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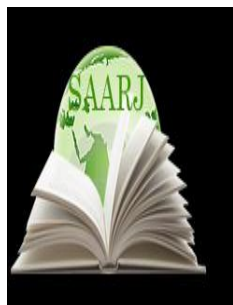
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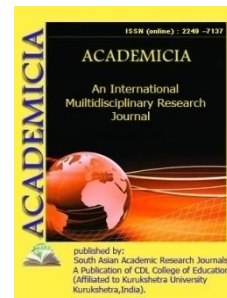
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## An International Multidisciplinary Research Journal

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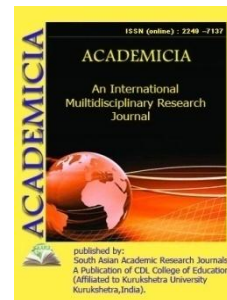
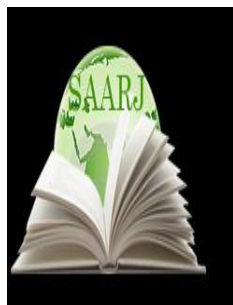
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## **A STUDY OF STRESS AND ITS IMPACT ON JOB SATISFACTION OF SCHOOL TEACHERS IN VADAMARACHI**

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### **ABSTRACT**

*The Stress of school teachers and impact on their job Satisfaction in Vadamaradchi School that is very important factor. There are so many teachers in Jaffna district Researcher selected 74 samples from the vadamaradchi in Jaffna district the study was guided by three hypotheses. Initially the hypotheses has been tested with the use of statistical tools namely, Correlation and Regression analysis Correlation and regression analysis used to evaluate the relationship between the stress and teachers and teachers job satisfaction. According to the analysis or with the evidence of data gathered “stress of school teachers and its impact on their job satisfaction in vadamaradchi” Based on my research, there is strong positive high relationship between the two variables. In highly industrialized countries where round the clock work prevails employees have to face extra ordinary level of stress. Such Countries no vehemently think of managing stress and alleviating employee s preferences. Fortunately we Sri Lanka who often enjoy holidays and strictly follow various faiths have not come to face such situations to that far. However, even in our country with its monetization and globalization such a situation is gradually developing as in Sri Lanka, there are organizations demanding much from their employees. The researcher has carried out a pioneer research in the government school in vadamaradchi to analyze the teacher s stress and its impact on their work. Usually people are more worry about their outcome of their work that can even affect the way they treat other people and how they communicate with their peers and customers. Some people use to accept the stress as a challenge in life and face the problems.*

**KEYWORDS:** *Stress, Job Satisfaction.*

## INTRODUCTION

No any individual person in this new busy world could himself get rid of the stress. It is the duty of an individual to know how to get victory over the stress daily. Many people are fighting to know about how to get rid of it in their daily life and get the victory. An attack on a person physically or mentally due to unexpected circumstances is known as the stress. Stress is not so serious one. There are several ways to rid of it. It could be won by taking the life easily and by getting hold of certain ways and by knowing about it mentally. Both mental trouble and stress are a mixed one. Some people use to accept the stress as a challenge in life and face the problems. Some are collapsed due to it. The professor Mr. Malcolm Tees states that stress seems to be as energy too in life. The people are the method of their rapid life move on to small towns and settle there for some changes or so. That is one of the prior information for the year 1990. However most of the managers engage than for their business. They are different for any other ways of living. If so, how do they undertake work wise? Or how are they involved in respect of it?

According to a recent research undertaken by Nelson quickly verifying the ways of life followed by those forms Director of oil field company, Director of health and welfare individual company, a Director of a big commercial bank and navy commander etc. and took in two executive level Directors in the research. They came to understand that the research officers such as Director of commercial institution dealing with sale of land and home, Director of commercial Institution dealing with settlement in life etc. in their involvement in that research with superior officers undertook their own ways.

## BACKGROUND OF THE STUDY

Job life is one of the important parts of our daily lives which cause a great deal of stress. Due to the competitive nature of the job environment most of the people in the world are spending their time for job related work purposes resulting ignore the stressor those are influence their work and life. Usually people are more worry about their outcome of their work that can even affect the way they treat other people and how they communicate with their peers and customers. For example, people with a higher percentage of occupational stress may not satisfy with their job and therefore they will not feel happy working in the organization. They may feel “burned out when they are having problem with peers or customers. They may leave a negative impact to the organization itself. Therefore it is very important for employer and employees to realize the stress and the stressor that cause all the negative effects.

Stress is one of the important factors that affect the employee's satisfaction. Stress is experienced by each person at work and life which is.

“Stress as the reaction of individuals to new or threatening in their work environment. Stress is usually thought of negative terms. The effect of stress has an impact on the individual works and the job satisfaction. There is a link between stress and job satisfaction in which the works become nervous and stressed by the alleged consequence of working in such job. Since the optimum stress level provides the best balance of challenge, responsibility and rewards” (Gibson, Inancevich, Donnelly 1994).

Stress is the term which is often loosely used to describe feelings of tension or exhaustion. Usually associated with too much or overly demanding, work stress is the product of demands made on individual's physical and mental energies.

Monotony and feeling of failure or insecurity are sources of stress, as much as the conventionally considered factors of pressure and over work.

It is worth remembering, to that demands on an individual's energies may be stimulating as well as harmful. Many people work well under pressure and even require some form of stress to bring out their best performance. Excessive stress, however, can be damaging to mental and physical health. This is why we talk about stress management, not elimination it is a question of keeping stress to helpful proportion and avenues. (ICSA – Study text, Management practice (Sep 2000) Sixth Edition)

A person comes across numerous stressors in his/her society and in institution where he/she works. Each person in his/her day today life expect different problems politically, socially, and economically and also in the institutions where he/she works. They come across many difficulties by the way of competition, working institution changes in technical works, working grad production, etc. Such type of problems creates stress result in creation of serious disadvantages later to the employees in the institutions. The problems connected with the works physically or conduct wise are generally created among the persons. As far as working institutions are concerned there will be problems due to downfall in working standard, more actions of employees, poor working condition, changes of employees miss understanding among them etc.,. Hence, stress later creates disadvantages by individually or institution. However stress does not remain as prevention of physical efficiency of an employee. Particularly when stress among the people are found to be moderate the employees will be seen as working very efficiently better than that of their usual work stranded.

Furthermore this type of stress is helpful to some people by the way of seeking better employment. The usual stress creates satisfaction in their works and as such it is found to be an essential one in human life. There stress should manage in proper way in order to get satisfactory works from the employees concerned.

Here the aim of the study is to identify the stressors issues that will influence the teachers' job satisfaction.

### **SIGNIFICANCE OF THE RESEARCH**

This research is used to find out the disadvantages caused by stress and job satisfaction of the teachers. Regarding the teachers of some leading schools in vadamadachi analyze is done to find out the type of disadvantages caused in their job satisfaction due to their stress. By the result of this analysis the main reasons for the stress of the employees, and the ways how to get rid much stress and to develop job satisfaction etc could be find out. Education is very important than any other services such as insurance bank, transport, etc. In a society teacher's services is also an important one. This helps many people to seek employment. Generally every teacher is trying to develop an educate society. Since the teachers work in different work surrounding all of

them cannot reach the some level of job satisfaction. Therefore it is necessary to find their stress in connection with the works and to find solutions to get rid of such stress and also increase satisfaction of the employees.

“The term stress defined as the reaction of individuals to new or threatening factors in their work environments” (hugh g.arnold,danniel, feld man 1986).

“Medicale researcher Hons Selye first used the terms “Stress” to describe the body’s biological response mechanisms. He defined stress as “the non-specific response of the body to any demand” it must be understood that in order for the stress to occur the response should be non-specific all response require utilization of energy. Any demand mode on the body that is for some specific activity which is natural expected and a part of the daily routine does not necessarily create stress. Even walking thinking writing and doing other physical activities. That is the part of the personal and organizational existence requires energy consumption of the body but is not necessarily stress producing forces. [Organizational behavior, Page 182]

In addition to this, this study is significant in the following ways.

- i. It could be found out as to what type of stress is caused to a teacher
- ii. Reason for the stress could be found out clearly.
- iii. It could be found out as to why the stress experienced by an individual various from person to person.
- iv. It could be found out as to what a job satisfaction is and to know the reason for the affection of job satisfaction etc.
- v. Relationship between stress and job satisfaction could be understood.
- vi. It could be found out as to how efficiently stress has been managed.

Stress is the one of the important factor that effects the employee’s satisfaction. In this research, stress measured against the teacher’s job satisfaction in the schools. There are 369 teachers working out of this only 20% (74 teachers) is selected various level of schools.

## **OBJECTIVE OF THE RESEARCH**

**The main objective of the study is**

1. To find out the relation between stress and job satisfaction of the teachers.

**The specific objectives are**

1. To find out the reason for the stress of the teachers.
2. To find out the stress formed due to problem in the day to day life of the teachers.
3. To find out the type of stress found among the teachers.
4. To find out the how to get rid of stress which their hate.
5. To find out the how to manage stress by way of doing efficient work.

## **LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK**

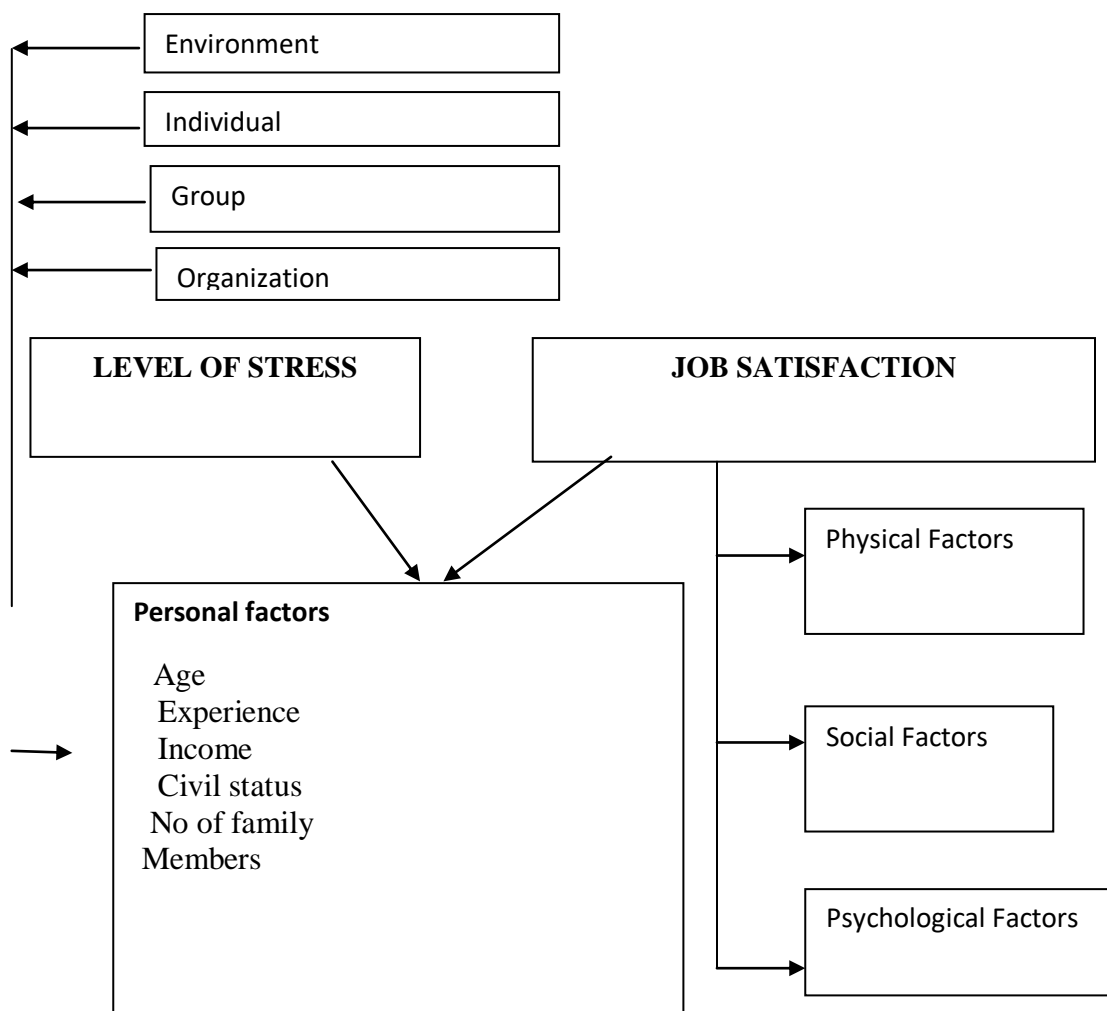
Aruncumar (2000) said that the existence of work stress in and of itself doesn’t imply lower performance. The evidence indicates that stress can be either a positive or negative influence on employee performance. For many people low to moderates amount of stress enable those to

perform their jobs better by increasing their work intensity alter ness and ability to react. However a high level of stress or even a moderate level sustained over along period of time eventually takes its all and performance decline. As stress increases so typically does absenteeism alcohol and drug abuse, for example cost employers billion of dollars each year in lost work time. A substantial part of this loss undoubtedly a reaction to personal and work – related stress. It's increasing to note that women suffer more stress than men and have higher absentee rates.

Jerald Greenberg Robert A.Berion (2003) said that the job satisfaction involves positive or negative attitudes towards one's work. According to the two factor theory, job satisfaction and dissatisfaction stem from factors associated with the work itself (known as motivation) and that factors leading to job dissatisfaction are associated with the conditions surroundings jobs and the value theory suggests that job satisfaction reflects the apparent match between the outcomes individuals desire from their jobs and what they believe they are actually receiving, however, evidence suggest that job. Performance is only very weakly associated with the dissatisfaction level of satisfaction can be raised by paying people fairly improving the quality of supervision, decentralization power, and assigning people to jobs that match their interest.

Arunkumar (2000) has been said that the impact of stress on satisfaction is straight forward. Job related tension tends to degrees general job satisfaction. Even thought low to moderate levels of stress may improve the job performance. Employees find stress dissatisfying.

Fres luthans (2002) said that there are a number of effects brought about by high job satisfaction. Research reports that highly satisfied employees tend to have better physical health, learn new job related tasks more quickly, have fewer on the job accidents, and file fewer grievances. Also on the positive side, it has been found that there is a strong negative relationship between job satisfaction and perceived stress. In other words, by building satisfaction stress may be reduced.

**CONCEPTUAL FRAME WORK****HYPOTHESES**

Based on the conceptual framework following operational hypotheses were formulated to carry out the study

H1: Stress and job satisfaction are positively correlated

H2: Stress has impact on job satisfaction

**METHODOLOGY**

Sri Lanka is an island in the Indian Ocean. It has a total area of 65610 km<sup>2</sup> with 64740 km<sup>2</sup> of land and 870 km<sup>2</sup> of water. Jaffna district is located in the far north of Sri Lanka in the Northern Province and occupies most of the Jaffna peninsula. It has a area of 1025 square kilometers. Vadamadachi is a region in the Jaffna district of Sri Lanka.

Jaffna district is situated in Northern Province of Srilanka. It population about 652184 people. There are 14 divisional secretariats. Its population is about 19.9 million. Srilanka has 25 districts and nine provinces for administrative purpose.

There are 80 schools in Vadamaradchi. But 16 schools have only been selected for the present study. For the research purpose, Questionnaire has been used. The Questionnaire was divided into three sections. In the 1<sup>st</sup> section personal details of the selected teachers. Section 2 Questionnaire was used to find out to what extent the stress of teachers exists in the school, section 3 Questionnaire was used to find out the teachers' satisfaction. Section 2 carries 13 questions and section 3 consists of 15 questions.

The following 5 scale method is used to disclose respondent's response, strongly agree, Agree, Not decided, Disagree, Strongly disagree. Based on the answered questions, the researcher can be able to identify what variable affect in the stress and what extent in satisfaction of selected teachers. The total score of stress will be the range of 13 – 65 and for satisfaction will be the range of 15 – 75

The following total scale are divided by the researcher for the conclusion of the section II questions (stress) <27 – low level stress, 28 – 41- moderate level of stress, >42 high level of stress

The following total scale are divided by the researcher for the conclusion of the part III question (job satisfaction) <35 – low level satisfaction, 36 – 55 – moderate level satisfaction, >56 – high level satisfaction

## METHOD OF DATA ANALYSIS

SPSS used to analysis the data to test the hypotheses. The correlation and regression analyses were used to testable hypothesis and find the reliability.

## RESULTS AND DISCUSSION

According the mean value the most important factor determining the satisfaction is challenging job and factors achievement. The least factor determining the satisfaction is autonomy.

### Relationship between stress and satisfaction

TABLE 1

Independent variables	Job satisfaction Pearson's Correlation(r)	Significant Level (p)
Stress	.258*	.005

According to the Table: 1, results of the Pearson's correlation shown, there is a weak positive significant correlation between stress and satisfaction. Furthermore, correlation values of these independent variables having with satisfaction, which thought changes in these predictor variables positively, contribute towards changes in satisfaction, but changes would be significant at 0.05 level.

The correlation analysis made on the two variables such as stress and job satisfaction of the teachers. Through the correlation value, we can say that there is positive relationship between stress and job satisfaction.

The correlation value among the teachers' stress and job satisfaction is 0.258 which is significant at the 0.05 level.

So there is positive linear relationship between the teachers' stress and job satisfaction. Hence the relationship, Hypothesis (1) is accepted, that low stress will lead to the employees satisfaction. There is a positive linear relationship between teachers' stress and job satisfaction.

### Impact of stress on satisfaction

This analysis is used to estimate of the dependent variable for given values of the independent variable. It also provides and estimates of the effect on the mean value of y one unit change in x. This analysis enables the researcher to estimate this slope and to test hypothesis concerning its value.

### Statistics of Regression between stress and satisfaction

**TABLE 2 REGRESSION STATISTICS**

Multiple R	.258 <sup>a</sup>
R Square	.066
Adjusted R Square	0.54
Standard Error	3.256
Observations	74
Sum of Square	54.386
F – Value	5.129
Significant Level	.027 <sup>a</sup>

According to the table 2 Coefficient of determination –  $R^2$  is the measure of proportion of the variance of dependent variables about its mean that is explained by the independents or predictor variables. The adjusted R square value indicates how well the independent variables influence the dependent one. (Benjamin 1999)

The specification of an independent variables in the above model reveals that the ability to predict the satisfaction. R square value of 0.066, which is in the model, denotes that 6.6% of observed variability in stress can be explained by the differences in the independent variables. Remaining 93.4% variance in the satisfaction is related to other variables. Further, F value is 5.129 which is significant which is significant at 0.05% ( $p = .000$ ).

### FINDINGS OF THE RESEARCH AND TESTING HYPOTHESES

The objective of this study is to find out the impact stress on satisfaction of the school teachers of Vadamaradchi in Sri Lanka. The findings are based on collected data from the sample of 74 teachers in schools of vadamaradchio in Sri Lanka for the year 2011.

Empirical findings of the Research and Testing Hypotheses

**TABLE 3**

Dependent Variable	Satisfaction		
Independent Variables		T	Significant
Stress	.258	2.265	.027

The study's second hypothesis ( $H_2$ ) formulated as "stress" has impact on teachers' satisfaction. In the above, indicates that stress has impact on satisfaction. Therefore this hypothesis is accepted, and also that impact is statistically significant.

The study's first hypothesis ( $H_1$ ) formulated as "Stress" is positively associated with satisfaction of the organization. In the above table, beta coefficient of the stress indicates positive association with satisfaction. Therefore this hypothesis is accepted; even that impact is statistically significant.

According to our empirical results, all hypotheses are accepted.

## CONCLUSIONS

Based on the presented data and analyzed data by using statistical techniques this study brings some findings. This study carried out in the selected schools in Vadamaradchi.

That there is no low level of stress in these selected teachers. Most of the teachers (97.3%) in school are working under the high level of stress. (2.7%) of teacher's sense moderate level of stress in selected school in Vadamaradchi.

According to the correlation value, overall relationship between teachers' stress and job satisfaction is 0.258\*. It is significant at 0.05 levels. There is positive Lenoir relationship between the teachers' stress and job satisfaction. That means the least stress will lead to the teachers' satisfaction. So hypothesis 1 is accepted.

Perhaps the coefficient analysis indicates the satisfaction of teachers is contributed by many factors. Based on the coefficient analysis the impact of stress on the satisfaction, the following equation can be formulated.

$$JS = f(s)$$

$$JS = f(22.722 + 0.225)(s)$$

The above equation reflected that on stress with zero point would be expected satisfaction is 22.722. An increasing of 1 point of stress is associated with the increasing in satisfaction at 22.722% not only the stress; other factors may have the impact on teachers, job satisfaction. They are, Motivation, Promotion, Working condition, Compensation benefits, Training and so on there are not analyzed, because these are outside the scope of the study.

## SUGGESTIONS

There is various factors on the teachers' job satisfaction in selected schools in vadamaradchi. The following suggestion should be arranged in the selected schools.

Teachers' participation should be increased to these selected schools.

Suitable teachers should be eligible for promotion.

Satisfaction of teachers is an important aspect in school. In this research teachers' satisfaction is only measured against the stress.

This research has been made on the basis of 74 samples; the future research could extend the sample size to ensure the truth of this research.

The school has only selected for this research. So the future researcher could be performed similar research in various organizations.

Teachers who are under high level of stress, some specific suggestion can be used to reduce the stress. The following are list out to reduce the stress.

Exercise: such as working, joking, swimming or playing soft ball are reduce the stress. Although that exercise will directly reduce depression, anxiety and the chances of heart diseases.

Relaxation: the specific relaxation techniques such as bio feed back or meditation is to eliminate immediately the stressful situation.

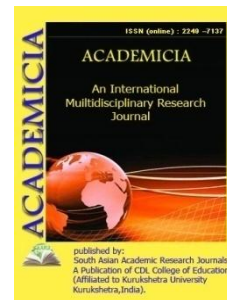
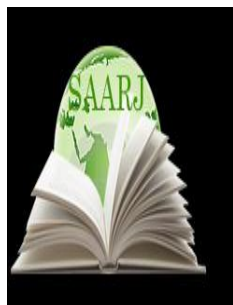
Reduce role conflict and clarify organizational role: teachers must have a clear understanding of the job and must know what the organization expect.

When the excessive stress, reducing the role overload by redistributing the work and implementing procedures for reducing stress should be made by organizations.

Plan and develop career paths and provide counseling: organization must consider the career planning and development of their employees' in reducing the stress.

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## TEACHING CREATIVE THINKING TO SECONDARY SCHOOL STUDENTS THROUGH INDEPENDENT EDUCATION IS A PRESSING ISSUE

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### ABSTRACT

*This article describes the problem of increasing the self – activity of the assimilation of knowledge independent thinking by organizing self – education in higher educational institutions. Independent education is the organization of regular independent activity in accordance with the subjective purpose of the educational process on the formation of self-education, independent learning, the development of imagination and the formation of cognitive skills. One of the first principles of the independent learning factor is the intellectual mastery of scientific ways and advanced pedagogical practices. Scientific knowledge is a true reflection of reality.*

**KEYWORDS:** *Self – Education, Thinking, Education, Development Activities. Practical Lessons, Free Thinking, Activities, Self – Study, To Exchange Opinions. Training, Tree Thinking, Discussing, Education Activates, Self – Thinking.*

### INTRODUCTION

Organization of independent work of students on the basis of the Regulation approved by the order of the Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan

dated August 14, 2009 No 286 "On the organization of independent work of students" is one of the problems. As the President said: "If students do not learn to think freely, the effectiveness of education will be low. Definitely need knowledge. But knowledge goes its own way, and independent thinking is a great asset. An important condition for the development of society is the perfection of the training system, the socio-economic development of the country, improving the quality of personnel, the formation of independent, creative thinking skills of students, as the President emphasized. If students learn to think freely, the quality of education will be high!"

To this end, the main task of teachers and educators is to provide students with independent education and independent work, in turn, to be able to apply the knowledge and skills acquired in the classroom, to strengthen their skills, to master them consciously. are divided into groups according to the specific characteristics of the bird, and it is necessary to take into account the results of individual independent training.

Identifying problem signs in independent learning allows you to separate important information from secondary information and look for factors and additions.

Subjective of the educational process to strengthen the knowledge of students studying in secondary schools, self-education, independent work, development of knowledge, the formation of understanding, skills, abilities is to organize regular independent education in accordance with the purpose.

Independent education - when successfully completed, students' independence is nurtured.

Usually, independent learning is brought to the attention of students in the form of a problem that can be solved immediately. In the process of offering students independent learning as a problem, in the process of searching for or expressing conditions in specific problem situations, the activities organized by the subjects seem to be performed by the teacher instead of the students.

In independent study, the conditions are not known in advance. If in the process of independent educational work provided by the teacher, the student cannot find a solution, then in the face of a specific situation, he cannot turn this independent work into a situation that allows him to seek a solution.

Independent study requires strict adherence to certain didactic tasks.

When the conditions of independent study are set in advance by the developer, the student is not required to demonstrate the ability to change.

In independent learning, you have to complete tasks that do not have more conditions. On the basis of independent learning, the subject becomes acquainted with the laws of changing conditions, uses existing skills and abilities to analyze a specific problem and perform independent work.

Forming concepts using independent learning allows subjects to independently identify problem signs, separate important information from secondary information, and search for additions.

Independent learning, which allows for independent work, involves the creation of favorable conditions for students with low levels and dissatisfaction with the development of concepts, motives and values.

Independent education is the organization of regular independent activity in accordance with the subjective purpose of the educational process on the formation of self-education, independent learning, the development of imagination and the formation of cognitive skills.

One of the first principles of the independent learning factor is the intellectual mastery of scientific ways and advanced pedagogical practices. Scientific knowledge is a true reflection of reality.

Only knowledge that reflects the laws of the world around us, the important internal properties and interrelationships of things and events, is scientific.

The scientific principle of independent education is necessary in order to create the right conditions for the teacher to reflect, understand, master the laws of the teaching material.

Understanding of theoretical rules is an important feature of interpreting material on a scientific basis, which determines the characteristics of the student's thinking activity. Scientific knowledge can reflect the realities inherent in science to varying degrees. The scientific interpretation is that one of the tasks of the rules of science in each group at all stages of independent learning is to understand the structure of theoretical data, in terms of how deeply it reflects the world around them.

In the process of acquiring scientific knowledge, students acquire a scientific outlook and beliefs. Thinking develops.

The principle of the scientific nature of independent education is to equip students in the educational process with modern scientific knowledge in accordance with modern standards, aimed at acquainting young people with the methods of scientific research.

Therefore, in the education system, the role of the teacher is great in the free, creative, independent thinking of students in the educational process and independent work. It is expedient to use independent work in the structure of education and two principles in its organization - the principle of systematic and consistent work of independent work.

The historical experience of the institute in each period of social development shows that the task of education cannot be accomplished without a certain system.

The system of explaining the learning material depends on the ideas that are clearly stated in the learning material, which of these ideas the teacher wants to explain, how old the students are to allow them to acquire knowledge, whether the student knows well or not. and the nature of students' thinking activities at this level depends on how the process of acquiring knowledge in the classroom is usually explained.

Independent work is about being systematic, consistent. A characteristic feature of consistency is that it is aimed at further deepening, expanding and strengthening new knowledge, skills and abilities on the basis of previously acquired knowledge and skills of students.

Independent work is also important in showing that the disciplines of each discipline are inextricably linked to each other through the principle of structure and consistency.

The principle of independence of independent education is to strengthen the teaching materials and to supplement the previously taught materials, to ensure that students work independently

and continuously and systematically, to ensure that the knowledge and skills acquired by students. The acquired skills also include taking into account their skills.

The three principles of organizing independent work are to link it with the practical activities of independent work.

Linking independent work to life and production practices is the most basic and guiding rule. As students' independent, creative activities are served and connected to life, it helps them not only to master their content, but also to apply their knowledge in practice.

In the organization of independent work, it is effective if the tasks between the members of the group are clearly approved, and cooperation is established. The following elements should be taken into account in the organization of independent work of students.

1. Preparing students to work in groups, clearly adding learning tasks, giving an idea of group work, setting rules.
2. Develop and discuss a plan for completing the assignments. Identify solutions and share responsibilities.
3. Be able to organize work on the completion of educational tasks.
4. Monitor the work process and the workplaces of the members in the organization of group work and provide assistance if necessary.
5. Provide information on the results of the tasks in groups, group discussions, additions and corrections to the work process. The teacher draws conclusions and summarizes the results of the work.
6. Establish peer review and monitoring of group assignments.
7. Analytical assessment of the results of each group's work, group work.

The success of group work depends on the teacher's ability to organize learning activities.

In other words, the ability of the teacher to organize the individual activities of each student in the group, the ability of each student to receive the support of the teacher, the success of the work depends on the ability to show the end result. There are a number of shortcomings in the organization of group work. One of the challenges is to be able to form groups with the right goals and organize work in them.

The success of group work depends on the teacher's ability to organize learning activities.

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The work gives the expected results. Independent work is provided to develop work skills in interactive methods. In independent work, students think creatively, develop skills and competencies to use in their learning activities.

In the organization of the educational process, the teacher must first pay attention to the content of education, scientific, modern, compliance with the STS.

Training is one of the main forms of additional education, the peculiarity of which is that students learn to use time efficiently, independently, to work, to make decisions.

There are so many types it's hard to say. For example, group discussions, game-based methods, situation modulation, human sensory development techniques, mediation techniques, and more.

Group - discussion - this method requires theoretical and practical, creative participants in the joint discussion of problematic issues. Such methods are designed to look at the solution of the problem from different angles, each participant has a different opinion on the solution of the problem, and on this basis a solution is reached. The facilitator leads the discussion by asking a variety of questions and initiating them. If team members ask a question, they can find a solution without a leader.

The training can begin with a discussion of the rules of organization, end with a discussion of questions such as what is a group, the formation of the group, the criteria by which it is formed. Effective training leads to the acquisition of new skills, the development of creative, independent activities.

The trainings have the peculiarities of organizing independent work in groups.

- In this form, students are divided into groups, and each group is given specific, individual tasks.
- Each group works on separate (ie identical or stratified) tasks.
- The task is based on interaction or is organized under the guidance of a leader.
- In groups, the task is carried out in such a way that at the end of the session, the contribution of each participant or group member is taken into account.

The composition of the group may not be permanent, they create an environment in which a member of the group can make his or her maximum contribution.

Groups can be formed in different sizes. Usually groups consist of 4-6 members.

It may change depending on the content and nature of the assignment.

The group should be formed in such a way that the presence of students in each group with the skills of independent work gives the expected results.

Some students felt the need for individual help in organizing group work. In such cases, it is advisable for the teacher to help students who are not well prepared.

Group learning - educational activities, laboratory work, practical training, practice in the natural sciences, speech practice in the natural sciences, speech development (dialogue), mastering texts, studying historical materials and pedagogy very helpful in their lessons. In these cases, group communication and independent work give good results.

Practical classes are organized on the basis of scientificity, conformity to the nature of the student, consistency, structure, comprehensibility, robustness, comprehension and activity, the relevance of the exhibition to practice, the ability to apply in practice and develop independent thinking and achieve the following .

- When using active methods, he uses all his strength and skills to organize practical training, tries to explain well with the help of visual aids, didactic handouts. The teacher discusses the topic with the students. Solves exercises by giving creative work. Performs their development through independent work, repetition. They will be able to master the content of education. The organization of practical classes on the basis of new technologies creates a favorable environment for students to master the learning process, allows students to exchange ideas. Conditions will be created for mutual receipt and transmission of information. They discuss and resolve issues that need to be resolved. They find a joint solution to the situation. They demonstrate their knowledge to each other based on the information they receive. Inspired by each other, they are satisfied and do not know that time has passed. Each participant feels the content of education as an author. Achieve full mastery of the content of education.

The practical training is focused on everyone by the teacher, that is, there is a bit of abstraction.

Curiosity motivates everyone, regardless of their abilities, to search, think and work towards the same goal.

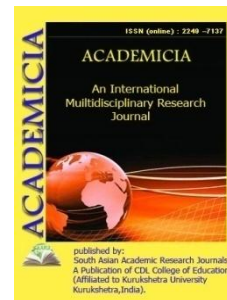
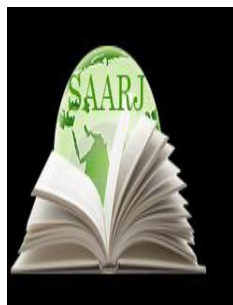
Due to the fact that students have the same level of development and preparation, the acquisition of knowledge and skills does not guarantee the same results.

Therefore, it is advisable to focus on questions and answers, laboratory work, exercises in the practical classes as much as possible for the student.

In conclusion, it should be noted that practical training should be organized on the basis of interaction, interaction, debate, debate, thinking, and joint solution of an activity or problem.

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## IMPLEMENTATION OF ENGLISH INTO THE MULTICULTURAL AND MULTILINGUAL EDUCATIVE ENVIRONMENT OF UZBEKISTAN

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### ABSTRACT

*The pandemic increasing prominence of English in the world and international recognition of this language as the most favorable and convenient for people to communicate in the world leads us to the requirement to more intensively introduce it into the educational sphere of Uzbekistan and to provide education not only in higher education and schooling, but in secondary professional education and from earlier years from preschool educational institutions. As a consequence of globalisation and integration, there has been a tremendous increase in intercultural communication in all spheres of our existence: there has been a diversity of situations of intercultural exchange, such as studies at school and university, internships of scholars, international conferences, joint ventures, tourism tours and exhibitions, etc. Therefore, proficiency in a foreign language is one of the conditions for successful adaptation in a community environment[1, p.562]. Since the twentieth century, the importance of English as one of the measures of human successfulness and education has been growing, which immediately leads to a stronger and more profound teaching of English. Students with a high level of English competency are more inclined to incorporate the most up-to-date standards of quality into their careers as they develop their academic careers[1 p.563,]. In this article, the present research provides an understanding of the possibility of introducing and exploring English as a mandatory language in the multilingual, bilingual and multicultural environment of Uzbekistan through the prism of tolerance and the specific cultural and moral features of the population of Uzbekistan, as well as contemporary development of education and tourism in the region. The article provides an insight into the opportunities for the introduction and study of English as a required language in the bilingual and polylingual, multicultural environment of Uzbekistan, as*

*well as the possible models of learning English in the polylingual environment, the challenges and proposed solutions.*

**KEYWORDS:** *Bilingualism, Polylingualism, Multiculturalism, English, Tourism, History, Tolerance.*

## INTRODUCTION

In the contemporary world Uzbekistan is facing the challenge of progressive though proactive integration into the world scientific, technological and educational arena with the aspiration to check "one hour, one time" with the other countries in innovative and recognized educational programs, as well as in the globalization of universal science and education through the constant exchange of expertise with the world through online, regardless of the perceived difficulties of this phenomenon.

The necessity to adopt and explore the English language is also due to the attraction of Uzbekistan as a center of destination for tourists and pilgrims from all over the globe.

In accordance with the Decree of the President of Uzbekistan ShavkatMirziyoyev from February 3, 2018 "On additional organizational measures to create favorable conditions for the development of tourism potential of the Republic of Uzbekistan" for the citizens of Indonesia, Malaysia, Singapore, Turkey, South Korea, Japan, France, Israel and Tajikistan established visa-free regime, for tourists from 39 countries - a simplified visa procedure. The simplified procedure of obtaining visas has been introduced for the citizens of 50 countries, transit visas - for the citizens of 101 countries [2].

The Economist called Uzbekistan "Country of the Year"-2019. The magazine emphasizes that this country has a long path to recovery, but in 2019 no other country was able to advance so dramatically [3].

Uzbekistan has been ranked as the most rapidly developing tourist destination by the British Wanderlust Guide Awards. In 2020, Uzbekistan can rightfully claim to be among the most frequented countries [4].

Nowadays, Uzbekistan is increasingly being opened to the visitors from neighboring countries and distant abroad, there is an intensive dialogue and strengthening of relations and connections with neighboring countries. The efforts of the leadership of the country on balanced, mutually beneficial and meaningful foreign policy are increasingly attracting a number of people from around the world to visit Uzbekistan.

In April 2019 [5], Singapore's Crescent Rating and Mastercard organization compiled a rating on halal-tourism, in which Uzbekistan was included in the top ten most attractive destinations for ziyar-at-tourism (Muslim pilgrimage) among the member countries of the Organization of Islamic Cooperation (OIC) according to the Global Muslim Travel Index 2019 (GMTI), along with such countries as Saudi Arabia, Turkey, Morocco, Iran, Bahrain, Malaysia, Kazakhstan and Indonesia.

This annual report is prepared by the Singapore company Crescent Rating and Mastercard. GMTI is based on factors such as climate, security, economy, religion, transport infrastructure and services in countries.



**Figure 1: Rankings of the highest countries to be visited by a Muslim pilgrimage.**

### Methods of research

The historically-cultural and spiritual sanctuaries located here attract people of many different confessions, religions and faiths, native speakers of several languages, thus contributing to the development of international globalization and the demand for more consideration of the national peculiarities of the arriving guests by learning a "common" language which is understandable to all, thus making English compulsory for learning in the educational system of Uzbekistan, not only the preferred language as it is at present.

In the process of becoming a participant in any form of inter-ethnic contacts, people engage in communication with representatives of other cultures, and often these cultures have significant differences from each other. First and foremost, this is reflected in their traditions, languages, apparel, standards of social behaviour, attitude to work performed and national cuisine. These factors often make communication difficult and in some situations unattainable. However, these are merely individual issues of cross-cultural encounters. The principal reasons for their failure are not within the bounds of obvious differentiation. They are in particular variations in the way they perceive the world, i.e. in their special relationship to the world and to other people.

It is worth mentioning that we frequently perceive other cultures through a certain prism of our culture, and for this reason our observations and conclusions are limited to its framework. By making a considerable effort, we are able to understand the meaning of actions, statements, activities, which to some extent or completely are not characteristic for ourselves and our nation. From the above-mentioned it is evident that effective intercultural communication cannot arise

automatically, it requires its formulation and development, as well as tolerance and acceptance of other nationalities [6, p.321].

The comprehension and adoption of other cultures is an influential component in the process of Uzbekistan's introduction into the world space. For the awareness of both one's and others' cultural and valuable attitudes necessitates formed cognitive self-control, which assumes that the individual is in a regime of constant awareness, engaged in self-assessment, self-knowledge and search for a solution to the problematic state of affairs. This demands certain standards by which the personality assesses and motivates itself to demonstrate its transformation ability in accordance with these standards. Through these observations of oneself and others in permanently shifting circumstances of socialization, the tendency to ignore negatively constructed individuals can be developed [7, p.80].

### **Results of the research**

Bilingual and multilingual education has existed in Uzbekistan for many thousands of years. Uzbekistan's geographical location, history and the coexistence of different cultures, ethnic groups and ancient and late religions (Zoroastrianism, Buddhism, Manichaeism, Mazdakism, Islam, Christianity and Judaism) have contributed to the crossbreeding of representatives of different ethnic groups and speakers of different languages, thus mutually enriching the culture of peoples and their knowledge of the world system and providing examples of intensive and productive interfaith dialogue, sociocultural interaction and inter-ethnic tolerance.

This has led to the spontaneous formation of multilingualism, along with the artificial and systematic introduction of languages, allowing people to communicate not only in their native language, but also in the languages of other peoples living in these territories. Thus, today in Uzbekistan, both in the bordering areas and deepening inside the country, we observe the bilingualism and poly-linguality of the people speaking not only the title language - Uzbek, but also other languages: Turkmen, Tajik, Kazakh and Kyrgyz. One of the dominant languages most commonly spoken and covering a fairly large population is Russian, which in the recent past dominated all spheres of life.

As JusupovMakhanbet observes in his study: the presence in the system of language education not only bilingual, but also trilingual and quadrilingual education in Central Asian countries is explained by the peculiarities of the sociolinguistic situation. Thus, in this region (Kazakhstan, Uzbekistan and Karakalpakstan, Kyrgyzstan, Turkmenistan and Persian-speaking Tajikistan) both closely related (Turkic) and multi-system languages (Arabic, Farsi - in the diversity of Tajik) have been functioning for millenniums, and from the 20th century to the current time - Russian as well as English (especially in the last 20-25 years). Russian language "entered" this area approximately 300 years ago, and began to function after the October revolution (1917), intensively and totally - from the second half of the XX century [6, p.57-58].

In nowadays world, when selecting a particular profession, a person more and more assures that English is essential for him/her in accordance with the principle of profession-oriented foreign language teaching.

According to the latest figures [9], the total population of Uzbekistan today is over 32 million people, the average age of which is 26.3 years. The percentage of people under the age of 15 is 26.5%, while between 15 and 65 it is 68.8%. The English language can be the door to the world

for a tremendous number of specialists in Uzbekistan, their exchange of experience, enabling a more comprehensive study of their specialty and improving their competitiveness, contributing to a successful career. Cultural achievements and scientific discoveries are published ever more often (or primarily) in English, and in numerous spheres of human activity they have become important: in tourism, sports, science, air transport, technology, trade and art.

In such cases, profession-oriented learning is considered to be learning based on the requirements of students to learn a foreign language, determined by the features of the future profession or specialty, which, in turn, require its detailed study. The term "professionally oriented instruction" is used to refer to the process of teaching a foreign language, for instance, in a non-linguistic university or in a non-verbal faculty focused on reading literature in an occupation, learning professional vocabulary and terminology, and on communication in the occupational field [10, p.7]. This expands the range of opportunities: obtaining new information, participation in international projects, foreign internships and scientific conferences, search for new areas of research, establishment of international contacts already at the first stage of the educational process. Hence, comprehensive development makes it possible to accelerate the process of raising the scientific and technical level of young scientists and their formation as young experts [11, p.576].

## DISCUSSION

It is noteworthy that in the attempted introduction of the English language it is appropriate to exclude any "aggressive" methods, because the most significant point is that the integration should be carried out in a manner that does not reduce the influence of national cultures and thus do not damage the uniqueness of national identity of the people, analyzing the circumstances and opportunities of the existing educational system.

On the other hand, leniency in this context should also be eliminated. In order to develop a multilingual environment, it is necessary to be creative in thinking and operating, to be able to question one's cultural attitudes and sometimes even to abandon the usual, comfortable stereotypes in order to look at the problem from an unusual angle of view. Ultimately, someone else's experience allows us to look at ourselves from a distance, to understand who we are [12, p.9].

In response to the possible fears of some opponents of English "expansion", Ursula Lindsay quotes Sheikha Abdullah Al Misnad, President of Qatar University, as saying that "English is not a language, but a skill, you have to learn it the way you learn to use the computer, the Internet" [13]. The same view is echoed by researchers who say that English, as it is used in international education and science, will remain just a communication tool and a medium of knowledge, not a cultural carrier [14].

In a series of Western European countries, the problem of multilingualism was addressed in the middle of the 20th century. The unification processes taking place in the European Union do not contradict the ideas of diversity of national languages and cultures. [15, p.39]. Examining Western experience in overcoming difficulties and recruiting foreign specialists, it is feasible to accelerate the implementation of the English language in Uzbek education.

**CONCLUSION**

An interest in languages in general and English in particular should be cultivated. Therefore, a distinctive part of this process should have a verified language policy of the state, the development of effective teaching methods, the creation of educational literature that corresponds to the requirements of the time, the production of bilingual dictionaries, the introduction of modern multimedia learning methods, etc. [16, p.2]

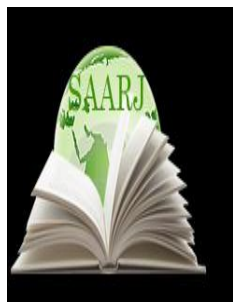
The system of foreign language teaching is primarily determined by social and economic factors that create a positive or negative context for addressing language policy issues in society. The socio-political level is the foundation for the functioning of the foreign language teaching system. Socio-political factors are a priority, as they determine whether foreign language teaching will be implemented at all. [17, p.7]. It should be mentioned that such policy, for example, is established in China at the state level. All Bachelor's and Master's students are required to study English during all years of study, and at the conclusion of their educational program take the Unified National English Test (College English Test), which is accepted by all companies and organizations in China. This policy has been in place for over thirty years [18, p.77].

The importance of the English language in Uzbekistan is noticeably growing, and the advancement of tourism, business relations, IT-technologies and modern mobility in all spheres of society accelerates and simplifies this period. In addition to the mandatory introduction of English into the educational environment, the prompt integration into the international community is guaranteed.

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## BEGINNING SCHEMES IN UZBEK FOLK TALES

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### ABSTRACT

*The article examines in detail the beginnings used in Uzbek folk tales, their stable connections. The study is significant in that it covers about 500 fairy tales presented as examples of Uzbek oral art, identifying the scheme of the beginning in each fairy tale. The author marked the clichés in fairy tales with special elements and defined the formulas that formed the basis of the beginnings. It also provided interesting information on the scope of the formulas.*

**KEYWORDS:** *Fairy Tale, Cliché, Formula, Scheme, Element, Beginning, Initial, Medial, Final, Traditional.*

### INTRODUCTION

According to the Romanian scientist Nicolae Roshianu, it is expedient to study the schemes in fairy tales into initial (beginning), medial (intermediate) and final (concluding) formulas. The scientist divides the initial formulas into two types: temporal (chronological) and spatial (topographic) formulas [15]. These formulas have become stable and are found in the beginning of fairy tales.

Typically, the time in which the story is told is denoted by **T**, and the place in which the events take place is denoted by **S**. The **E** element is used to record the protagonist and the events themselves. The letter **V** was chosen as proof of the truth of the events in the fairy tale.

Accordingly, each of these elements is loaded with specific functions. In particular,  $E_1$  – represents the presence of heroes in the fairy tale.  $E_2$  and it means that something is going to happen.  $T_1$  records when the heroes lived, when the events took place,  $T_2$  indicates that the event will not be repeated, that is, that the event will be extremely rare. In addition, the  $\tilde{V}$  sign, which contradicts element **V**, which confirms the veracity of the events in the fairy tale, that is, what is said is a fabrication.

**MAIN PART**

At this point, the question arises as to which of these elements leads in the initial formulas of Uzbek folk tales. In general, can these elements cover the schemes in our fairy tales?

We have published 14 Uzbek folk tales in order to conduct research on this issue [1; 2; 3; 4; 5; 6; 7; 8; 9; 10; 11; 12; 13; 14] 500 We have considered the following. It is noteworthy that in 453 of the 482 works presented to readers as folk tales, that is, in 94% of the works we have seen, ready-made beginnings were used.

The  $E_1$  symbol, which represents the presence of a protagonist or several characters, is the most commonly used element in initial formulas. That is, in 398 of the fairy tales at our disposal, that is, in 83 per cent of the works we have seen, the existence of some kind of hero is already acknowledged. For example, the fairy tale "The Judge's Deceit" begins with the words "There is a king", while the fairy tale "The Maid and the King" is based on the saying "The king has forty wives". Both of them form the simplest formula in Uzbek folk tales ( $E_1$ ). Interestingly, E time (T) can also mean meaning independently of the elements denoting and place (S). But T and S cannot form a separate formula, just as the protagonist ( $E_1$ ) and the events ( $E_2$ ) cannot have a complete meaning without description. Only 2 fairy tales have an exception. In particular, the fairy tale "Dragon Bird" begins with the words "Once upon a time there was a scary cave in the arch of a large mountain [ $T_1S_1S_1$ ]", and the words from the fairy tale "Bale, bale, bale" located.

One of the peculiarities of the  $E_1$  element is that the existing characters in fairy tales are sometimes called by common names, nicknames and specific names. In particular, in 63 of the beginnings in which this element is involved, the hero is named by a specific name. For example, at the beginning of 16 fairy tales you can meet kings with a specific name. In the story "Shogarib with a patch" it is acknowledged that "there is a king named Valikhan and a patcher named Kholdor". The tale of Mohistara tells the story of the "past of a king called Odil." The fairy tale "Where there are no mosquitoes" - "King Boykaro lived", the fairy tale "Three saints" - "There is a king named Davlatshah", the fairy tale "Gulfarah" - "There was a king named Abu Ja'far", the fairy tale "Doro and Iskandarbek" "The Great King Darius Has Passed", "The Tale of Hasan and Husan", "There is a King named Yu-San-Chin", "Slander", "A King named Khandarkhan Lived", "Masturakhon" is the name of a city king named Kisht Turamkhan. "The Frost" tells of a king named "Khundarkhan", the "Wise Zulayha" tells of a king named "Anvarkhan and he has a wife named Zulayha", the "Mysterious Dream" of a "King named Zunnun", Iskandar and Dorop", "Darius and Faylaqus were kings", "Sherzod and Gulshod", "Khurshod", "Rustam", "Somi Narimon", "Gavhar", "A king nicknamed Caesar". begins with "Emerald and Precious", "Bahodir who killed five souls", Soqi mumsik and Boqi mumsik, Momir and Samir, Erkajon, Bakijon and Guloyim, Jamila, "Oshkavak" (the main character is Boltaboy), "Sahibjamol", "Navoi and Hussein", "Oypari", "Tongildoq with Shongildoq", "Kal with Oyjamol", "Botir", "Farrukhbakht", "Pahlavon Rustam", "Ayiqqolvon", "Hazratqul", "Khurshid with Layla", "Kilich botir", "Orzijon and Kambarjon", "Gulshah and varqa", "Bahrom and Sherzod", "Malikai Birmisqol", "Mysterious mirror" (hero - Mamatmusa), "Hasan and Huriliqo", "Luqmoni Hakim", "Two Doctors" (hero - Ahmad's broom), "Husniyabonu", "Chinnioy and Bakhtiyor", "Five Girls", "Bektemir Batyr", "Eralihon and Three Thieves", "Zulhumor", "Navruz robber" are also named from the beginning.

In the fairy tale "Afendi and Azroil" the image of Efendi, familiar to us through Uzbek folk anecdotes, becomes the protagonist.

The descriptions given to the heroes in the tales of "Khoja Tambal", "Vospirokhun" (which have the images of the White King and the Black King), "Davlat" (depicting the image of the Peasant Father) have become their names. Abstract horses such as Mind, State, Wealth, and Happiness also take part in the fairy tales "State with Mind", "Mind and Wealth", "Happiness with Mind".

The heroes of the fairy tale "The Magician" are named Egarboy and Yuganboy. Also husband, wife, old woman, brothers, one son, three sons, forty sons, one daughter, one man, one man, one young man, one old man, one king, one khan, one farmer, one miller, one coranda, a herdsman, a mother, two friends, two friends, two neighbors, a woodsman, a carpenter, a seamstress, a carpenter, a sniper, a hunter, a merchant, a sage, a blacksmith, an old woman, a forty minister, a images included a patch, a wolf, a cat, a sparrow, a fox, an ass, an ox.

Interestingly, 'one king' and 'one old man' are more involved than others in this type of initial formulas.

"A wolf and a fox are friends", "In the past a poor young man lived by hard work", "A good woman is always spring", "Navoi's father died in his youth", "Shepherd with Navoi", "The girl named Shirin is so beautiful that when she grows up, the description of her beauty spread all over the world, at that time the moon was the most beautiful", "Sweet girl", "The fox with the stork" We were a little hesitant about what the story of the storyteller Murqumomo, which begins with, "The Stork and the Fox," and "A poor old man picks up firewood from the wilderness and buys," begins. In the end, we concluded that these notes were not a direct beginning of the events, but a brief description of the protagonists, and we decided to label them with the element  $E_1$  as well. Because the movement of the heroes in these fairy tales is activated not in the beginning, but in the next places

The 29 plays in the collection contain a direct description of the events. That is, they do not have any clichés. For example, the fairy tale "The Deer and the Fox" begins with "A deer jumping from a mountain to a mountain, playing and looking for water", and at the beginning of the work "Tolgonoy" there is a sentence:

The fairy tale "No to be upset" gives the impression that the story begins in the middle. For some reason, the narrator chose to start this tale as "Boltaboy went to the rich man's yard to avenge the tyrant who killed his brother Teshaboy by starvation." Also, "Fox with a Rooster", "Stupid King", "Happiness with Wisdom", "Farmer with a Beck", "Proud Goose", "Snake's Work Poisoning", "Two Friends", "Sick with a Doctor", Tales such as "Smart Girl", "Sparrow", "Flyboy" do not say when and where the events took place, whether the event was unique or ordinary, or even the identity of the protagonist. The beginning of fairy tales in this way is usually marked by the element  $E_2$ .

Sentences from the tales of different nationalities, such as "If it weren't for that, they wouldn't have said it," "The old people say it, and they should be trusted," do not appear in the beginnings of Uzbek folk tales. Even the phrase "as they say, narrated" is mentioned only in our narrations and legends. For this reason, we are right to say that element V, which confirms the truth of the events, is a unique phenomenon for Uzbek fairy tales. After all, the constant phrase "Once upon a time, once upon a time", which means half true and half false, is one of the most common

features of Uzbek folk tales. (It also has forms such as "As long as it doesn't exist", "As long as it doesn't exist", "As long as it doesn't exist", "As long as it exists, as long as it doesn't exist", but it's all the same. 235 of the tales we have seen, that is, 49 per cent of the works we have examined, begin with the assertion that a particular event first occurs and then vice versa. This is the case in the world scientific community  $E_2E_2^{\vee}$  defined by the scheme. That is,  $E_2$  states that the incident actually took place,  $E_2^{\vee}$  denies this. The phrase "hungry and full" that comes along with this not only provides melody, but also reinforces the meaning. But only in 64 fairy tales these two phrases came side by side. In the remaining 171 cases (in fairy tales such as "Guliqahqah", "Everyone does it for himself", "Conscientious young man", "The greatest oppression", "Intelligent girl", "Oyjamol", "The lucky shepherd", "Diamond hero" ) "Yes" and "no" are used alone. Showing the time when fairy tales took place is also one of the unique styles of Uzbek narrators. As a result of our observations, we have witnessed the timing of events in 308 fairy tales. That's 64 percent of the tales we've seen. "In ancient times", "In very ancient times", "In ancient times", "In the past", "In one of the past", "In distant times", "In the past", "In the time of times", "In the time of a tyrant king", "In the time of Odilshah", "In the time of nomadism", "At one time", "During the reign of the king of Bukhara", "In ancient times", "Once upon a time", "A few hundred centuries ago", "Many years ago" a certain time in the form of "one day", "one cold day", "one night", "one day", as a rule, is determined by  $T_1$ . Among them, the compound "In ancient times" was used more often - 127 times. For example, "Bear Wrestler", "Snake King", "The Fate of Caesar", "Magician Young Man", "There is no end to the truth", "Golden Fish", "Bahrom and Sherzod", "Malikai Birmisqol", "Frog Wrestler" in a number of fairy tales time is defined in this way. In the past, he took part in 79 fairy tales (such as "The Magic Lamp", "The Wise Shepherd", "The Burning Old Man", "Golden Apple", "Snake"). Setting the time as "one of the days" was made in 9 fairy tales (such as "A worthy work", "The nature of the profession", "The king and the minister", "Generous and greedy"). "In the time of nomadic", "In the time of a tyrant king", "In the time of Odilshah" ("Buried gold"), "In old times", "During the reign of the king of Bukhara" ("Give me my tongue!") And "On a cold day" ("Two sages") are not found in more than one fairy tale.

At this point, it became clear that Uzbek speakers did not use the method of preparing the audience in advance to hear the extraordinary events. For this reason, you do not see the cases denoted by the element  $T_2$  in the initial formulas of Uzbek folk tales. It should be noted that in the tales of other nations, especially the Romanian people, clichés were used, such as "Once upon a time there was an unprecedented catastrophe," "One day something happened in a rich country that never happened."

Unlike fairy tales of other nations, in Uzbek folk tales the place of events is not limited to general descriptions such as "one country", "one city", but in our fairy tales the names of specific places are given. In particular, in the 92 fairy tales we saw, 106 elements of space were identified, 57 of which were identified by specific toponyms. In particular, in the fairy tales "Prince Salmon", "Prince Assad", "The old man does not know what he knows" Khorezm, in the fairy tales "Yamakchin's daughter and podshovachcha" and in the fairy tales "Khurshid and Laylo" Egypt, "Gulboy", "Boy and novcha", "Rich with the judge" In the fairy tales of Zomin, "Nurilla boyvachcha" and "Chinnioy and Bakhtiyor" in the fairy tales of Samarkand, "Erkajon" "Kimyogar" "Slander" "Arab laqqi" "in Bukhara", "Mahmud yamoqchi", Balkh in the fairy tales "Mislabu", Uzgen in the fairy tales "Tokliboy", "Servant with Karimboy", Khiva in the fairy

tales "Eralihon and the Three Thieves", "Smart Girl", Turkestan in the fairy tale "Hazratqul", Margilan in the fairy tale "State with Wisdom", "Musofirbek" Urgench in the fairy tale, Kokand in the fairy tale "Jonon piyola", Fergana in the fairy tale "Bektemir batir", Kattakurgan in the fairy tale "Davlat", Oktash in the fairy tale "Bunyod Polvon", Baghdad in the fairy tale "Sirli tush", Boysun in the fairy tale "Ota ulug, otadan mehmon ulug" names are given.

In addition, the country of Damascus in the fairy tale "The Black Fairy", the Turkmen country in the fairy tale "Momir and Samir", China in the fairy tale "Hasan and Husan", Greece and Iran in the fairy tale "Alexander and Dorop", Sumbul in the fairy tale "Devkampir", "The Qibla of the Amudarya in the fairy tale "Shomurod the Coward", a beautiful country on the river Jayhun in the fairy tale "Pahlavon Rustam", Zabilistan in the fairy tale "Rustam", a country called Sarazm in Zarafshan in the fairy tale "The Giant in Khumcha", a city called Kayon in the fairy tale "Gavhar", Masturakhon and in the tale of the Enemy, no matter how big or small, symbolic names such as the land of Yasar can be found.

It is noteworthy that the events of the fairy tale "Science is preferred" take place "far from Bukhara, in the foothills of the Urgench desert, in a village called Qalai Mirishkor." The story of Garang begins with the statement that "on the Kokand side, between Yangikishlak and Tashkent guzar, there is a place called Tajik village." The fairy tale "Five girl" tells the story of people living in "Kallabozor mahalla in one of the Eastern countries".

It should be noted that in 11 fairy tales ("Fish seller Ahmad", "Daughter of the rich man with Alexander", "Knowledge is preferred", "Wise groom", "Farmer, judge and prudent woman", "Heritage", "Jorahon", "Curved and Straight", "Holmirzajon") events begin in a village".

"Pufakvoy", "Gulomvachcha", "Sherzod and Gulshod", "Nigini king moron", "The merchant's son" tales tell the story of a city".

The phrase "One Country" is based on 7 fairy tales ("Magic Lamp", "Black Difficult Horse", "Shepherd and Princess", "Merchant's Guess", "Tongue sharper", "Rustamzod and Sherzod", "Thief, if he laughs - a flower", if he cries - stop").

Given these circumstances, we have found it necessary to denote common names with  $S_1$ , and definite toponyms with  $S_2$ , which give the meaning of a place.

During our observation, we witnessed several rare but unique cases. In particular, at the beginning of the fairy tale "Hole" a formula in the form of  $T_1E_1$  was used twice. That is, first it is said, "In the time of an oppressive king, mothers-in-law and daughters-in-law were dogs and cats," and then it is said, "An old woman lived with her son, daughter-in-law, and grandchildren at that time."

Tales "Alvasti" and "The Story of Andijan" are told in the language of the protagonist. In particular, in "Noshud bola" the protagonist begins his story with the words "I was orphaned and stayed in my grandmother's arms." That is, it uses only the  $E_2$  element to access events directly. The protagonist of "Alvasti" also shows the time of the story: "On the day of the arrival of the swallows in the spring, I led the ox out into the field and took seven steps." Hence, the scheme of the beginning of this tale consists of elements  $T_1$  and  $E_2$ .

"The story of Andijan" is "I am from Andijan. When I was seventeen, my father gave me the initial formula in the form of  $E_1T_1E_2$ :"

In addition, there are places in our fairy tales that do not cover the elements we have. For example, the introductory part of the fairy tale "The earth is hard, the sky is far" is completely different, unlike the rest of the fairy tales. In particular, it reads: "When a person grows old, his waist is weak and his knees are tired. No one will be able to come to you. When you walk, you tremble, and when you sit, you can't stand. Then you will have the only helper stick. He is your helper, your support, and your companion. That is why our next story is about the nature of the staff." Unfortunately, it is still unclear to us what elements define the scheme of such a start.

## METHODS RESULTS

So, the general statistics of simple formulas, which are directly related to the plot of the work in the fairy tales we have considered, are as follows: There are 38 beginnings (E1) indicating the presence of a hero only; Beginnings directly involved in the description of events (E2) 29; Beginnings (T<sub>1</sub>E<sub>1</sub>) 68, indicating the presence of a hero at a given time; There are 26 beginnings (T<sub>1</sub>E<sub>2</sub>) indicating that an event has occurred at a given time; 5 beginnings (T<sub>1</sub>S<sub>1</sub>E<sub>1</sub>) denoting the presence of a hero in an abstract space at a given time;

There are 13 beginnings ( $T_1S_2E_1$ ) denoting the presence of a hero in a particular space at a given time;

Beginnings (S<sub>2</sub>E<sub>1</sub>) 5 indicate the presence of a hero in a specific space.

It was also found that 233 tales used beginnings that had nothing to do with the plot of the work. In particular, the following phrases are used in the beginning of Uzbek folk tales, which are a bright example of the art of saj:

"It's a fairy tale, a goat's belly, a pheasant is red, its tail is long, it's riding on blue ice, its mustache is broken, it's a goose trumpet player, it's a duck trumpet player, it's a black crow, it's a black crow, it's a sparrow, it's a sparrow, it's a crow. the wolf was the butcher, the fox was the scapegoat, the pig was the butcher, and the frog was the debtor. I have a husband of tomorrow, a husband of seven days, a husband of seven days, a wolf with a short tail."

The scheme of this cliché is as follows:

[illegible]

As can be seen, we have identified the unrealistic states in these clichés with the element  $E_2^{\hat{y}}$ , just like the "no" in "whether or not". Needless to say, these phrases do not occur in any fairy tale in their entirety. But at the beginning of 13 tales ("Peacock with a fox", "Khojamurod", "Hero", "Hazratqul", "Sniper with a wolf", "Susambil", "Sahibjon and Ahmadjon", "Crow" with a lamb", "Forty lies in three lies", "Boy", "Five girls") are recorded with minor changes.

We have tried to determine the place of formulas in fairy tales divided into classifications. The formulas of magic tales are a little more complicated than those of other types of tales. The collection "Volcano", published in 1986, contains only magical tales. In particular, the fairy tale "Gulboy" from the collection  $E_2E_2^{\check{v}}E_2E_2^{\check{v}} + T_1S_2E_1$  in the form of "giant in a bowl"  $E_2E_2^{\check{v}}E_2E_2 + T_1S_2S_2E_1$  in appearance, the fairy tale "Mother Tarasha"  $E_2E_2^{\check{v}}E_2E_2 + S_1T_1S_1E_1$  in the form of "Fairy Tale of the Giant"  $E_2E_2^{\check{v}}E_2E_2 + T_1S_2E_1$  in appearance, the tale of the "Wise Guide."

$E_2E_2^{\vee}E_2E_2 + E_2E_2 + T_1S_1E_1$  in appearance, the tale of the "Mysterious Glass"  $E_2E_2^{\vee} + T_1E_1E_1$  formulas were used.

Similar formulas can be found in many fairy tales, such as "Good intentions are a half-state", "Three saints", "Patchmaker's daughter and the king" of the collection "Oyjamol" [2], published under the heading "Life Tales". The same can be said of fairy tales about animals. This means that Uzbek folklore does not have specific formulas that are characteristic of magical tales. But single-element formulas are more common in household tales.

## CONCLUSION

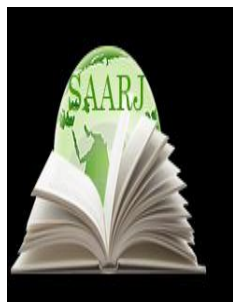
Of course, we are far from saying that our research covers all the tales of the Uzbek people. There is no doubt that in the Folklore Archive of the Academy of Sciences there are tales which have not yet been published, and among the people which have not yet been written. However, we can say with confidence that these elements are also involved in the beginnings of almost all fairy tales. The scope of their application is also largely within the framework of these formulas.

In conclusion, the most important function of the initial formulas in Uzbek folk tales is to prepare the audience for listening to fairy tales, to describe the time and place of fairy tales. Introducing the protagonists and introducing the narrative is a secondary function of these formulas.

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## TRADITIONAL FEATURES OF THE POEM "HUSN-U DIL" (BEAUTY AND HEARTS)

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### ABSTRACT

*The poem "Husn-u Dil" (Beauty and Heart) by Khorezm poet Muhammad Niyaz Nishati was created in a new direction, in contrast to the poems based on a single subject, similar to Navoi's "Khamasa" series of poems. Therefore, this article demonstrates these features according to the epic "Husn-u Dil" (Beauty and Heart).*

**KEYWORDS:** "Husn-U Dil", Traditional Subject, Comparative Studies, "Khamasa", Mysticism, Munajat, Story.

### INTRODUCTION

The growth of a comparative approach to literary events at certain stages of world literature history is associated with a desire to explore the content of literary-aesthetic thinking and relationships. Today, many educational institutions and research centers around the world are conducting research on literary and intercultural relations. In particular, in modern literature, more and more attention is paid to interactive research, because in order for a writer or work of art to be recognized worldwide, it needs to be approached in the context of cultural dialogue and globalization. The main points on which comparativeism is based in this process are the literary tradition and the phenomena of creative influence [3. 1-p.]

### Main part

Many works in the literature of the people of the East are based on such traditions. One such work, the poem "Husn-u Dil", has been interpreted differently among different people. It is not known in which folklore it originated and when it originated, but like all popular subjects, it was developed in the written literature of different people in the East and added to the treasury of their cultural and literary richness [5. 16-p.] Muhammad Niyaz Nishati's poem "Husn-u Dil" is

based on such literary traditions. But Nishati's poem "Husn-u Dil" is one of the more complex works of mysticism than any other epic.

Like many poets, Nishati was inspired by the works of his predecessors and created his own works. In particular, the unique features of the works of the great poet Mir Alisher Navai have left an indelible mark on the heart of Nishati. The poet considered Navai as a pir. Inspired by his works, he began to write the poem "Husn-u Dil". The poet wrote the poem "Husn-u Dil" in a similar way to the poems "Khamsa". In the play, the four poets who lived before him: Nezami, Dehlavi, Jami and Navai, paid respect to the "Khamsa" and tried to be worthy of them:

*Ulki erur nazm eli sardaftari [9. 15<sup>a</sup>-p.],*

*Ahli suxan afsarining gavhari.*

*To'rt kishi bordurur, onlar ayon,*

*Har biri hayroni erur, bahr-u kon.*

*So'z tanida bordur anosir bular,*

*Kimki so'z oytur ango nosir bular.*

*Ul birisin Shayxi Nizomiy degil,*

*Mamlakat-u mulki nizomi degil.*

*Bu biridur Xisravi olijanob,*

*Torami nazm uzra munir oftob.*

*Ul birisi hazrati Jomiy erur,*

*Dahr elining pok kalomi erur.*

*Yona biri bulbuli dostonsaro,*

*Ya'ni Navoiy erur ul xushnavo.*

Among the above poets, Nishati had a high respect for Navai. The poet compares Navai to the moon in seven climates and praises him as the king among the seven poets:

*O'zga erur donish-u farhang anga,*

*Yeti falakdur eti avrang anga.*

*Yeti aqolim uzadur moh ul,*

*Yeti qalam aqlig'adur shox ul.*

Nishati's poem "Husn-u Dil" contains the collection "Khamsa". It is written in the same way as the poem "Hayrat ul-abror", and the first chapter of the epic is similar to the text in the poem "Hayrat ul-abror", as well as the definition of the word and the character of the pen.:

*Bismillahir rohmanir rahim,*

*Nakhati izhori riyozu na'im.*

*Ziynat aro sarvi gulistoni noz,*

*Zebi chaman zebishi bo'stoni noz...*

*"Bo' si baqo Qofida sobit qidam,*

*Toji sari borchu hudus-u qidam.*

*Bo'ldi hidoyat yuzining zevari,*

*Hayli balog'at boshining afsari...*

Its plot is reminiscent of the poem "Farhod and Shirin", and the image of prayers, chapters and letters is reminiscent of "Layli and Majnun". The stories of "Chang", "Daf", "Nay", and "Nagma" in "Husn-u Dil" are reminiscent of the legend of the strangers in "Sabayi Sayyor". As in the poem of Navai, in the poem of Nishati Chang, Nai, Daf and Nagma are depicted as strangers and tell their stories in the presence of the king. Moreover, Nishati used these stereotypes for the epistemological content of the work, primarily for educational and moral purposes.

In addition, the work is based on mystical interpretations. In other words, the subject of the work is a combination of external and internal meanings. The reader realizes that a poem has two different meanings. For example, Fuad's friend Nazar Abi is said to have set out in search of water and to have encountered various difficulties along the way:

*Bo'yla berur bahr ila kondin xabar,*

*Hosil etib fotiha ketdi Nazar...*

*Goh gulistonaro aylab guzor,*

*Goh makon erdi anga xor-xor.*

*Gah edi maskan anga ko'hi balo,*

*Gah edi ma'man anga dashti fano.*

*G'urbataro gah to'qub ashki niyoz,*

*Goh yug'urur erdi nashibu faroz.*

*Har nafasi boshqa ajoyib ko'rub,*

*Har damida o'zga g'aroyib ko'rub.*

*Munqalib erdi bori ahvol anga,*

*Mushkil edi mushkil uza hol anga.*

In the teachings of mysticism, there are several ways to reach the sect, enlightenment, and truth. This is not a simple path, it is a path to perfection. Perfection is achieved through love. The same thing is meant in the epic. In the epic, Fuad's (Love, Heart) love for Husn (Beauty) takes on an apparent meaning. Inwardly, as Navai puts it, "love is special" (It is to put a pure eye on a pure face with a pure look, and to move a pure heart with a pure face, and to enjoy the true beauty of the beloved lover with this pure means of mockery) [2. 37-p.]. It is the manifestation of Love in the Heart. The names given to the images, buildings and places of the work are also stamped with symbolism. This is the peculiarity of the epic "Husn-u Dil" (Beauty and Heart). The purpose of figurative love is to show it through real-life material; the joys and sorrows, the

sorrows and joys, the struggles and dramas of the living are presented in images, in the process of depicting events, as a result of which the adventure of the Sufi uprising is embodied in the love story of a wide range of readers. This can be called the artistic interpretation of the philosophical and mystical meaning through the material of life. After all, life itself, with all its complexity and contradictions, is the interpretation of the science of God, its manifestation in images. Therefore, whether the poet is figurative or direct, he is an artistic interpreter of the enlightenment of the great God.

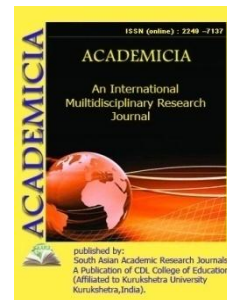
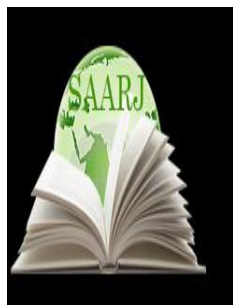
## CONCLUSION

In short, although Nishati's poem "Husn-u Dil" (Beauty and Heart) is based on a traditional plot, it is born on the level of a completely different, original work, ideologically and aesthetically intended.

A comparative study of the epics of Navoi and Nishati can bring new scientific and theoretical achievements to our literature.

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## ELECTROLYTES FOR DC ELECTROCHEMICAL POLISHING

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### ABSTRACT

*The article describes the characteristics of electrolytes for DC electrochemical polishing, their types, advantages and disadvantages, principles of operation, types of application and use. In addition, the works of scientists in this field, their conclusions and recommendations are given.*

**KEYWORDS:** *Electrochemistry, Hypotheses, ECP - Electrochemical Polishing, Metals, Anodes, Electrolytes, Anode Rods, Surface Macro And Micro Relief, Surface Melting, Microelectrochemical Degradation, Surfactants, Chloric And Phosphoric Acids.*

### INTRODUCTION

Although a number of electrolytes have been proposed by scientists for the ECP of carbon and stainless steels, only some of them are currently used in practice. However, those used do not meet modern requirements, require decontamination, low gloss and workability, and are difficult to use. DC ECP solutions used in industry are mainly divided into two groups - chlorine and phosphoric acid-based electrolytes.

Acetic acid or acetic anhydride is added to the electrolytes recommended for steel ECP. In hydrochloric acid electrolytes [1], in addition to carbon and alloy steels: aluminum and its alloys, zinc, lead, tin, beryllium, titanium can also be polished. The universality and the level of quality polishing of the metal surface are the main reasons for the widespread use of hydrochloric acid electrolytes in practice. However, such electrolytes are not used in industry [2] because of their high fire hazard. Chloric acid baths are used in some industrial plants and research laboratories abroad.

The fire hazard of hydrochloric acid electrolytes is related to the exothermic decomposition of the acid. An increase in the temperature of the solution leads to the dehydration of hydrochloric acid, while the concentrated acid decomposes easily and oxidizes the organic matter in contact with it.

In addition to chloric acid, the literature also recommends hydrochloric acid electrolytes with the addition of ethyl alcohol, methyl alcohol, glycerin and some organic compounds [2]. They are not recommended for industrial use as they are not superior to other simpler and more technologically advanced electrolytes.

The main component of most electrolytes is phosphoric acid, which is widely used in industry in the ECP of steels. Such electrolytes are easy to prepare and use.

Phosphoric acid-based electrolytes include phosphoric acid, phosphoric sulfuric acid without additives, and additional electrolytes consisting of various substances that improve the electrochemical polishing of the steel surface. As additives, some inorganic anions and their compositions containing various surfactant organic substances, often containing three or more components, are recommended.

In practice, electrolytes made from a mixture of phosphoric and sulfuric acids are widely used in domestic and foreign enterprises [2,3,4].

Scientists [2] studied the effect of the ratios of  $\text{H}_3\text{PO}_4$ :  $\text{H}_2\text{SO}_4$ :  $\text{H}_2\text{O}$  on the basic properties of electrochemical polishing of the surface. The results of the experiments showed that the relative smoothness and the best gloss were obtained in the proportions  $\text{H}_3\text{PO}_4$ :  $\text{H}_2\text{SO}_4$  = 50: 50 (% by mass). It is shown here that an increase in the amount of water reduces the smoothness and gloss of the surface and at the same time increases the erosion of the metal.

In a mixture of phosphoric and sulfuric acids [5,6] it is written that the steel has a good luster of chromium-nickel (types 18-8) and polychromic types.

In the mathematical planning method of some experiments [7], the effect of quantities in the ratio  $\text{H}_3\text{PO}_4$ :  $\text{H}_2\text{SO}_4$ :  $\text{H}_2\text{O}$  on the characteristics of the polishing properties of the steel 15 surface was studied. The authors consider that the ratio of phosphoric and sulfuric acids to steel 15% by volume - 70: 30 is convenient. However, the surface roughness is reduced by 30% and the gloss (light-reflecting property) is only 40-50%.

That is, the use of phosphoric sulfuric acid electrolytes for ECP does not always lead to a high quality surface finish. While the application of these electrolytes gives good results in chromium-nickel steels of type 18-8 and some carbon steels, polishing does not occur in carbon alloy steels.

Therefore, experts recommend adding inorganic and organic additives to the electrolyte when polishing carbon and alloy steels. In order to obtain luster in these steels, it is recommended to conduct them in ECP in an electrolyte containing hexavalent chromium ions.

The addition of 0.5% chromic anhydride to phosphoric acid completely stops surface erosion [8], while the addition of 3-6%  $\text{CrO}_3$  causes very little surface erosion and high surface reflectivity.

According to some scientists [4,8,9,10], the surface of reinforced iron, carbon and low-alloy steels has the following composition (% by mass):  $\text{H}_3\text{PO}_4$  - 74 - 80,  $\text{CrO}_3$  - 10-13,  $\text{H}_2\text{O}$  - 9-12 good quality is achieved when done.

Good quality ECP of the surface of carbon and stainless steel products is achieved by adding 5-20% chromic anhydride to phosphoric acid and phosphoric sulfuric acid electrolytes and leads to the widespread use of such electrolytes [2,5,9,11,12].

Analysis of chromium anhydride electrolytes revealed that when carbon, low-alloy and stainless steels were injected, the component quantities, the main parameters of the process, kept the current density (0.1 - 2.5 A /  $\text{cm}^2$ ) and temperature (40-90 °C) in a wide range. as long as it is possible to do so.

These electrolytes are distinguished by their versatility, rapid action and wide dispersion properties.

All authors attribute the quality output of the steel surface to the passivation of the surface when chromic anhydride is applied in the ECP.

During the ECP process, the amount of components in the electrolyte changes and the anode melting products accumulate. Phosphorus sulfate causes the complete breakdown of chromic acid electrolytes due to the accumulation of iron ( $\text{Fe}_2\text{O}_3$  to 3.7-4.4%) and chromium ( $\text{Cr}_2\text{O}_3$  to 2.4-2.8%) in its composition [13].

The change in the viscosity of the electrolyte is a factor in determining its luster [14]. Electrolyte adjustment consists of oxidizing trivalent chromium to hexavalent and adding water and acid to maintain the density of the solution at the desired level based on chemical analysis [13,15,16].

However, the large-scale use of chromium anhydride electrolytes requires the construction of expensive equipment to recover and dispose of the waste solution. In addition, chromium anhydride electrolytes are highly toxic, and industrial-scale neutralization and decontamination of wastewater requires sophisticated equipment and chemical reagents. Such deficiencies of chromohydrate electrolytes make it difficult for researchers to find solutions that can replace them.

Therefore, in recent years [17,18,19,20,21], new electrolytes are being discovered, with the addition of organic matter as various additives to phosphoric acid. At present, the main factor in finding new methods is the protection of the environment and the improvement of working conditions.

In addition to phosphoric acid-based electrolytes are used polyhydric alcohols, carboxylic acids and their esters, pyridine, quinoline, aromatic and heterocyclic amines and their derivatives, mixtures of these substances and compositions of organic surfactants with inorganic anions.

Scientists [12,22] have proposed an electrolyte with the following composition in the ECP of different grades of steel, volume%:  $\text{H}_3\text{PO}_4$  - 37, glycerin -56,  $\text{H}_2\text{O}$  - 7. However, the current density in the ECP is in the small range ( $0.8\text{--}1\text{ A / cm}^2$ ). works, the electrolyte temperature is high ( $120^\circ\text{C}$ ), the voltage in the bath is very high 20 V. During the ECP process, strong foaming is observed, the process requires cooling. In addition, dotted defects appear on the polished surface, the electrolyte has low workability.

The addition of ethylene glycol, gluconic and lactic acids, monoethyl ether and picolines to the phosphoric acid electrolyte has been shown in ECP of metallography [23,24].

For the ECP of stainless steels in phosphoric acid electrolyte, the use of polyhydric alcohols [23], amides of ethylene glycol and nicotinic acid, aliphatic monocarboxylic acids and their esters [21] is proposed in foreign patents. For the same purpose, hydrolyzed esters of lactone or carbonic acid, citrate, lactate, tetrates or malate esters have been proposed for the electrolyte [20].

In the work of S.Ya. Grilixes [22], the effect of some organic compounds on the surface polishing of steel 20 and 10X18H9T has been extensively elucidated in experiments. The main composition of the electrolyte is as follows,% by mass:  $\text{H}_3\text{PO}_4$  -60,  $\text{H}_2\text{SO}_4$  - 20,  $\text{H}_2\text{O}$  - 20 and  $\text{H}_3\text{PO}_4$  -50,  $\text{H}_2\text{SO}_4$  - 50. Electrolysis was carried out at temperatures in the range of  $65\text{--}70^\circ\text{C}$ , current densities of  $0.15\text{--}0.75\text{ A / cm}^2$ . The amount of electricity passed through the sample was  $250\text{ A} \cdot \text{min} / \text{dm}^2$ . In addition, the following classes of substances were used: alcohols - (butyl alcohol, glycerin, mannitol), amines - (ethylene diamine, diethylamine, dibutylamine, polyethylene polyamine, hexamethylene tetraamine), amino alcohols - (mono-, di- and triethanolamine), acids ( - oil and schvel, aromatic - benzoic, oxyacids from oils - milk, wine and lemon, oxyacid from aromatic series - salicylic).

Of all the organic substances tested, the heterocyclic amine urotropin (hexamethylenetetramine) was the one that gave the best flattening and light-reflecting properties.

Given that corrosion processes can to some extent be a model of electrochemical polishing, a number of authors have used corrosion inhibitors in ECP.

Derivatives of pyridine, quinoline, aromatic and heterocyclic amines, complex compounds of natural compounds, compositions of organic surfactants with inorganic anions: KPI-1, in the ECP of carbon and low-alloy steels [5,25,26,27,28] PB-5, catapin A, I-1-A, I-1-B, I-1-V, urotropin, BA-6, BA-12, ChM, and b. used.

The use of caprolactam to improve the smoothing properties of phosphoric acid electrolytes [29] recommended the use of a 1: 1: 1 mixture of KI-1/15 /: urotropin, formalin, and polybenzylpyridinium chloride, an acid corrosion inhibitor, to increase surface gloss [29].

Good results were obtained when steel 20P [19,30,31] was administered by ECP in urotropin (0.5 and 4% by mass) with K 7 - relative flattening  $42\%>$  and luster 49%.

In order to reduce the technological parameters of ECP,% by mass:  $\text{H}_3\text{PO}_4$  - 60,  $\text{H}_2\text{SO}_4$  - 20, KCl - 0.9, I-I-V - 0.2; where the degree of luster on the surface of carbon steel is 60% and the relative flatness is 50%, the current density is maintained at  $= 0.5\text{--}0.6\text{ A / cm}^2$  and the temperature at  $t = 20\text{--}30^\circ\text{C}$ .

When austenite steel 12X18N9T was injected in the above electrolyte, the polishing effect was preferred over the absence of an inhibitor additive. It was found that the use of acid corrosion

inhibitors I-1-V, PB-5, BA-6, which are added to the electrolyte with phosphorus sulfuric acid, increases the corrosion resistance of the ECP steel surface by 15-20%. The absence of chromium ions in the solution has a positive effect on the performance of the bath, and the fact that the process is carried out at low current densities and low temperatures facilitates the operating conditions. The surface quality of the product is satisfactory.

## CONCLUSION

The disadvantage that prevents some electrolytes from being widely used in industry is their strong foaming. Therefore, these electrolytes can only be applied to small items of simple configuration if they are treated in large-volume baths. The use of silicone foam presses does not completely solve the problem, it only leads to an increase in the cost of the electrolyte.

In some cases, acid corrosion inhibitors are formed as an additional by-product in the production of chemicals. Therefore, their chemical composition is not always clear, and this occurs during the ECG process, leading to unstable results.

In electrolytes containing acidic corrosion inhibitors, the surfaces of 18-8 types of high-alloy single-phase stainless steels are mainly of high quality.

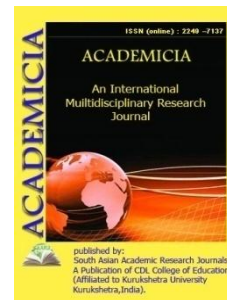
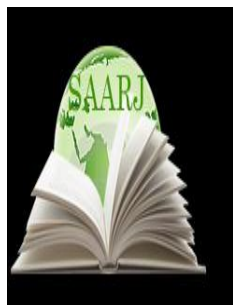
Steels of heterogeneous structure with carbon, low-alloy silicon, and manganese are polished with great difficulty, and the degree of luster makes them more opaque than their polished samples in the electrolyte containing hexavalent chromium ions.

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## LEVELS OF DEVELOPMENT OF PUPILS IN THE FINE ART AND TECHNOLOGY OF THE INDIVIDUAL APPROACH

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### ABSTRACT

*The article shows the improvement of methodological techniques of an individual approach to students at the lessons of fine art and its scientific value. Analyzed the level of student performance in the art classes, the activities of foreign and domestic scientists, teachers, artists. The implementation of the technology of an individual approach of students to the visual arts is based on the conditional grouping of students and the activation of the educational and creative activities of schoolchildren through lesson plans in the lessons of the visual arts, and the level of independent work in completing assignments.*

**KEYWORDS:** *Fine Art, Individual Approach, Individual Characteristics, Abilities, Psychological And Pedagogical Diagnostics, Creativity, Groups, Teachers, Children, Additional Tasks, Conversation, Groups, Students, Lesson Plans, Handouts.*

### I. INTRODUCTION

The essence of the state policy of the Republic of Uzbekistan, the priority of the systemic reform of education and spiritual and moral education of the younger generation. Improving intellectual and aesthetic development to a new level in quality. Improving the teaching methodology, phased implementation of the principles of individualization of the educational process.

Progressive educators at all times paid increased attention to the issue of individual approach. We find interesting discoveries and conclusions in the works of Y.A. Comenius, Ms. Russo, G.

Pestalozzi, R. Owen. The fact that the learning process needs to be built taking into account age and individual characteristics that need to be identified through systematic observations was the first to be discussed by Ya.A. Komensky. This problem was also developed in the teachings of progressive educators in Russia: K.D. Ushinsky, L.N. Tolstoy, E.N. Vodovozova, A.S. Makarenko, Ya.I. Kovalchuk [4, C.3]. An extensive technique of individual approach to children was developed by K.D. Ushinsky. Prominent teachers of Uzbekistan also dealt with some aspects of the problem in a differentiated approach at the lessons of fine art: R.Kh. Khasanov, R.R. Choriev, B.N. Oripov, Kh.Kh. Egamov [10, p.5].

## II. MAIN PART

The modern tendency to individualize instruction, to educate a free creative personality, to maximize the consideration of the age and individual characteristics of the child is becoming more widespread. But, despite the large number of publications, the question is very poorly disclosed: there are more declarative slogans about the need for a personalized approach to children and there is very little essence of this principle, and even more so the technology for implementing an individual approach: conditions, methods, techniques in the classes of fine art.

In art classes, each student has a chance of success. The situation of success in activities significant for the child is the most important psychological condition, a kind of fulcrum that allows you to change the whole system of the child's relationships, to awaken faith in yourself, in the success of your efforts.

Observations of the work of students show: the works of some children are characterized by a large number of errors, others do not cope with the task, others are diligent, and their work meets the goal set in the lesson. Some students fully express themselves in thematic drawings, others in decorative drawings, still others in sculpture, and fourth in drawing from nature. The materials that children prefer to work with are also varied. In creative development, the general and the special are manifested. Special in a person is called individual, and a person with pronounced features, individuality. An individual approach is to manage human development. This does not mean that we are adapting to an individual student, on the contrary, we are adapting the forms of pedagogical influence to individual characteristics in order to ensure the necessary level of personality development. The solution to this problem determines the goal of our scientific work: theoretically substantiate, methodically develop and experimentally verify the need for an individual approach to students in the fine arts.

## III. MATERIALS AND METODS

At different stages of the experimental work, the following research methods were used:

- Pedagogical observations, analysis of the products of the visual and creative activity of students in grades 5-6-7 (drawing on themes, illustration and decorative drawing);
- The study of individual-age differences of students through psychodiagnostic techniques [9, C.15] for the implementation of an individual approach in visual activity [3, C.320].

The product of artistic activity is valuable, first of all, by the originality of the artistic image, that is, by the individual characteristics of the goal to which he aspires in the process of his artistic activity.

The product of artistic activity is valuable, first of all, by the originality of the artistic image, that is, by the individual characteristics of the goal to which he aspires in the process of his artistic activity.

Depending on the individual characteristics of the students, the class can be divided into the following groups:

- **The first group** (weak) includes schoolchildren who have poor preparation for visual activity. Gross errors can be found in their works. The idea is often repeated in several students or often found in children of this age. Without verbal explanation, the figures are incomprehensible. This group also includes children with an undeveloped artistic taste and creative imagination;

- **The second group** (middle) includes students whose work does not have gross errors, but is inexpressive. The theme, plot, images are rarely repeated in other children. The tasks set by the teacher are not always carried out. This group includes children with poorly developed artistic taste, creative imagination;

- **The third group** (strong) consists of children with abilities, as well as some skills in visual activity. The works of children of this group are interesting compositionally and picturesquely. The tasks set by the teacher are completed. There is a noticeable desire to convey in the drawings the actions (movements) or feelings of the characters depicted. Children love to draw on free topics, show a rich imagination.

In the works of teachers [5, C.3], there are two directions of an individual approach to the studies of fine art:

- 1) The prevention and elimination of gaps in student performance;
- 2) The formation of individually distinctive abilities, an individual style of learning.

The main tasks are mandatory for all students, additional - for more capable, as well as for the weak in order to fill the knowledge gaps.

*The structure of classes on the methodology of teaching art can have three options [6, C.10]:*

**Option 1:**

The lesson begins with the presentation of new material for all students, then cards are given to the weak group. While observing the work, individual advice is given to students of medium and strong groups. Lesson ends with an analysis of student work.

**Option 2:**

After the topic of the task is announced, a task for independent work is offered to the strong and middle groups of students, individual work with a weak group is carried out. Lesson ends with an analysis of student work.

**Option 3:**

Pupils of a strong group immediately begin to complete the assignment, the topic of which they heard in the last lesson. Individuals with weak and medium groups are given individual work with the issuance of assignment cards. At the end of the lesson is an analysis of children's work.

#### IV. RESULT AND DISCUSSION

As the work of students in grades 5-6-7 of general education schools No. 9 and 2 cities of the Gulistan city of the Syrdarya region and rural schools No. 34 of the Zamin district of the Jizzakh region showed in the 2019-2020 academic year, some students quickly and well performed the set their tasks and work are expressive, Interesting others worked fast, but the drawings are inexpressive, with a lot of errors; still others could not cope with the assigned tasks; they made gross mistakes because they were disorganized and the teachers listened poorly; the fourth worked slowly, did not have time to finish the work, as they tried to do it as best as possible.

To find a general balance in the lessons, we recommended using [6, C.4] methods of working with children:

- a) Prepare task cards for students;
- b) Apply additional tasks after completion obligatory frontal tasks;
- c) Conduct interviews with students, taking into account their individual features.

The main tasks are mandatory for all students, additional - for the more gifted, as well as for the weak in order to fill the knowledge gaps. The structure of classes began with the presentation of new material, then task cards were issued for all students. Gifted students, based on their individual abilities, were offered more complex compositions. While observing the work, individual tips were given. At the end of the lesson, an analysis of the students' work was carried out.

Below we offer methodological handouts for an individual approach to students in the visual arts for grades 5-6-7.

##### Individual task cards.

**Theme: "Uzbek folk festive clothing." 5th grade.**

Materials: paper, cardboard, colored pencils, gouache, watercolor, brushes.

For students of the first group:

"Circle the Uzbek national headdress" duppy "according to the pattern and color with colored pencils."



**Figure 1. Uzbek folk festive clothing**

For students of the second group: "Draw Uzbek folk costumes, draw an inner contour with a pencil and paint with gouache on the model."

For students of the third group: "Using a card, draw and paint with watercolors and gouache on people in national costumes dancing the Uzbek folk dance. Stick the drawings on cardboard and make a panel out of them" (Fig. 1).

**Theme: "The art of design. Costume designs »7th grade.**

Materials: paper, cardboard, colored pencils, gouache, watercolor, brushes.



**Figure 2. Costume sketches**

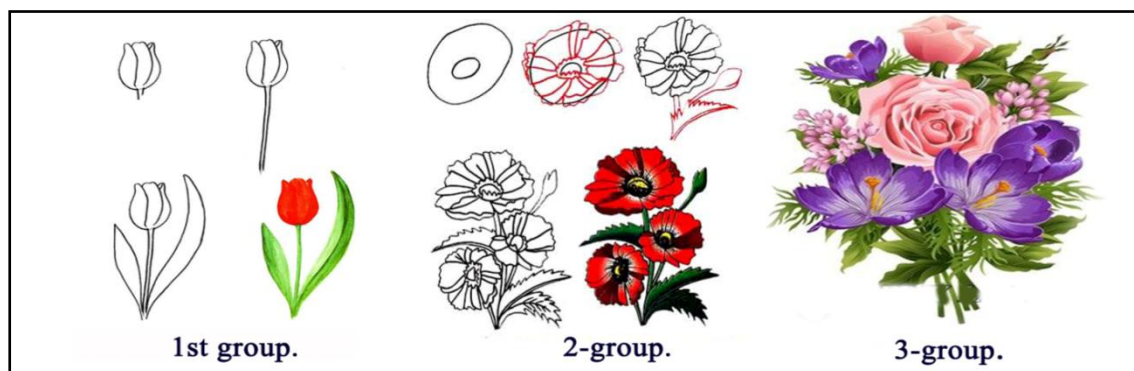
1. for students of the first group: "Circle the sketch of one of the suits according to the template and color with colored pencils"

2. For students of the second group: "Draw a sketch of one of the costumes and paint with watercolors"

3. For students of the third group: "Draw some sketches of a modern costume for a school play and for a summer walk in the park. Add your elements and color with gouache" (Fig. 2).

**Theme: "Still life in painting. We draw flowers" (5th grade).**

Materials: paper, watercolor, gouache, brushes.



**Figure 3. We draw flowers**

1. For students of group 1: "Draw a flower and paint" (Fig. 3)

2. For students of group 2, "Draw and color 2 flowers using warm colors"

For students of the 3rd group: "Create and draw a bouquet composition according to the presentation of spring flowers. Paint with gouache in warm colors **Subject: "Sculpture of a figure of a person (athlete) in motion"** (6th grade) Materials: plasticine, sticks, wire. 1. For students of the first group: "Blot out the figure of a standing person"

2. For students of the second group "Using a wire frame and plasticine, stick a figure of a person (athlete)"



**Figure 4. Sculpture of a human figure**

1. For students of the third group: "Using a wire, make a frame for the figure to mold two figures of a person (athlete) in motion (Fig. 6). Type plasticine on the frame (using the image from memory).

Also, when analyzing children's works, a significant error is revealed in the depiction of figures of people and animals, since the portrait genre is studied in the middle of the 5th grade according to the program, individual work should be done to prevent errors in depicting human figures. Such exercises can be given to students in grades 6-7. Materials: white paper, simple pencils (M, TM), ink, pen.

1. For the first group: "Connect" the spots so that you get the figure of a standing person"

2. For the second group: "Connect" the spots so that you get the figures of people in motion".

3. For the third group: "Draw two or three human figures in motion with schematic geometric figures"

#### **IV. CONCLUSION**

Methodological methods of an individual approach are not specific, they are general pedagogical. The creative task of the teacher of fine art is to select from the general arsenal, the means that are most effective in a particular situation, meet the individual characteristics of the student. In the implementation of the plan, the individual task cards proposed by us can be of great help. The competent use of methodological techniques of an individual approach to

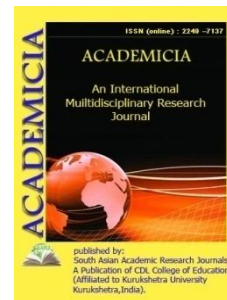
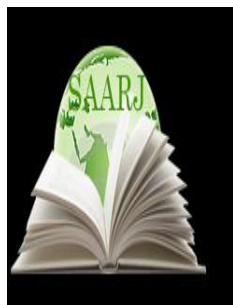
students in the classroom of fine art increases the effectiveness of the learning process, since all students, without exception, are under the scrutiny and sensitive attention of the teacher; based on the knowledge of the individual characteristics of students, the teacher can thus organize training, so that all his wards receive not only the minimum necessary baggage of knowledge, skills in the field of fine arts, but, in addition, maximize their creativity, their artistic abilities, reaching a certain degree of mastery; thanks to the individual approach to students in the art classes, the educational and creative activities of schoolchildren are activated, their degree of independence in work increases, interest in learning and the acquisition of new knowledge becomes more effective and persistent. Thus, after analyzing the experimental experience and the studied literature, we can conclude that all three groups of students actively participated in performing creative and thematic tasks. A survey of visual skills made it possible to ascertain the significant dynamics in improving the performance of visual activity through the application of individual approaches.

Therefore, the goal in the work is achieved, the tasks are implemented, the hypothesis is confirmed.

An individual approach has a positive effect on the formation of the personality of each child, provided that it is carried out in a certain sequence and system, as a continuous, clearly organized process.

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## PROBLEMS OF URBAN-TYPE SETTLEMENTS IN THE CENTRAL ASIAN REGION CASE STUDY: REPUBLIC OF UZBEKISTAN

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### ABSTRACT

*The article deals with problems, analysis and solutions for the urban-type settlements of Uzbekistan, which are subject to individual consideration. There are large economic costs ahead. The villages that changed their status to the urban-type settlement do not have infrastructure at all, and the data in the diagram show that the groups of “small population” (80%) with the “smallest population” (29%) are not subject to consideration at all, since these urban settlements do not justify neither economic, nor social decisions. When analyzing the data, it should be specifically determined and clearly indicated the requirements, the villages to be transferred to urban settlements. This decision will cut the economic costs for the Republic.*

**KEYWORDS:** *Rural Population, Transformation, Climate and Environmental Conditions, Urban-Type Settlement, Status.*

### INTRODUCTION:

The urgency of the chosen research is determined by the government program arising from Five Priority Areas of Uzbekistan's Development Strategy developed by the President of Uzbekistan Shavkat Mirziyoyev.

There are government regulations on the organization of urban-type settlements (UTS). 965 Uzbek rural villages were named to be subject to transformation into urban-type settlements. To date, the number of urban-type settlements under transformation is coming to 994.

The private enterprise development of these villages consists mainly of old residential and public buildings, many of them having no adequate infrastructure.

In this regard, the task of the rural community transformation into urban-type settlements primarily involves the reconstruction of their territories using modern urban recommendations, design standards and project development of master plans.

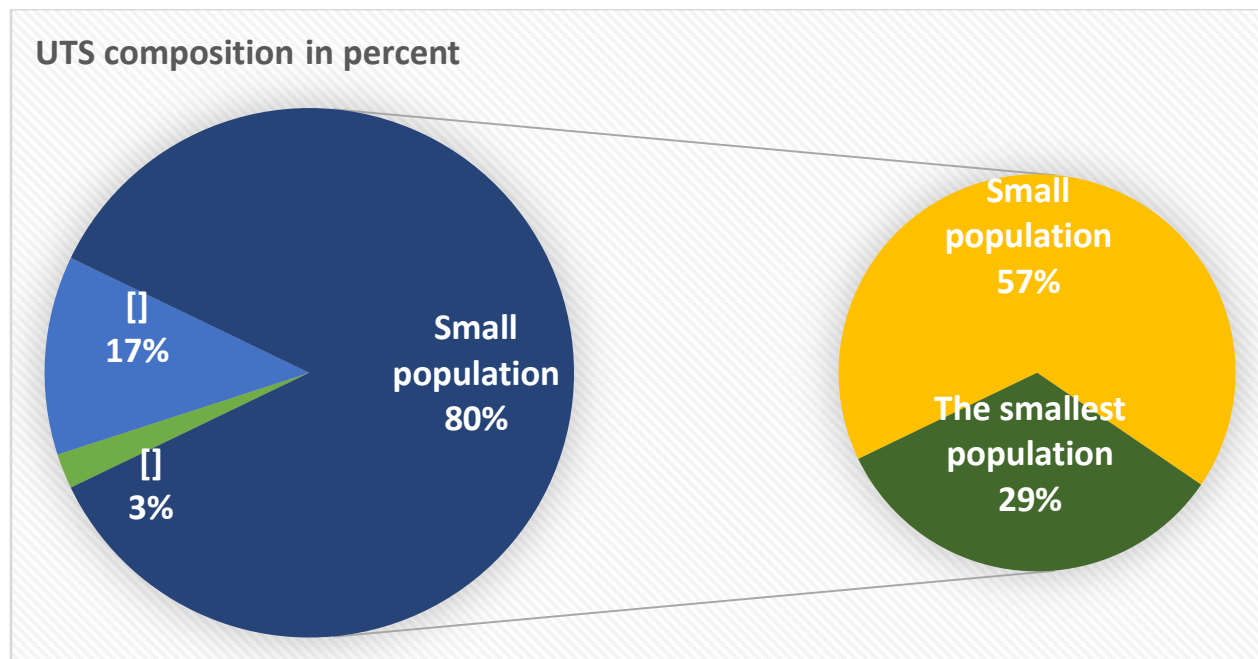
Master plans, in turn, should be developed taking into account minimum public expenditures for inevitable redevelopment and demolition of some existing facilities. At the same time, it is important that such approach to solving the problem should not affect comfortable living conditions for the populations of these villages.

**TABLE 1: CORRECTION OF URBAN-TYPE SETTLEMENTS IN THE REPUBLIC**

No.	Name Republic/ region	Number of urban-type settlements by groups			Total number of UTS
		Small up to 5,000.	Middle from 5,000 to 10,000	Large from 10,000 and more	
<b>1</b>	Republic of Karakalpakstan	11	-	-	<b>11</b>
<b>2</b>	Andijan region	50	27	1	<b>78</b>
<b>3</b>	Bukhara region	47	13	-	<b>60</b>
<b>4</b>	Jizzakh region	20	6	3	<b>34</b>
<b>5</b>	Kashkadarya region	90	14	4	<b>118</b>
<b>6</b>	Navoi region	30	-	-	<b>30</b>
<b>7</b>	Namangan region	55	27	17	<b>109</b>
<b>8</b>	Samarkand region	70	4	1	<b>76</b>
<b>9</b>	Surkhandarya region	93	12	2	<b>107</b>
<b>10</b>	Syrdarya region	10	5	1	<b>16</b>
<b>11</b>	Tashkent region	65	9	1	<b>79</b>
<b>12</b>	Ferghana region	161	27	3	<b>196</b>
<b>13</b>	Khorezm region	40	10	-	<b>50</b>
	<b>Total by groups</b>	<b>740</b>	<b>154</b>	<b>33</b>	<b>965</b>

**MAIN PART:**

What should an urban-type settlement like? The UTSs should have at least one of the main components of urban development: population of at least 3,000 (ShNK 03 \*), infrastructure, socio-economic and architectural and planning concepts. And what have the UTSs adopted by Resolution No. 68 on 13 March 2009. An inventory of rural settlements with a population of more than 2,000 people and with the availability of appropriate infrastructure was carried out. The study showed that in practice the situation was different. The settlements with population from 600 to 2000 people that have been transferred into status of urban settlements made up 29% or more of the total amount of UTSs (Table 1.).



The purpose of such unclear (possibly anarchy of time) transfer for these UTSs was one – “the investment”. To date, after 10 years, some villages have returned to their “village status”, most of the urban-type villages of the rural level in all respects.

**TABLE 2: GROUP OF VILLAGES TRANSFERRED INTO UTSS, ACCORDING TO RESOLUTION NO. 68, DATED 13 MARCH 2009**

UTS group		Number of inhabitants in UTSs	UTS Number
by groups	by number of population (thousand people)	thousand people%	
Large population		from 10,000 and more	

	from 5,000 up to 10,000		
middle population			
all population (SP)	from 600 to 5,000.		
SP (80%=100%)	100-5000		
- small population			
- smallest population	– 2000		
total:			

**TABLE 3.UTSS TRANSFORMED BEFORE THE INDEPENDENCE OF UZBEKISTAN**

TS groups		Number of inhabitants in UTSS
by groups (population)	number of inhabitants (thousand, people.	Thousand, people. %
large	from 10,000 and more	
middle	from 5,000 up to 10,000	

II	600 to 5,000.	
- small	0-5000	
- smallest	– 2000	
III:		

Tables Nos. 2 and 3 clearly show the difference in the UTS population. If the UTSs' large population before the independence was higher, then the villages with the smallest population gained the UTS only in exceptional cases. Resolution No. 68, adopted on 13 March 2009 shows completely different figures.

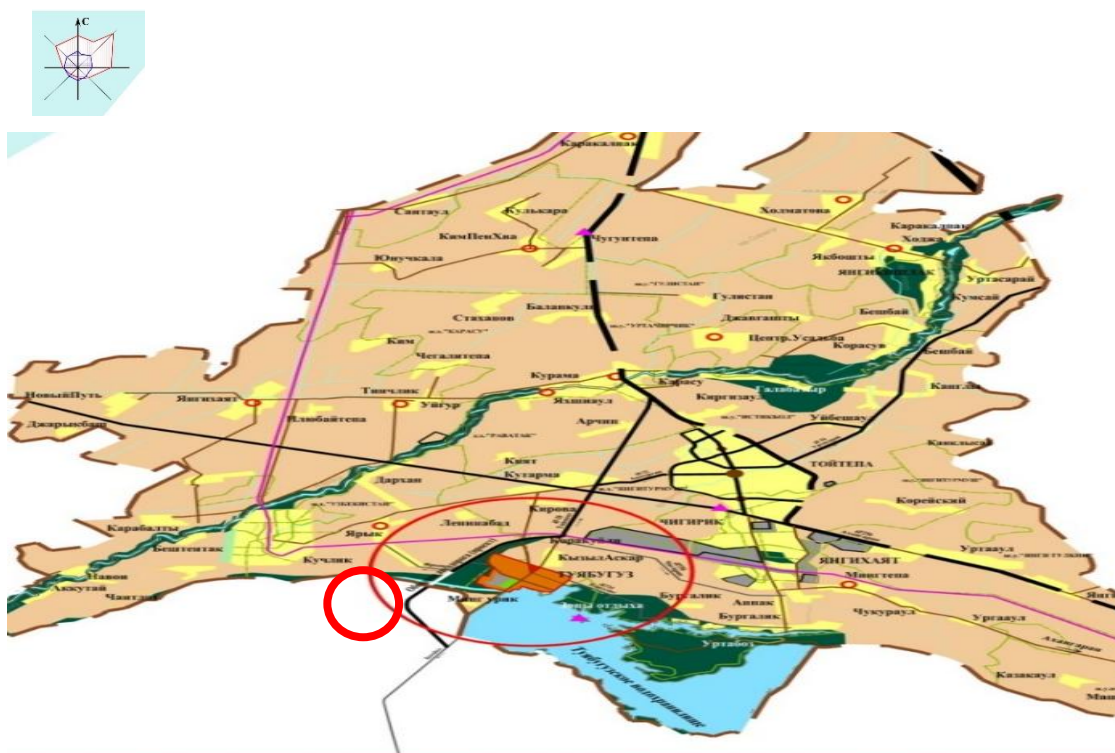
The first of the main problems is the lack of stable public service. Today, only 3% of the total number of urban-type settlements have an engineering and communal infrastructure, and those urban settlements are not covered by Resolution No. 68. There are large economic costs ahead. The villages that changed their status to the urban-type settlement do not have infrastructure at all, and the data in the diagram show that the groups of "small population" (80%) with the "smallest population" (29%) are not subject to consideration at all, since these urban settlements do justify neither economic, nor social decisions. When analyzing the data, it is necessary to specifically define and clearly indicate the requirements and groups of villages to be converted into urban-type settlements. This approach will reduce the economic costs and eliminate their waste.

The second major problem is the industry. The main components of the industry determine the correct location and areas of its development. Production must be fundamentally sustainable. UTS production should be systematized and directly related to villages near it. It is necessary to take into account the practice, which proved that the planning of only one production can ultimately lead to the depopulation - to a "dead city". An example of this is former Marjonbulak village in Jizzakh region, which was engaged in gold mining. When the production flourished, the village received a UTS status. Rapid population growth required the construction of mid-rise block houses (4 floors), which were planned and built up. But production stopped, and the city-forming population left the village. To date, this village (former a UTS) became deserted, turning into the "Dead City" – empty neighborhoods, empty houses, abandoned facilities are all to the bad of the economy. There are a lot of such examples in urban planning, not only in the Central Asian republics, but also abroad.

What are the solutions? To study the natural and climatic conditions, geographical location, architectural and planning concept of the urban-type settlements and with due regard to the population, to plan at least two fundamental production of different profiles, independent from each other.

The production planning layout should take into account savings and engineering communications system. Given the wind rose, a planning concept of 2 or more productions should ensure the transport infrastructure in place to transfer people in different directions at rush hour. It is also necessary to develop programs for family small businesses, so that at least 50% of UTSs may have their own home-based business with due regard that they are workers in production or servicing staff in the UTSs.

As an example, we can take Tuyabuguz UTS in Tashkent region. Tuyabuguz acquired the status of urban-type settlement in 1960. One of its productions is producing building material – bricks. It can also be offered to arrange a recreation area there. Since the UTS is located near a reservoir. This area can serve as a recreation area for mountaineering or downhill skiing in summer and winter. There, both professional athletes and just sports enthusiasts can relax.



**Key plan**





### **Project proposal**

This is an approximate design proposal for Tuyabuguz urban settlement. If for some reason the industry stops, for example, due to insufficient raw materials, outdated equipment, etc., then the production can be reconstructed or recultivated, while the socio-economic growth will not be suspended. The sports center of the recreation area will provide the urban-type settlement and the surrounding countryside with job.

### **MATERIALS AND METHODS:**

The research is based on a retrospective analysis and generalization of the results obtained, a survey-interview to identify the nature, a critical analysis and generalization of domestic experience on this issue, and the development of experimental design proposals.

The expected scientific novelty is as follows: by analyzing the task for all 3 groups of the population, to develop a solution to the problems, a model for urban settlements, a promising planning structure for urban settlements in Uzbekistan, a planning structure for engineering infrastructure and transport axis, community centers, production, and socio-economic solutions; to increase population productivity, reduce population migration, increase a social level of the population and save construction costs.

### **CONCLUSION:**

When analyzing the data, it should be specifically determined and clearly indicated the requirements, the villages to be transferred to urban settlements. This decision will cut the economic costs for the Republic.

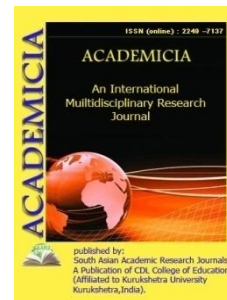
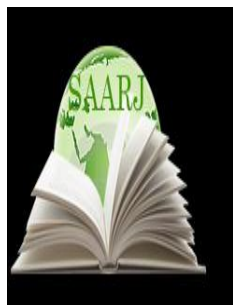
Thus, the correct solution and distribution for the development of urban settlements should help solve many social and urban problems.

The goal of scientific research is to raise a development level of rural areas with less construction costs, while transforming and creating improved, practical and convenient conditions for the community.

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## THE ROLE OF WATER SUPPLY SOURCES IN SHAPING THE LANDSCAPE OF HISTORICAL CITIES IN UZBEKISTAN

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### ABSTRACT

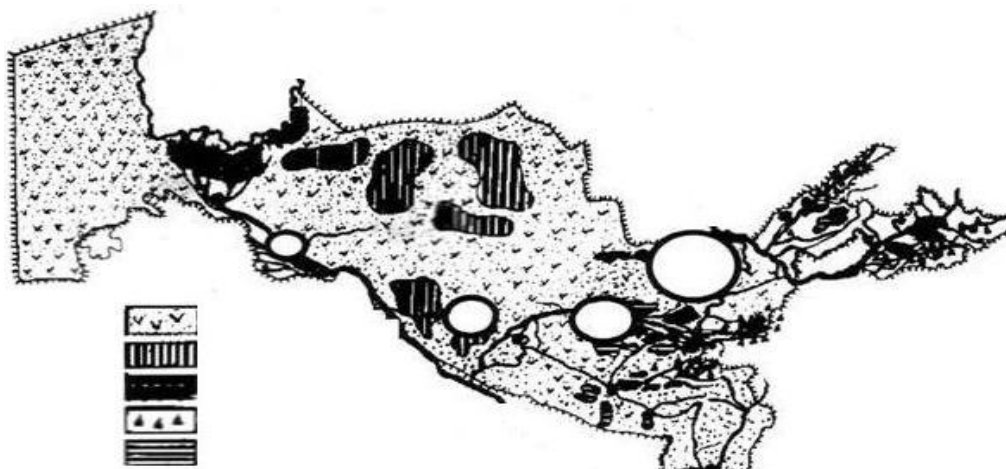
*The article considers the development and growth of the territory of ancient cities of Uzbekistan, taking into account the features of open water supply. The types of water sources and their influence on the formation of the landscape of historical cities in the ancient, medieval and colonial periods are highlighted. A predetermined hierarchy of additional smaller channels and ditches is described. The experience and principles of distribution of the water-green system that contributed to the formation of favorable sanitary, microclimatic, recreational and aesthetic conditions are revealed, as well as the connection of water and green spaces is justified.*

**KEYWORDS:** *The Landscape Of Historic Towns, Water System And Landscaping, Houz, Hiyobon, The System Of Irrigation, Urban Development, Mahalla, Uzbekistan's Ancient Cities.*

### INTRODUCTION

Emergence and development of any city is connected with topographical and landscape conditions of the area. All natural forms of a landscape - a relief, water, vegetation form the basis of formation of the city and along with socio-economic factors define features of its territorial and planning development. But development of a system of their gardening, in local climatic conditions, existence of a source of water supply was a primary condition of formation of the cities and.

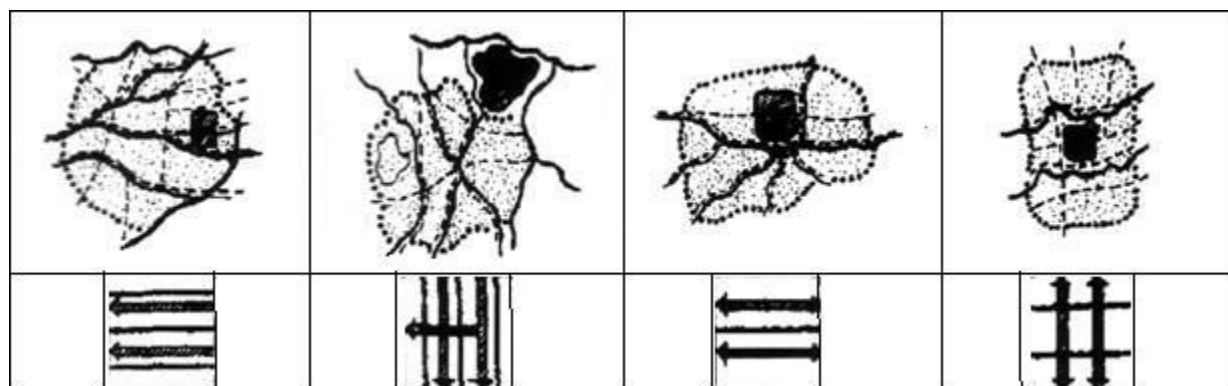
Owing to considerable proximity of the territory with - the North on the South and with Zapoda on the East, and specifics of climatic conditions the ancient centers of resettlement in the territory of Uzbekistan arose in oases of valleys of the large SyrDarya Rivers, Amu Darya, the valley of the Zerafshan River, etc. rivers which are formed in Pamiro-Altay mountain systems.(Fig.1).



**Fig. 1.** The scheme of placement of water resources and vegetation in the territory of Uzbekistan: 1 - herbs, bushes. 2 - a saxaul, 3 - the tugai woods, 4 - junipers, 5 - deciduous. O - the main historical cities of Uzbekistan. (4)

**MAIN PART.** In the historical past, when the cities of Uzbekistan did not have such a developed territorial and planning structure as now, the cities of Uzbekistan were based on rivers, near large rivers or on territories well supplied with water through artificial watercourses - ditches that depart or divert from the main source of water supply - a large river or channel [1].

For example, the ancient Tashkent – Shash developed to the North of Bossu ditch -taken from the Chirchik water system, ancient Samarkand (Afrasiab) developed on the right Bank of the Siab ditch-diverted from the Zerafshan water system, ancient Bukhara developed North of Shahrud – diverted from the Amudarya water system (Fig.2).



**Fig.2.** The influence of the hydro system of the area on the development and greening of cities in the ancient and medieval period: 1-Tashkent, 2-Samarkand, 3-Bukhara, 4-Khiva. (4)

A study of historical materials on ancient and medieval cities showed that in the past they were well watered, landscaped and arranged.

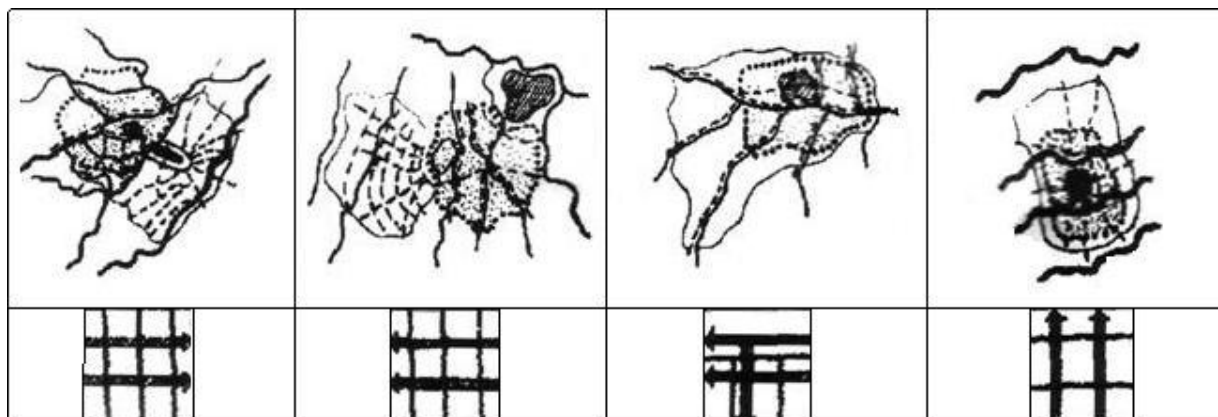
This is evidenced by the descriptions of Greek and Arab historians. For example, about early medieval Samarkand, with the settlement of Afrasiab, Quintus Kuntius Rufus wrote that under Alexander the great, in 329 BC, Marakanda, it was a well-fortified and well-organized city, and its people were courageous, noble and highly cultured. And the Arab geographer of the X

century Istakhri, who was amazed at the fertility of the Sogdian region, wrote: "...Sogd - I don't know a single place in it where, if you go up to something high, the eye would not fall on the green and pleasant place... There is a fortress in every city and village that glistens in the intervals of greenery, as if (green) clothing is made of green brocade, woven with the beds of water and decorated with spangles of castles. He Sogd is the most fertile of the countries of Allah, it has the best trees and fruits, in all its dwellings gardens, hauzes<sup>1</sup> and running water; it is rare when a street or house does not have a channel with running water" [2]. These materials indicate that the formation and development of vegetation, and especially the level of urban greening, was associated with the presence, volume, and location of water bodies.

The presence of watercourses was so important that interruptions in water supply or their destruction of water sources led to the termination of the life of settlements or their movement outside the developed territories. For example, the thorough destruction in 1220 by the troops of Genghis Khan, the main source of water supply for the settlement of Afrasiab-the lead channel of Dzhakardiz, caused the subsequent death of the city. The destruction of the channel was so tragic that the population, deprived of the only source of water supply, left the city forever. As Samarkand, the city was able to revive only in the XIII-XIV centuries, in the southern direction behind the walls of Afrasiab. Also, the once flourishing cities of ancient Khorezm – Khiva and Urgench-were revived on the destroyed ashes, as well as moved from the places of Foundation of Shakhriyabz, Termez, Tashkent, etc. [3].

With population growth and the need to develop new territories, most cities are completely or partially relocated to surrounding areas that are favorable for water supply. With the development of cities and the removal of peripheral territories from the main sources of water supply, the creation of channels diverted from the upper reaches of large rivers was conditioned. From the main channels (e.g. in Tashkent –ch.Bozsu, in Samarkand- ch.Dargom) was assigned a network of ditches distributed throughout the city depending on the natural terrain [4]. The distribution of water was usually followed by landscaping, and the more evenly distributed the ditches, the more evenly the network of green spaces was formed.

The shift of cities towards watercourses was also reflected in the formation of a network of main streets that formed along channels and large ditches. The influence of hydrography on the development of the planning structure of cities and the distribution of green spaces was reflected in the formation of the landscape appearance and the placement of recreational places [5]. For example, Samarkand XIII-XIV centuries developed on the streams of spring feeding Sangrisan, Navodon and Dzhakardiz withdrawn from Dargom irrigation system source of supply which was the river Zerafshan, Tashkent developed in the West, South-West and North-West ditches in the North, Anchor, Aktepe and others reserved of Bozsu irrigation system source of supply which was the Chirchik river. Bukhara developed in the southern, Western and Northern directions relative to Shahrud and its branches (Fig. 3).



**Fig.3.** Influence of the hydrographic system of the area on the development and greening of cities in the colonial period: 1-Tashkent, 2-Samarkand, 3-Bukhara, 4-Khiva [4].

The need for water supply to expanding urban areas predetermined the holding of additional smaller channels or ditches deep into the development, which may be why the layout of blocks whose streets were also laid along the main ditch networks did not have a clear planning structure. Close planning and spatial placement of green spaces and open water sources allowed creating cities-green oases, as can be seen from historical descriptions. For example, the historian Ibn Haukal wrote that "...in Samarkand, with a few exceptions, there is not a single street or estate where there is no running water, and only a few houses do not have a garden." Similar statements are also found when describing the medieval cities of Bukhara, Termez, Khojent, Shahrisabz, and the cities of the Ferghana valley.

## MATERIAL METHOD

After determining the historical features of water supply, watering and landscaping of ancient cities, it should be noted that the system of open water supply (channels, ditches, hauzes) was multifunctional and, above all, was utilitarian. The functions of water supply were closely intertwined with the functions of watering and irrigation of the territory. At the same time, it is important to note that the features of watering cities were very rational with regard to the distribution of water on the territory of the city.

The watering system had a consistent planning distribution on the territory: from large watercourses, where primary settlements were formed, to the developing territories of the city, second-order watercourses were diverted, and from them deeper into residential quarters, a smaller water network was carried out, passing through residential courtyards, where small reservoirs (hauzes) were arranged. In addition, in the centers of many neighborhoods, larger reservoirs were arranged that performed a complex of utilitarian, recreational, and sanitary functions. Such reservoirs played an important role:

- drinking and household water reservoirs;
- recreation and leisure centers;
- microclimatic foci;
- And places of aesthetic pleasure.

We can say that the organization of watering and landscaping of medieval cities consisted of several levels and was a rather complex system:

- large ditches passed through the Central parts of cities, they were arranged along the green alleys – hiyobones<sup>2</sup>;
- middle ditches passed through residential areas, through the centers of the mahalla and served as water sources for large hauzes, around which green mahalla centers were formed - areas of communication and recreation of the population;
- a small ditch network was diverted from medium-sized ditches and passed through residential courtyards, feeding water to gardens and sometimes small ponds, around which shady recreation areas were organized for family members.

## CONCLUSION

The combination of water and green spaces contributed to the uniform distribution of the city's water-greening system, which increased its microclimatic and sanitary impact on the urban environment, which, according to historians, turned into a Paradise of coolness, against the background of hot and dry weather conditions of the local climate. In addition, the rational uniform placement of the green space system on the territory served to evenly distribute the structure of recreational functions.

The historical heritage of the organization of water supply systems, watering and greening of cities, shows that in the local climate, open water sources played a crucial role in all life processes, including the formation of the urban landscape. The versatility of water, its utilitarian, irrigation, sanitation and aesthetic properties dictated the rational distribution of water sources in the city. The open water channels, ditches and hauzes, formed in accordance with the natural and planning structure of the city, defining not only the character of the landscape, but also the location of the recreational areas: – large channels and ditches were arranged green hiyobones – a kind of linear walking paths; ditches of medium size has been a source of education landscape for the organization of leisure and recreation for residents waved; small irrigation ditch network running through residential neighborhoods was a source of organization of landscape and recreational places in domestic spaces of households.

Despite the complexity of urban planning and functional planning problems of modern cities of Uzbekistan, the identified experience and principles of distribution of the water-green system on the territory of medieval cities contributed to the formation of favorable sanitary, microclimatic, recreational and aesthetic conditions, for the organization of landscape and recreational environment of medieval cities, can be considered very rational and vital for use at the present time.

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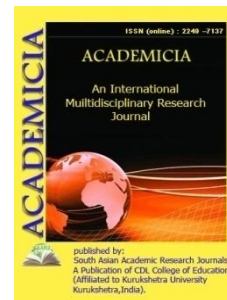
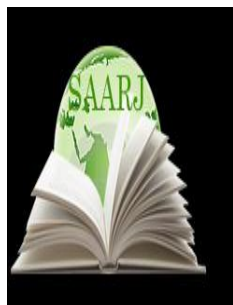
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## HAPPINESS AMONG HIGHER EDUCATION ACADEMCIANS: A DEMOGRAPHIC ANALYSIS

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### ABSTRACT

*Happiness motivates person for better performance which ultimately impacts its productivity and decides about the organization's growth rate. Over the years various organizations (Manufacturing, Services, FMCG, BPO, KPO etc.) have acknowledged the significance of happiness quotient and have started investing more through various measures which can make their people happy on the job. Resultant satisfaction and manpower retention rate in these organizations has risen to a great extent. Literature clearly states that happy and satisfied employees can spread happiness and generate repeat customers. Due to emerging work culture employees spend maximum time in the organizations, so it is becoming important to feel them happy while on job. Increasing rate of "negative emotions" such as hatred, arrogance, jealousy and anger is diverting younger generation towards crime, they are making very aggressive, and to deal with them patiently we need academicians who can spread happiness while teaching/mentoring. While many people considers sensory experience as the main source of happiness, whereas in reality it is a peace of mind which can be easily destroyed through hate, anxiety and fear. Happiness counters this and through proper education and happy people we can learn to tackle such emotions. With this objective in mind researcher tried to explore the factors that generates happiness among academicians and also suggested the ways/strategies management can adopt to create happiness amongst them.*

**KEYWORDS:** *Happiness Quotient (HQ), Workplace Happiness, Negative Emotions, Performance, Productivity.*

## INTRODUCTION

Longman's dictionary (2005, pp.634) defines happiness as "state of being happy", means a feeling of gratification i.e. something is fine or correct, as being satisfied with something- not apprehensive or about being fortunate and doing well. Happiness is generally confused with a form of mood or emotion or satisfaction; also both these terms are used interchangeably by many authors. Happiness has termed as positive emotions by various psychologists. Workplace happiness is the result of strategies, principles, rules and regulations made by the top management. It is a general notion amongst employees that if they are successful at their job and completing all their targets well in time, they are happy. But today the scenario has been reversed. It's important to be happy, which will then help people become a success. There are enormous changes coming in the work environment. Long-established systems, policies, rules and strategies might not be apt for today's generation. For this generation meaning of work and work style has also changed. Old customs need revalidation and new approaches require fast adaptation. It is apparent of one becoming irritating and annoyed after a stretched and chaotic schedule but this may even not happen if one finds his work interesting enough. Getting engaged in work results in high productivity and will automatically generate interest only when employees are feeling happy at work place. Being happy is the key to productivity (Djoen, San. Santoso, 2016) and it has considerable relationship with performance (A. Michael, 1989). Employers also look forward to a high performing employee who in turn gives high productivity, to attain organizational goals. To enhance employee productivity HR department apply various managerial tools (e.g. reward system, direct communication, management support, involvement in decision making etc.).

## Conceptualization

Happiness is subjective i.e. feeling of well-being experienced by an individual, specially featured by the presence of affirmative emotions and the nonappearance of negative emotions. It may be distinct as the experience of recurrent positive effect, infrequent negative effect and on the whole a sense of satisfaction with life (M. McBride, 2010). Happiness at work is closely correlated with greater performance and productivity as well as greater energy, better reviews, faster promotion, higher income, better health and long life. If taken as a whole- idea of happiness is how much you like what you have or do. Even if two persons have everything equal they may differ in their happiness as it depends upon how much you actually require i.e. your expectations may differ.

In an academician's career their happiness does not only depends upon their job satisfaction, student's results and feedback but govt. systems, pay policies, organizational hierarchies also plays a major role. Academicians work in an all together different environment i.e. they deal with the younger generation in classrooms, matured individuals and learned faculty outside the classrooms and knowledgeable entrepreneurs to understand industry requirements.

Even though there are many studies available on the relationship between happiness and productivity, performance, stress among employees etc. concentrating on many industries e.g. Construction, IT, ITeS, Manufacturing, Textile, Telecom etc. but very few studies are available as far as academicians' happiness is concerned. Among academicians also, the higher education faculty plays the crucial role in shaping the personality of students from unrefined human product to refined saleable product to be further consumed by industry and later by the economy. Their low happiness level can influence their knowledge sharing and the ultimate sufferers are

definitely the students (MHRD Survey, 2015-16) so to enhance their performance keeping them happy is exceptionally important across the education sector.

This study mainly focuses on finding out the various factors which impacts their happiness at workplace. The results of this research might help institutes/higher education bodies to make rules and policies which may further augment academicians' happiness to accomplish their desired goals.

## **LITERATURE REVIEW**

### **Happiness**

Ford, et al. argued (2003) that happiness involves activities that conveys a sense of pleasantness, happiness and positive well being, that not only makes working satisfied but also fun. In psychology happiness is a relatively positive perception about self but definitely not total absence of negative emotions (Diener et al., 1991). Happiness at workplace has positive effects on performance. To make employees happy, companies must decide the factors that contribute to their happiness and pleasure at workplace. Workplace happiness and relationship between employees (individual or group) are, therefore positively related to each other. Frey and Stulzer (2000) examined three factors of happiness i.e. Personality & Demographic factors (work, income, community, value, religion, family, experience, education, gender and age), Micro and Macro Economic Factors (Per capita Income, Employment, Inflation) and third is Institutional Factors like democracy and federalism. Whereas, Graham, Eggers and Sukhtankar (2004) mentioned that happiness is subject to various changes and fluctuations, it is a part of our nature, inherent in us by our parents through genes.

### **Factors affecting Happiness at Workplace among Academicians**

Hill (1986) has reported empirical support for extrinsic factors such as salary, administrative work and fringe benefits as far as happiness among faculty is concerned, but he also supported research and teaching as intrinsic happiness factor. Lacy and Sheehan (1997), contended work environment, organization's atmosphere, relationship with colleagues were as predictors of happiness among academicians' across eight nations. Leung, Siu & Spector (2000) observed further that acknowledgment, management policies and monetary sufficiency are the predictor of job happiness among academicians. Mushtaq. A. Sajid, Imrab Shaheen (2013) in their study found that class room environment makes academicians happy. If their students are happy they don't even feel work load stress. Jennifer Rowley (1996) discussed the impact of financial rewards, classroom teaching culture, role diversity, autonomy and organizational structure on the academician's happiness at work. Further in this Farren and Nelson (1999) underlined that the employees' feels connected with those organizations which carry out mixture of staff development programmes compared to those who do not. Since long researchers have also maintained that variety of facilities (monetary/non monetary) has positive effects on employees' attitudes (Simons, Friedman, Liu & McLean Parks, 2007, Butter, Lowe, 2010). Empirical research done in Lithuania depicts that employee oriented practices always have a significant and positive relation with employee motivation as well as their happiness also affects employee turnover intentions.

Academic institutions transmit knowledge and develop students, their poor performance or low morale can influence the knowledge sharing and the ultimate sufferers are the future generations.

At apex level, the Indian higher education industry has number of Central, State, Deemed and Private Universities (All India Survey of Higher Education, 2016). This industry has either short of manpower, or the quality of faculty is very poor in terms of communication skills, subject expertise, industry academia interface etc. This requires the severe need for enhancing the attractiveness of teaching as a profession as well as motivator to select this profession by choice not by compulsion amongst the young generation.

### OBJECTIVES OF THE STUDY

The objective of this study is to:

- Find out factors influencing happiness of academicians at various institutions level;
- Study the impact of various demographic variables like age, gender and designation on academicians' happiness;
- Also to suggest measures to make academicians' happy at workplace.

### Hypothesis:

The research hypothesis proposed for this study is enumerated as under:

**H1:** Demographic variables like Age, Education and Designation significantly influence workplace happiness among academicians.

**H0:** Demographic variables Age, Education and Designation do not influence workplace happiness among academicians.

### RESEARCH METHODOLOGY:

The research study was conducted on academicians working in various universities (Govt., Private and Deemed) and colleges (self financing or aided) located in and around Delhi/NCR. Convenience purposive sampling method was used to obtain data through self administered survey questionnaire based on five point Likert scale, delineating the research purpose and assurance of confidentiality. Respondents were given a liberty of not to give their identifiable information to maintain the anonymity of the responses. The questionnaire included the instruments related to top management support, job satisfaction and work culture. Out of 350, 336 duly filled questionnaires were received back via mail or in person. 21 out of 336 returned questionnaires were found to be invalid, so in total 315 responses were used for further analysis. The study was conducted from January'17 – February'18.

For data analysis, statistical techniques like Mean, Percentage Method, Levene's test, t-test and analysis of variance (ANOVA) were used. Levene's test was used to test the equality of variances for a variable calculated for two or more groups (Levene, 1960).

### Reliability Analysis:

Table 1 represents the reliability coefficient of all scales used in this study. The reliability of the questionnaire was checked through Cronbach's alpha which is used to estimate the reliability of a psychometric test. Closer the Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale (Gliem & Gliem, 2003). The results of the test show that the items are reliable i.e. .882. The Kaiser-Meyer-Olkin (KMO) value for these variables were .859, indicating that the sample size was adequate for applying factor analysis (Field, 2005).

**TABLE 1: RELIABILITY ANALYSIS**

<b>Cronbach's Alpha</b>	.882 ( <i>ranges between 0 and 1, high internal consistency</i> )
<b>KMO</b>	.859 ( <i>higher than recommended value i.e. 0.5</i> )

## RESULTS AND DISCUSSION

The sample comprises all categories of academicians including assistant professor, associate professors and professors having minimum qualification required for the appointment on the concerned post. The sample was selected keeping in mind the faculty/student (1:2:3) ratio decided by UGC/AICTE also to provide due and adequate representation to various other variables like age, sex, gender, Nature of Organisation, Job Nature and department. The various classifications of samples are duly represented in Table 2.

**TABLE 2: DEMOGRAPHIC PROFILE OF RESPONDENTS**

<b>Respondent's Profile</b>		<b>Number (N)</b>	<b>Percentage (%)</b>
<b>Gender</b>	Male	125	39.7
	Female	190	60.3
<b>Age (in years)</b>	Up to 25 years	10	3.2
	25 to less than 35 years	151	47.9
	35 to less than 45 years	118	37.5
	More than 45 years	36	11.4
<b>Qualification</b>	NET/JRF Qualified	154	48.9
	M.Phil	17	5.4
	Ph.D	144	45.7
<b>Organization Nature</b>	Government	170	54.0
	Non Government	6	1.9
	Private/Self Financing	139	44.1
<b>Designation</b>	Professor	54	17.1
	Associate Professor	103	32.7
	Assistant Professor	158	50.2

Source: Primary data analysis

### Exploratory Factor Analysis

To find out the factors affecting academician's happiness level in an organisation, factor analysis was applied and 8 factors were obtained as a result of Exploratory Factor Analysis namely Research Activities (F1), Working Environment (F2), Fringe Benefits (F3), Personal Growth (F4), Job Security (F5), Salary (F6), Work Life Balance (F7) and Involvement in CSR activities (F8). Table 3 shows the mean and standard deviation of the various factors affecting happiness at workplace also factors were ranked further to check respondents' preference for the happiness factor.

**TABLE 3: MEAN, STANDARD DEVIATION AND RANKING OF FACTORS AFFECTING HAPPINESS**

Factor	Factor Name	Rank	Mean	S.D
1	Research Activities	VIII	4.00	0.66
2	Working Environment	VII	3.65	1.03
3	Fringe Benefits	III	4.16	0.74
4	Personal Growth	I	<b>4.32</b>	0.46
5	Job Security	IV	4.02	0.45
6	Salary	VI	4.01	0.69
7	Work Life Balance	V	4.05	0.64
8	Social Endeavors	II	4.21	0.56

Source: Primary Analysis

Table 3 shows that academicians want personal growth ( $\bar{x}$  = 4.32) through well structured organization chart/defined hierarchy; they expect an institute to define their career path clearly at the time of joining or through well defined individual career plan. Also due to government emphasis and increasing awareness among public for social causes, academicians have given importance to institutional social endeavors to serve societies and their involvement in same ( $\bar{x}$  = 4.21).

To establish the relationship between the happiness factors and various demographic variables ANOVA and t-test has been applied. Further the significant relationship between the groups within a demographic characteristic has been tested by applying Post Hoc test.

#### **Gender Wise Comparison of Factors Affecting Academicians' Happiness at Workplace:**

Academicians may have different views regarding happiness factors. To find out whether there is any significant difference between the mean score of male and female academicians's t-test has been applied (Table 4). Highest mean value for "Work Life Balance" (F 7) for both females ( $\bar{x}$  = 4.35) and males ( $\bar{x}$  = 4.27) depicts that both men and women wants to maintain equity in their professional and personal life. They give equal priority to enjoyment and work. For both salary is the second important factor which make them happy. Whereas in case of female academicians their involvement in social awareness programmes gives them happiness and male academicians feels happy when they are more involved in what and why questions related to various issues at social and professional front i.e. their involvement in research activities.

**TABLE 4: GENDER WISE COMPARISON OF FACTORS**

Factors (F)	Male (N=125)		Female (N=190)		t-value	Sig. Value	Hypothesis Accepted/Rejected
	Mean	S.D	Mean	S.D			
F 1	4.08	.71	4.03	.69	.592	.554	Rejected
F 2	3.97	.68	4.10	.61	-1.764	.079	Rejected
F 3	2.94	.76	3.24	.80	-3.414	.001*	<b>Accepted</b>
F 4	4.02	.65	4.00	.66	.246	.806	Rejected
F 5	3.47	1.07	3.77	1.00	-2.476	.014**	<b>Accepted</b>
F 6	4.12	.73	4.18	.75	-.622	.534	Rejected
F 7	<b>4.27</b>	.42	<b>4.35</b>	.49	-1.424	.156	Rejected

F 8	3.94	.47	4.07	.43	-2.391	.018**	<b>Accepted</b>
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Source: Primary Data

*F1: Research Activities, F2: Working Environment, F3: Fringe Benefits, F4: Personal Growth, F5: Job Security, F6: Salary, F7: Work Life Balance, F8: Social Endeavors.*

Further the results show that there is a significant difference between male and female academicians in the influence of F3 (Fringe Benefits), F5 (Job Security) and F8 (Social Endeavors) on their happiness.

Null hypothesis is hence rejected as there is a significant difference between male and female respondents regarding various factors affecting their happiness while working and performing in an institution.

### Age wise Comparison of Factors affecting Happiness

Age of an academician also came out as an important factor, which determines happiness quotient of academicians. Academicians under 35 years of age rates work life balance (F7) and flexibility (F2) at work place as more important than their salary and growth prospects in the college/institute as one of the important reason to be happy. Whereas, academicians above 35 years of age feel happy when they are involved in research activities (F1), get more salaries (F6) and are able to maintain work life balance (F7). They feel happy when an institute offers them competitive pay package and also provides them sufficient time and facilities to balance their work and life (**Table 5**).

**TABLE 5: AGE WISE COMPARISON OF FACTORS**

Age/ Factor	less than 25 years		25 to less than 35 years		35 to less than 45 years		Above 45 years		F	Sig.(p value )	Post Hoc Test Result Sig. Pairs	Hypothesi s Accepted/ Rejected
	A1		A2		A3		A4					
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.				
F1	3.59	.68	3.68	.59	<b>4.45</b>	.59	<b>4.48</b>	.48	46.428	.000*	A1 Vs A2 A1 Vs A3	Accepted
F2	4.04	.45	4.17	.71	3.96	.58	3.83	.47	4.115	.007*	A2VsA3 A2VsA4	Accepted
F3	3.38	.43	3.28	.79	2.97	.84	2.84	.55	5.444	.001*	A2VsA3 A2VsA4	Accepted
F4	3.58	.66	3.96	.65	4.16	.65	3.81	.62	4.967	.002*	A1VsA3 A2VsA3	Accepted
F5	3.66	.60	3.36	.99	4.28	.82	2.81	.82	34.248	.000*	A1VsA4 A2VsA3	Accepted
F6	3.43	1.12	4.02	.79	4.37	.58	4.22	.63	8.73	.000*	A1VsA3 A1VsA4	Accepted
F7	<b>4.56</b>	.44	<b>4.25</b>	.52	4.37	.39	4.35	.39	2.52	.058	-	Rejected
F8	3.93	.71	4.05	.51	4.02	.38	3.90	.31	1.14	.333	-	Rejected

Source: Primary Data \* Significant at 0.05 percent level. \*\* Significant at 0.01 percent level.

F1: Research Activities, F2: Working Environment, F3: Fringe Benefits, F4: Personal Growth, F5: Job Security, F6: Salary, F7: Work Life Balance, F8: Social Endeavors.

The comparison of factors between different age groups of respondents regarding factors impacting their happiness at workplace differ significantly except on two factors i.e. Work Life Balance (F7) and Social Endeavors (F8). Study clearly stated that because of the difference in age, employee priorities also change, at one point of time he gives more preference to salary and at another point of time he is more in favour of Research and CSR activities. To be happy at workplace academicians needs regular feedbacks and appropriate appraisals. Hence, the null hypothesis is rejected and alternate hypothesis accepted for these factors.

The post hoc test results (Table 5) reveal that the difference is significant among the different age group for six factors (except F7 & F8).

### Designation wise Comparison of Factors Affecting Happiness

Table 6 shows that Assistant professors feels happy when they have been provided cordial working environment (F7) in an institute ( $\bar{x} = 4.27$ ) through which they can maintain coordination between their family and job (F2) ( $\bar{x} = 4.22$ ). Teaching is known to be a profession which needs dedication and hard work not only for self but for society also. So faculty needs to be calm and cool while dealing with young generation of 20-25 years of age.

Associate Professor gives importance to factors which ensures their job security (F5:  $\bar{x} = 4.47$ ) along with Research activities ( $\bar{x} = 4.40$ ) and work life balance ( $\bar{x} = 4.40$ ) and same is in the case of professors. They also wants to be involved in more and more research projects ( $\bar{x} = 4.45$ ) sponsored/funded by UGC or companies respectively. But simultaneously they are also of a viewpoint that maintaining work-life and good salary package is equally important because of family responsibilities and presence of growing/teenage kids at home.

**TABLE NO. 6. DESIGNATION WISE COMPARISON OF FACTORS**

Designation/ n/ Factor	Assistant professor		Associate Professor		Professor		F	Sig. (p value)	Post Hoc Test Result Sig. Pairs	Hypothesis Accepted/ Rejected
	DS1		DS2		DS3					
	Mean	S.D.	Mean	S.D.	Mea	S.D.				
F1	3.70	.61	4.40	.67	4.45	.43	35.758	.000*	DS1VsDS2 DS2VsDS4	Accepted
F2	4.22	.66	3.93	.64	3.81	.44	7.710	.000*	DS1VsDS2	Accepted
F3	3.31	.81	2.93	.81	2.88	.55	7.879	.000*	DS1VsDS2	Accepted
F4	4.04	.57	4.08	.78	3.78	.63	2.979	.032*	DS2VsDS3	Accepted

F5	3.32	.95	<b>4.47</b>	.66	2.99	.89	49.423	.000*	DS2VsD S4	Accepted
F6	4.05	.79	4.26	.74	4.28	.57	2.22	.085	-	Rejected
F7	<b>4.27</b>	.54	4.40	.37	4.28	.35	1.66	.175	-	Rejected
F8	4.06	.50	3.99	.41	3.91	.39	2.043	.108	-	Rejected

\* Significant at 0.05 percent level. \*\* Significant at 0.01 percent level.

As per the results shown in Table 6, hypothesis that designation of faculty member significantly influences workplace happiness among academicians is accepted in case of five major factors namely research activities (F1), workplace environment (F2), fringe benefits (F3), growth factors (F4) and job security (F5). Post hoc results also state that this difference is significant in case of these five factors only.

### RELATIONSHIP BETWEEN ACADEMICIANS' PERFORMANCE AND HAPPINESS USING AMO THEORY:

After exploring the factors influencing academicians' happiness at the institute/college level interaction of extracted factors have been used to draw a matrix. The permanence of this matrix has been used to quantify the qualitative happiness factors. The happiness index thus obtained through the matrix has been related to the performance of the academicians. Thus, the factors of happiness are converted to a numerical value through which the degree of performance can be ascertained. So this matrix helped to quantify the qualitative factors of happiness. According to Davidoff (1987) individual performance is generally determined by three factors namely; Ability—the capability to do the job; Work environment—the tools, materials and information needed to do the job; and Motivation—the desire to do the job happily and readily.

In this paper, matrix is used to show the relationship between various happiness factors affecting three different levels taken for study i.e. assistant professor, associate professor and professors. The factors affecting different academicians working at different levels are related to each other. Through GTA i.e. through Digraph, matrix and permanent function the happiness index of assistant professor (perma  $H_{AS}$ ), associate professor (perma  $H_{ASOP}$ ) and of professors (perma  $H_P$ ) are obtained. Through this the happiness index of academicians ( $HI_A$ ) can be given as:

$$HI_A = \text{perma } H_{AS} + \text{perma } H_{ASOP} + \text{perma } H_P$$

The happiness index thus, obtained is linked to the academician's performance in the classroom as well in the institute.

The ability  $A_i$  to perform has to be understood in a broader sense. It includes an employee's knowledge, skills and abilities (KSA). This relationship is based upon the AMO theory where ( $P_i$ ) is the performance of an individual, ( $i$ ) is function ( $f$ ) of his or her ability ( $A_i$ ) to perform, his or her happiness/willingness to perform happily ( $M_i$ ), and the opportunity to perform in the job is  $O_i$  (Boxall and Purcell, 2011):

$$\text{Performance } (P_i) = \text{Ability of an individual to perform } (A_i) \times \text{Happiness } (M_i) \times \text{Opportunity to perform } (O_i)$$

The derived happiness index obtained can further be used to measure the performance of an individual and ultimately the performance of an organization as a whole. The motivation index can be used in the AMO theory as follows:

Performance of an organization = Sum total of performance of employees of the organization. As per the results of present study performance of an academic institution can be measured as:

**$P_{AI} = HI_A \times N$  (Ability of Academician X Opportunity provided to Academician)**

Where  $P_{AI}$  is the performance of an academic institution, N is the number of academicians in the institution.

## CONCLUSION AND SUGGESTIONS

The results of the study clearly shows that most of the academicians irrespective of their age, experience and designation ranked work life balance and working environment of an institute or college as the most important happiness factor. The reason for ranking these factors as most important could be due to high family expectations along with student's expectations from their faculty. Due to increasing use of ICT tools in teaching and training, student's and faculty involvement has become of 24/7, which might have become troublesome for faculty members. In comparison to government universities/aided colleges, private college faculties need more up gradation with the latest technological innovations; they have more work pressures, less holidays and no time barrier. Consequently, academicians do not find much time for their families and leisure activities. So the management should provide them proper facilities, holidays to help them to lead a balanced life. When faculty stays for long hours in the campus they should be compensated properly so that they should not feel that their jobs are taking toll of them. Some faculty members look for more and more sponsored research work to be happy, so whenever management gets a sponsored project, interested faculty members should be given opportunity to take that project further.

There are only few faculty members those who have given importance to salary, this is somehow in contradiction to the earlier literature, where most of the faculty members specifically in the age group of 25-30 years and are at the assistant professor level, have ranked salary as the most important happiness factor.

The study analyzed the various factors which impacts academicians' happiness and found that except for work life balance, research activities and working environment, all other factors are available to academicians according to their ranked importance assigned to them by respondents. Study also obtained a happiness index using matrix and has developed an equation which can be applied to find out the relationship between happiness and performance. The study contributes to the body of literature by applying a customized set of happiness factors on an understudied but important respondent's i.e. higher education academicians.

## LIMITATIONS

This study has certain limitations, which should be kept in mind while applying the findings. First this study has been conducted on academicians working in higher education institutes situated in Delhi/NCR, and thus entails a specific socio-cultural environment that may limit the potential level of generalization.

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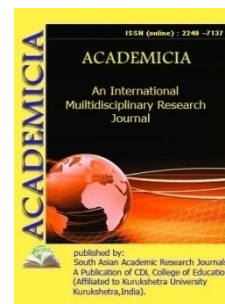
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## PROBLEMS OF ANTHROPOGENESIS AND SOME CONSIDERATIONS ON PALEOANTHROPOLOGICAL DISCOVERIES FOUND IN UZBEKISTAN

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### ABSTRACT

*The article examines many paleoanthropological finds identified by archaeologists, paleoanthropologists and other leading specialists in this field over the past 30 years as a result of successive archaeological and scientific research in Paleolithic sites over the past 30 years. the word is coming. Some reviews of scientists about paleoanthropological finds found as a result of research on the territory of Uzbekistan, as well as an analysis of problems waiting for the solution of existing problems in this area, different views and opinions on scientific foundations.*

**KEYWORDS:** *Paleolithic, Paleoanthropology, Paleontologists, Hominids, Australopithecus, Homo Habilis, Homo Ergaster, Homo Erectus, Hominanderthalensis, Homo Sapiens Sapiens, Eastern Africa, Eurasia, Near East, Skhul, Kebara, Qafzeh, Altai, Levant, Central Asia, Teshik-Tash, Obi-Rahmat, Angillak, Stone Industry, Middle Paleolithic.*

### INTRODUCTION

The origin of man is one of the most problematic discussions, and the question of his evolution remains the most interesting. Numerous paleoanthropological finds were obtained as a result of successive archaeological and scientific research carried out over the past 30 years in Paleolithic sites by leading experts in the field of archaeology, paleoanthropology and other fields. This, in turn, gave rise to new views in the theories of human origin (anthropogenesis). It is known that the first physical types of ancient hominids (Australopithecus, Homo habilis, Homo ergaster, Homo erectus) and archaic bone remains of Homo sapiens sapiens and habitats were found on the African continent. The most ancient human remains of the modern Homo Sapiens Sapiens

type found in East Africa are dated 200-150 thousand years while on the Eurasian continent the archaic Homo Sapiens Sapiens type meets in Shul, Kebara and Kafsex's monuments in the Middle East and is dated 100-80 thousand years. The remains of the bones of the archaic Homo sapiens found in East Africa are much older than the paleoanthropological finds of this form found on the Eurasian continent and the difference between 100,000 and 70,000 years. So in which region did modern man and his culture first appear? In Africa or Eurasia? As a result, many questions and disputes arose in the scientific community about the appearance of modern man, so there is still no consensus on when and where modern man first appeared (Homo sapiens sapiens), and there are various theories. Therefore, the world of science is now divided into two main supporters of the idea of the appearance of modern man - poly centrists and mono centrists [10, 5].

Polycentrists uphold the multi-regional theory of human evolution, that is, the idea that Homo sapiens appeared simultaneously in the African and Eurasian regions. Monocentrists claim that the centre of the appearance of the modern type of man is Africa, from which Homo sapiens penetrated Europe, Asia and other continents through the Middle East [10, 5]. The scientific community naturally approaches such ideas and problems from its own point of view. Therefore, most of the new information obtained in the 21st century as a result of consistent scientific research by archaeologists, paleoanthropologists, paleogenetics and other experts confirm that the first people of the modern type appeared in Africa.

## **MATERIALS AND METHODS**

It is known that in Eurasia, Neanderthals (owners of the Muste culture) inhabited large territories on the Eurasian continent 100,000 years ago and settled on the Iberian Peninsula by the end of the last ice age. Archaeological excavations also discovered the last Neanderthals in some Paleolithic monuments on the Iberian Peninsula and in the Crimea. Neanderthals lived there for several millennia and for some reason disappeared from the face of the earth about 20-24 thousand years ago. Such extinction of Neanderthals still remains a mystery, there are a number of theories about the causes and solution of the problem [20, 274].

The earliest of these theories is that Neanderthals were genetically predisposed to mix with homo sapiens sapiens, while another theory states that Neanderthals could not adapt to natural climate changes (recent ice conditions). However, this theory is also far from the truth, because during the last ice age the northern latitudes of Eurasia were covered with ice, the climate changed dramatically, the cold current penetrated the middle reaches of the continent, naturally in such harsh climatic conditions. those who have been forgiven, that is, physically and mentally prepared to withstand abrupt climate change.

Another theory suggests that Neanderthals became extinct because they could not compete for the ecological spaces owned by sapiens raw sapiens, that is, that the modern type of people with their highly developed mind and high stone processing techniques may have supplanted Neanderthals. Another theory states that Neanderthals became extinct as a result of viral diseases caused by homo sapiens [20, 274]. Proponents of another theory argue that Neanderthals became extinct as a result of wars with modern homo sapiens sapiens. Similar theories of anthropogenesis have been put forward by the scientific community, but none of the above theories has yet been confirmed on the basis of data obtained from archaeological excavations. Therefore, the question of the extinction of Neanderthals from the face of the earth remains controversial.

Consequently, "Homo neanderthalensis" and "Homo sapiens" lived simultaneously and side by side in different regions of Eurasia for several tens of thousands of years. In some regions, the stone industry and early religious rites were also very similar among these two hominid representatives. For example, in the Middle East, the stone industry is very similar, and the burial of the dead takes place in two different cultures, and it is difficult to separate them if no ancient human remains are found at the site. Archaic homo sapiens found in the monuments of Shula, Kebara and Kafsex in the Middle East had archaic elements typical of Neanderthals in terms of the morphological characteristics of sapiens, as well as modern features of the type [20, 275].

However, the relationship between the first homo sapiens and Neandertals, who lived in the Middle East, Europe, Asia Minor and Europe for 100-30 thousand years and were geographically close to each other, remains unknown. The next new archaeological study will show the processes that have occurred in these regions, whether there is an interaction between the owners of the Muste culture - Neanderthals and modern people. In the world of science, that is, anthropogenesis, such discussions are still ongoing. Uzbekistan is a favourable geographical area for the formation, development and residence of ancient people.

Therefore, from the middle stage of the Quaternary period (Pleistocene), this region was mastered by physical types of ancient hominids such as Homo erectus, and from the last period of the Pleistocene - Homo neanderthalensis and Homo sapiens sapiens. The territory of our country is rich in archaeological sites, especially of the medieval Stone Age, and is one of the historical and cultural centres inhabited by a number of ancient physical types of people, Neanderthals and Homo Sapiens Sapiens. The discovery of paleoanthropological and paleoanthropological finds, along with archaeological materials, made the monuments here world-famous (Teshik-Tash and Obirakhmat, man).

The study of the ancient Stone Age in Uzbekistan began in 1938 with the opening of the famous cave monument Teshik-Tash in the Middle Paleolithic period, and the monument was studied by A.P. Okladnikov in 1938-1939 [17]. During the excavations, 5 cultural layers were identified, and the entire area of the monument filled with cultural layers was excavated. The stone industry has the appearance of Muste, and the bones of a Neanderthal, still unique in Central Asia, were found in the upper layers of the culture. The child's body was buried in a cave according to the rules of time. Goat horns are nailed around the body in a circle, which indicates that the burial ceremony began during the Middle Paleolithic period in our country and was one of the first tombs of the Muste period. Apparently, shortly after the child was buried, the skeleton, which became the prey of the beast, lost its initial anatomical connection without being completely preserved. The tomb contained a skull, a fragment of the spine, two vertebrae, two large hip fractures and two small hip bones, as well as the lower jaw of the child. This find was repaired by anthropologist M. M. Gerasimov (who combined 150 parts of the skull). There are different opinions about the taxonomic status of the person Teshiktash [4, 139; 6, 48; 21, 6]. The skull of the find was studied by G. B. Debet in the 1940s, and according to its morphological signs, the Teshiktash man belonged to the Neanderthal at the age of 9-10 years [6, 47].

The famous scientist V.P. Alekseev, on the other hand, considered it advisable to include this find in the "shul" group (the first modern type of people), given the fact that the Neanderthal child was much younger and more prone to variability [1, 55]. As a result of special studies in man Teshiktash traces of his bones were removed from the flesh using stone tools [23, 76].

Archaeological materials from the monument (approximately, the analysis of the monument is impossible, because the entire area of the monument was excavated) belong to the late Pleistocene period [16, 170].

The absolute date of uranium fossils obtained using the uranium method is from 114 to 23 thousand years (although there is no mention of how fossils are located in layers) [24, 187].

As a result of the development of science in the 21st century, new scientific data are presented on the basis of the latest modern methods of natural science in the study of archaeological, paleoanthropological and paleoanthological finds from monuments of the Stone Age and their analysis (using natural sciences).

In this regard, the paleoanthropological find in Teshik Tash was studied on the basis of modern new methods. In particular, according to a study conducted by Ternes Ritzman in 2003-2004, while a man from the Stone Hole was again identified as an archaic man *Homo sapiens sapiens*, a recent genetic analysis (DNA) determined that the find belongs to the Neanderthal physical type of hominids [3, 251]. The final results of new assays conducted in a similar manner in the human Teshiktash also show that hominids are of the physical type *Homo neanderthalensis*. In general, man-Teshiktash is still the easternmost representative of Neanderthals of the physical type of hominids discovered and studied in Eurasia [21, 8].

Today, the regions of Uzbekistan play a key role in finding solutions to pressing global problems, such as the emergence and spread of modern man, his dependence on the past population and changes in the material culture of people of the Stone Age. As a result of the intensification of the study of the Paleolithic period outside Europe, the scheme according to which the development of material cultures that dominated primitive archaeology in recent years was associated with changes in anthropological types has lost its universality. The new data require significant changes in previous concepts. If for a long time the appearance of modern man was considered an event that coincided with the transition from the Middle Paleolithic to the Late Paleolithic, modern materials show that the appearance of modern people, on the one hand, and elements of the Late Paleolithic culture, on the other, is much older. Today, the regions of Uzbekistan play a key role in finding solutions to pressing global problems, such as the emergence and spread of modern man, his dependence on the past population and changes in the material culture of people of the Stone Age. As a result of the intensification of the study of the Paleolithic period outside Europe, the scheme according to which the development of material cultures that dominated primitive archaeology in recent years was associated with changes in anthropological types has lost its universality. The new data require significant changes in previous concepts. If for a long time the appearance of modern man was considered an event that coincided with the transition from the Middle Paleolithic to the Late Paleolithic, modern materials show that the appearance of modern people, on the one hand, and elements of the Late Paleolithic culture, on the other, is much older. After A.P. Okladnikov discovered the grave of the famous Neanderthal in the Teshiktash cave in 1938, the discovery of the man Obirahmat is the first anthropological find that allows you to restore the physical appearance of the ancient inhabitants of the Stone Age in Central Asia. In practice, for the first time, it turned out that the transition industry is associated with a specific physical type of person. Currently, there are practically no such conclusions in the world. The uniqueness and important historical significance of both the man Obirahmat and the materials of the cultural monuments of Obirahmat

necessitated the convening of an international conference on the problems of the Stone Age in Central Asia. This conference was held on August 9-15, 2004 in Uzbekistan (Tashkent - the village of Bourgeimola - Samarkand). The conference was funded by the prestigious Wenner-Green International Science Foundation. The conference was attended by prominent scientists from more than 10 countries (Uzbekistan, Russia, Tajikistan, USA, Austria, France, Germany, Czech Republic, Belgium, Spain, Sweden, Luxembourg, Japan). Before the meeting, a collection of articles was published, which contained all the known information about the comprehensive study of the culture of Obirahmat [12, 80]. At this highly professional conference, the latest information on Uzbekistan's Paleolithic past was presented and interpreted in connection with the latest scientific developments in different parts of the world.

As a result of research in Obirahmat, the idea of migrating people from the Middle Paleolithic to these areas was put forward. This was based on the similarities of the industries of the Middle East, Central Asia and Altai, which reflected the transition period to the Late Paleolithic, had a common basis and developed convergence [13, 131]. It is argued that cultures are characterized by similar paleoecological conditions in addition to the general basis for the convergence of evolutionary changes. In this sense, the ancient inhabitants of the Levant, Altai and Central Asia lived in the mountains and foothills, where nature is distinguished by its complex structure and great diversity. [26] Coniferous and deciduous forests, small-leaved taiga plants, dry steppes and meadows simultaneously dominated the valley. This situation allowed primitive people to choose a comfortable environmental environment for themselves, depending on the time of year.

## CONCLUSION

It is difficult to say with complete certainty that the man of Obirahmat today is inherent neither in modern man, nor in the Neanderthals, nor in the archaic Homo sapiens [15, 13].

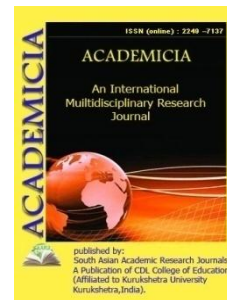
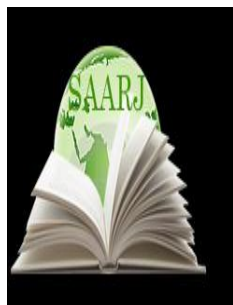
Thus, the conclusions of the Obirahmet man indicate a revision of the existing ideas about the emergence and development of Neanderthals and people of the modern type, dominating world science [25, 232]. Another paleoanthropological discovery found in Uzbekistan can be illustrated by the find of the Angillak cave, considered the last stage of the Middle Paleolithic from the territory of the Kitaba district of the Kashkadarya region. The monument was opened in 2001 by a mature specialist, archaeologist Sulimanov [22, 17]. Work on the study of space was carried out by the Uzbek-American international archaeological expedition, the excavations were attended by students, teachers of UzNU, specialists from the Department of Anthropology of the University of Colorado, employees of the Institute of History and Archeology of the Academy of Sciences of the Russian Academy of Sciences. As a result of excavations from the Angillac cave, the remains of one metatonic bone of an ancient man's right leg were discovered, and it is now difficult to determine whether it belongs to Neanderthals or a man of the modern type. However, according to the remains of the 16th cultural layer of the Obirahmat cave found in 2003 and the remains of a human hybrid for 60 thousand years, Anguilla man can also be attributed to Homo sapiens [25, 233].

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## **SURFACE IDENTIFICATION METHODS USED IN LAND MANAGEMENT AND LAND CADASTRE**

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### **ABSTRACT**

*One of the most laborious tasks in the complex of topographic and geodetic surveys performed to identify land users and agricultural lands, land management and land cadastre. Therefore, the use of EXM and modern technical means for surface detection meets modern requirements.*

**KEYWORDS:** *Plan, Contour, Surface, Truss, Structure, Piece, Pallet, Connection Surface, Land Cadastre, Topographic And Geodetic.*

### **INTRODUCTION**

Land is an important part of the natural environment, it is characterized by space, relief, climate, soil vegetation, groundwater, water, is the main means of production in agriculture. Also, all sectors of the economy are the spatial basis for the placement of organizations, enterprises. Consequently, the issue of land survey requires a single state approach, which should be carried out on a regular and comprehensive basis [1].

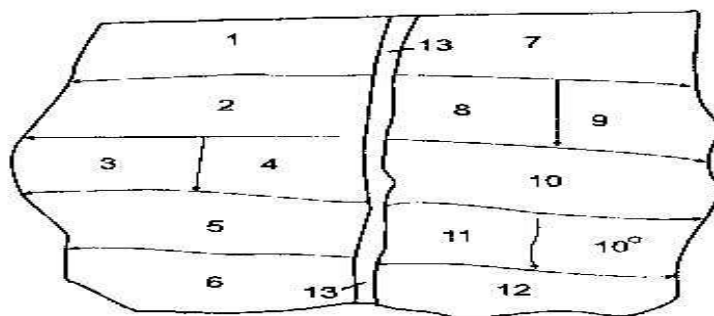
### **MATERIALS AND METHODS**

After calculating the surfaces in the fragment method, we proceed to the definition of surfaces in the contour method. Determining the surface along the contours is determined separately for each plot (paykal) area as follows:

- 1) Each contour is marked with Arabic numerals (Figure 1). When marking, it is not recommended to go to the next section without fully numbering the contours in the section area. If any contours are left unnumbered, then an additional number is assigned to it, for example, 10a, 77a, and so on. In the plan, all the linear elements (roads, canals, etc.) depicted

with two lines are marked with a number on the territory of the farm, and this number is written in several places along the length of the structure. [1, 2, 3, 4].

- 2) The surface of each contour must be determined at least twice for inspection. Large contours are defined by a surface planimeter, contours up to 5 cm<sup>2</sup> by circular or parallel pallets, and contours up to 2 cm<sup>2</sup> by square pallets.



**Figure 1.** Determining the surface along the contours for the area of each piece (pile).

The surface of linear contours, drawn and numbered by two lines in the plan, is defined as an example of determining the surface area of a rectangle, i.e. by multiplying the width by the length. The width of these contours is usually indicated on the plan, otherwise it is determined by measuring in the plan. [1, 2]. The results of the calculations are recorded in column 2 of the table for determining the surfaces on the contours (Table 1).

- 3) The non-bonding of the surface on each piece and its allowable value is determined as follows:

$$f_p = \sum_1^n P_K - P_{\phi}, \quad (1)$$

$$f_{p_{\text{пче}}} = 0,07 \sqrt{P_{\phi}, 2a}, \quad (2)$$

Where-  $\sum_1^n P_K$  - is the sum of the surfaces of all the contours in the area of the section, ha;

$P_{\phi}$  - the corrected surface of the piece, ha (taken from Table 1).

- 4) If the non-bonding error is tolerable, i.e., it is distributed to the calculated surfaces in proportion to the inverse sign and the corrected surface of the contours is determined.
- 5) The surface of narrow contours (field road, ditch, etc.) that serve as the boundaries of land areas is determined. Their surfaces are defined as calculating the surface of the linear contours indicated by two lines in the plan.

If the linear contours are represented by a line in the plan and its width is not indicated, then its width is assumed to be 4 m in the plan at a scale of 1: 10000. Half of the surface of the defined narrow contours is subtracted from the corrected surface of the corresponding contour and the net surface of the area is found. All calculations are recorded in the corresponding columns of Table 1.

$$f_p = \sum_1^n P_K - P_o = 161,89 - 162,53 = -0,64ha, \quad (3)$$

It is one of the most labor-intensive works in the complex of topographic and geodetic surveys for land users and agricultural lands, land surveying and land cadastre.

**TABLE 1.DETERMINING THE SURFACE ALONG THE CONTOURS**

Pieces	Contours	calculated surface P, ha	Corrections, ha	Corrected surface R, ha	Wide narrow contour surface			Clean surface
					submerged lands, ha	subsoil, ha	boundaries, ha	R, ha
1	2	3	4	5	6	7	8	9
	1	6,44	+0,02	6,46	0,10	0,07		6,29
	2	10,63	+0,05	10,68	0,13	0,08		10,43
	3	10,52	+0,05	10,57	0,10	0,05		10,42
	4	8,61	+0,04	8,65	0,04	-	0,01	8,60
	5	21,14	+0,08	21,22	0,36	0,20		21,66
V	6	20,80	+0,08	20,88	0,20	0,12		20,56
	7	13,05	+0,05	13,10	0,38	0,14		12,48
	8	8,24	+0,04	8,28	0,06		0,02	8,20
	9	9,73	+0,04	9,77	0,07			9,70
	10	23,05	+0,09	23,14	0,40	0,10		22,64
	10 <sup>a</sup>	6,08	+0,02	6,10	0,16	0,08		5,86
	11	7,36	+0,03	7,39	0,09		0,03	7,27
	12	11,76	+0,04	11,80	0,08	0,10		11,62
	13	4,50	+0,01	4,51				4,51
results		161,89	+0,64	162,53	1,67	0,54	0,06	160,26

Therefore, the use of EXM and modern technical means in the detection of surfaces is in line with modern requirements.[15 Nowadays, due to the great potential of the EXM, the areas of land users are determined in a more analytical way, that is, by the calculated values of the coordinates of the boundary markers. In the absence of these values, the values of the coordinates found by photogrammetric or graphical methods are used. Programs were prepared in the EXM according to algorithms based on formula (1), which is used to calculate the surfaces of polygons by the coordinates of their ends.

In order to increase the productivity of the cocktail in determining the surfaces by coordinates, the coordinates are measured in the plan using coordinates (coordinates, coordinates) and their results are automatically recorded and transferred to the memory of the EXM.[1, 3, 5, 6].

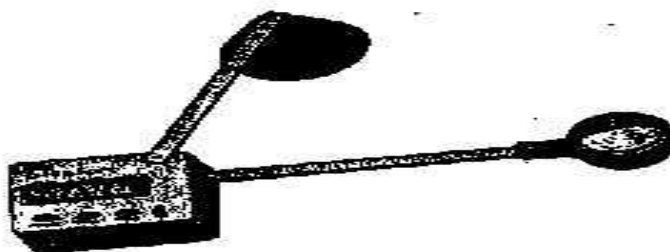
The device, which automatically registers the coordinates added to the coordinate graph of the firm Karl Zeiss, was developed at the Central Research Institute of Geodesy, Aerophotogeodesy and Cartography in Novosibirsk (GAvaKMITI). SMP 6410 graphic structure, Swedish Geotracer electronic plan meter, Polish Labimex cartometers work on this principle, ie in conjunction with the coordinate meter and EM (developed by the Autograph Research and Production Association in Orel).

All of these devices are also designed to detect contour surfaces, and the coordinates of points along the clockwise path are automatically recorded every step of time, such as every second, or step of distance, for example, every millimeter, as the contour boundary rotates using the circle index. To do this, an algorithm was developed in GA and KMITI, which calculates the surface of all contours in the EXM, and the publication is given a table of contour surfaces on the territory of the tablet or farm and land explication by type of land [2, 4, 8, 9].

The program provides for the generalization of contours along the territory of the coordinate registration step, connecting the bases, taking into account the deformation of the paper. According to the program, first the surfaces of the ground users connected along the territory of the tablet are determined, and then - the surfaces of the contours are connected to the total area of the ground user. Unfortunately, due to the complexity of the structure of these devices and, most importantly, their high cost, it is difficult to introduce them into mass production.

Therefore, in the plan, the surface area is determined on a polar planimeter with a widely used tool - a variable rotation lever.[10, 11]In terms of accuracy, the polar planimeter often meets the requirements of land surveying and land cadastre, because the error in depicting the contour surface of the plan, in general, is greater than the error of determining it with a planimeter. However, in terms of cocktail efficiency, it lags far behind modern requirements and is often expressed in counting from the manual conversion and calculation mechanism of these forms.[13, 14]

Therefore, various models of electronic planimeters have been invented, which are exempt from the manual rotation of operators, but they do not often speed up the work process because they require labor-intensive preparation processes. There are various modifications of polar planimeters, from which the design of the British firm Stanley is noteworthy. The readings in the calculation mechanism generated by the photocells in the device are transferred to the computer and it calculates the surfaces, and the results of the calculations are typed in the form of a calculation account of the contour surfaces. Polar planimetry of Kempten (Germany), Figure 1.



**Figure 1.**Polar planimeter.

then the result of the rotation is displayed on the board of the calculation mechanism, and the work on the detection of surfaces (about twice as much as a simple planimeter) "Plakom" (Japan) linear polarity planimeter, which allows to calculate the sum of the surface and contours of the rotating unit in the indicator.



**Figure 2.**Linear polar planimetry.

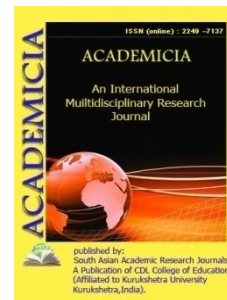
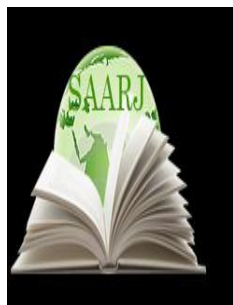
## CONCLUSION

In our Republic, the determination of land surfaces for land surveying and land cadastre is now carried out mostly with conventional polar planimeters, but programs are developed in EXM for the development of measurement results of coordinates of points on the boundary of the land user and the numbers obtained on the calculator wheel. The operator measures the coordinates of the points and rotates the contours with a planimeter, records the numbers on the coordinate and calculation mechanism, and all subsequent calculations are performed on the EXM.

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## THE EMERGENCE OF NEW PROBLEMS IN THE STUDY OF PROBLEMS IN GEOMETRY

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### ABSTRACT

*In the above article considered some tasks geometry and methods of their solution. In the article are two vector formula and showing their use in the challenges. The aim of the article to encourage students from interest to the vector by the method of solving problems and demonstration of various properties of the vector unit. And also in the geometric problem, various properties of the corresponding geometric shape are shown.*

**KEYWORDS:** Circle, Vector, Homothety, Coefficient, Centroid, Midpoint, Angle, Bisector, Orthocenter.

### INTRODUCTION

The study of problems in geometry can be interpreted quite widely, considering it not only as are integral part of the solution of the problem itself.

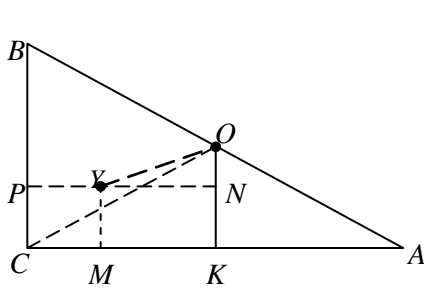
In the course of solving any geometric problem, various properties of the corresponding geometric figure are discovered. In this case, properties that are not used in the presentation of the solution can be detected. The study of the problem, it seems to us, begins when, having

solved it, we continue to search for new properties of the figure given in the problem. In some cases, these new properties can be quite interesting and of various generalizations.

Problem 1. Points  $O$  and  $J$  are the centers of the circumscribed about a right triangle  $ABC$  and the circles inscribed in it,  $R$  and  $r$  are their radii. Prove that

$$OJ^2 = R^2 - 2Rr$$

Solution. Let the legs of a right triangle " $a$ " and " $b$ " (see fig.1).  $OA = OB = OC = R$ ,  $JM = MC = CP = PJ = r$ ,  $AC = b$ ,  $BC = a$



$$CK = \frac{b}{2}, OK = \frac{a}{2}, JN = \frac{b}{2} - r, ON = \frac{a}{2} - r$$

From a right triangle  $JON$ . We get the following equation

$$OJ^2 = JN^2 + ON^2 = \left(\frac{b}{2} - r\right)^2 + \left(\frac{a}{2} - r\right)^2 =$$

fig 1.

$$\begin{aligned} OJ^2 &= JN^2 + ON^2 = \left(\frac{b}{2} - r\right)^2 + \left(\frac{a}{2} - r\right)^2 = \frac{b^2}{4} - br + r^2 + \frac{a^2}{4} - ar + r^2 = \\ &= \frac{a^2 + b^2}{4} - ar - br + 2r^2 = \frac{4R^2}{4} - r(a + b) + 2r^2 = R^2 - r(2r + 2R) + 2r^2 = \\ &R^2 - 2r^2 - 2Rr + 2r^2 = R^2 - 2Rr \end{aligned}$$

Equality proven. Now we generalize this formula for an arbitrary triangle. For, this, we prove two vector formulas and their application in solving problems.

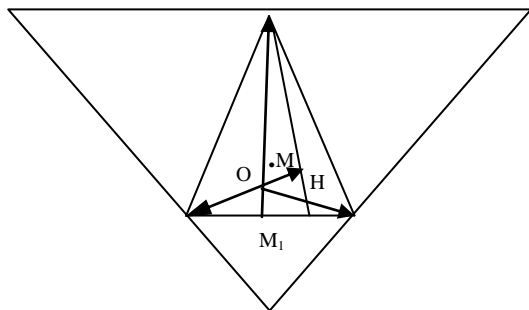
1. If  $O$  – is the center of the circle circumscribed about the triangle  $ABC$ ,  $H$  is then

$$\overrightarrow{OH} = \overrightarrow{OA} + \overrightarrow{OB} + \overrightarrow{OC} \quad (1)$$

Evidence. Through the vertices of triangle  $ABC$  we draw straight lines parallel to its (fig.1), we obtain triangle  $A_1B_1C_1$ , which will be the image of triangle  $ABC$  under homothety centered at the  $M$  centroid point of triangle  $ABC$  and with coefficient  $k = -2$ . We have  $\overrightarrow{OH} = \overrightarrow{OA} + \overrightarrow{AH}$ . If  $M_1$  is the midpoint of the side  $BC$ , then  $H_M^{-2}(AH) = OM_1$ . Therefore,  $\overrightarrow{AN} = 2\overrightarrow{OM}$ . But  $2\overrightarrow{OM}_1 = \overrightarrow{OC} + \overrightarrow{OB}$ , whence  $\overrightarrow{OH} = \overrightarrow{OA} + \overrightarrow{AH} = \overrightarrow{OA} + 2\overrightarrow{OM}_1 = \overrightarrow{OA} + \overrightarrow{OB} + \overrightarrow{OC}$

2. Given triangle  $ABC$ . If  $J$  – is the center of the inscribed circle, and  $D_1, D_2, D_3$  are the intersection points of the bisectors of its internal angles with the circumscribed circle (with center  $O$ ), then

$$\vec{OY} = \vec{OD}_1 + \vec{OD}_2 + \vec{OD}_3. \quad (2)$$



– its orthocenter, and by

fig. 2.

formula (1) applicable triangle  $D_1D_2D_3$  we have the formula

(2).

Now we generalize problem 1.

$$OJ^2 = R^2 - 2Rr$$

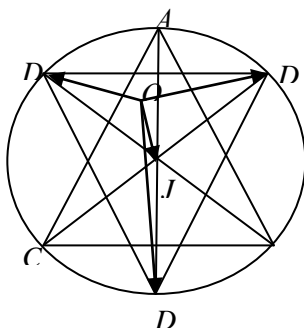


fig 3.

1. Given triangle  $ABC$ . Prove that

$$\cos A + \cos B + \cos C \leq \frac{3}{2}$$

where  $A, B, C$ , are the angles of the triangle.

Evidence. We square both sides of equality (2), we get

$$\vec{OJ}^2 = (\vec{OD}_1 + \vec{OD}_2 + \vec{OD}_3)^2 = 3R^2 - 2R^2(\cos A + \cos B + \cos C) \geq 0$$

from here

$$\cos A + \cos B + \cos C \leq \frac{3}{2}$$

2. Given triangle  $ABC$ . Prove that

Indeed, consider the angle  $D_1, L_3, D_3$ , where  $L_3 = (CD_3) \cap (D_1D_2)$  (fig.2).

$$\angle D_1L_3D_3 = \frac{1}{2}(\angle D_2D_1D_3) = \frac{1}{2}(\angle B + \angle A + \angle C) = 90^\circ,$$

that means  $D_3L_3$  - is the height of the triangle  $D_1D_2D_3$ . It is proved similarly that  $D_1L_1$  and  $D_3L_3$  are the heights of the triangle, and therefore  $J$

Evidence. We square both sides of equality (2), given that

$$r = 4R \sin \frac{A}{2} \sin \frac{B}{2} \sin \frac{C}{2}, \text{ we get}$$

$$\begin{aligned} \vec{OJ}^2 &= (\vec{OD}_1 + \vec{OD}_2 + \vec{OD}_3)^2 = 3R^2 - 2R^2(\cos A + \cos B + \cos C) = \\ &= 3R^2 - 2R(r + R) = R^2 - 2Rr. \end{aligned}$$

From the last equality we can prove the following equalities.

$$\sin \frac{A}{2} \cdot \sin \frac{B}{2} \cdot \sin \frac{C}{2} \leq \frac{1}{8}$$

where  $A, B, C$  are the angles of the triangle.

Evidence. Given that

$$\begin{aligned} 1 + \cos A + \cos B + \cos C - 1 &= 1 + 2 \sin \frac{C}{2} \cdot \cos \frac{A-B}{2} - 2 \sin^2 \frac{C}{2} = 1 + 2 \sin \frac{C}{2} \left( \cos \frac{A-B}{2} - \cos \frac{A+B}{2} \right) = \\ &= 1 + 4 \sin \frac{A}{2} \cdot \sin \frac{B}{2} \cdot \sin \frac{C}{2} \leq \frac{3}{2} \end{aligned}$$

from here

$$\sin \frac{A}{2} \cdot \sin \frac{B}{2} \cdot \sin \frac{C}{2} \leq \frac{1}{8}$$

3. In triangle  $ABC$   $a, b, c$  are the lengths of the sides, move over  $b > a > c$ , A circle with center  $J$  is inscribed in this triangle and a circle with center  $O$  is described around it. Prove that: 1) if the line  $OJ$  is perpendicular to the bisector of the angle  $BAC$ , then the sides of the triangle  $ABC$  are arithmetic progression: 2) if the line  $OM$  ( $M$  is the centroid of triangle  $ABC$ ) is perpendicular to the median drawn through the vertex  $A$ , then the squares of the sides make up the arithmetic progression.

Evidence. 1) The bisector of the angle  $BAC$  intersects the circumscribed circle at point  $D_1$ , (fig.3), so using the condition, we can write that  $AJ = JD$ , and  $2\overrightarrow{OJ} = \overrightarrow{OD_1} + \overrightarrow{OA}$ . Given formula (2), we have  $2(\overrightarrow{OD_2} + \overrightarrow{OD_3}) = \overrightarrow{OA} - \overrightarrow{OD_1}$  since  $OD_1 = OD_2 = OD_3 = R$  ( $R$  is the radius of the circumscribed circle), then  $8R^2 - 8R^2 \cos A = 2R^2(1 - \cos(A + 2C))$  or  $2 \sin \frac{A}{2} = \sin \left( \frac{A}{2} + C \right)$ , whence

$$2 \sin A = \sin B + \sin C, \text{ or } 2a = b + c.$$

2) Continue median to the intersection with described circle at the point  $D$  (fig.4). Since orthocenter  $H$  belongs to direct  $OM$ , then  $\overrightarrow{OH} \cdot \overrightarrow{AM} = 0$ ,  $3\overrightarrow{OM} = \overrightarrow{OH}$ ,  $\overrightarrow{AM} = \overrightarrow{OM} = \overrightarrow{OA}$ . Means by formula (1)  $3\overrightarrow{AM} = \overrightarrow{OC} + \overrightarrow{OB} - 2\overrightarrow{OA}$ , and given the condition, we obtain

$$(\overrightarrow{OA} + \overrightarrow{OB} + \overrightarrow{OC}) \cdot (2\overrightarrow{OA} - \overrightarrow{OB} - \overrightarrow{OC}) = 0. \text{ Since } OB = OC = OA = R, \text{ then}$$

$$2\overrightarrow{OB} \cdot \overrightarrow{OC} - \overrightarrow{OA} \cdot \overrightarrow{OB} - \overrightarrow{OA} \cdot \overrightarrow{OC} = 0 \text{ or } 2 \sin^2 A = \sin^2 B + \sin^2 C, \text{ which means } 2a^2 = b^2 + c^2.$$

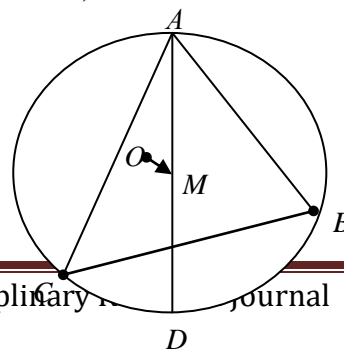
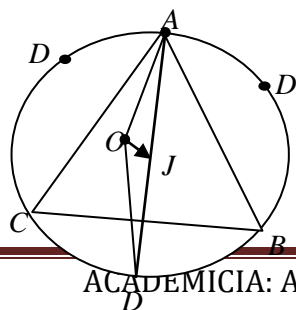


fig. 4.

fig. 5.

4. Given a triangle  $ABC$ . Radii described around the triangle  $ABC$  and inscribed in a circle, respectively, are equal  $R$  and  $r$ . prove that

$$r = 4R \sin \frac{A}{2} \sin \frac{B}{2} \sin \frac{C}{2}$$

Taking into account above proven inequality

$$\sin \frac{A}{2} \cdot \sin \frac{B}{2} \cdot \sin \frac{C}{2} \leq \frac{1}{8}$$

we will get the following inequality

$$r \leq \frac{R}{2} \quad \text{or} \quad R \geq 2r$$

5. In the parallelogram of  $ABCD$  ( $AB = DC$ )  $\angle BAC = \angle ADB$ . To study his properties.

The solution. Let the diagonal parallelogram  $ABCD$  intersect at the point  $O$ ,  $\angle BAC = \angle ADB$  (fig.6).

Then  $\angle ACD = \angle ABD$ , from the similarity of triangles  $AOD$  and  $ADC$ ,  $AO : AD = AD : AC$ ,  $2AO^2 = AD^2$ ,  $AC = \sqrt{2}AD$ . Similar from the similarity of triangles  $ABO$  and  $DBA$  we obtain  $BD = 2\sqrt{AB}$ .

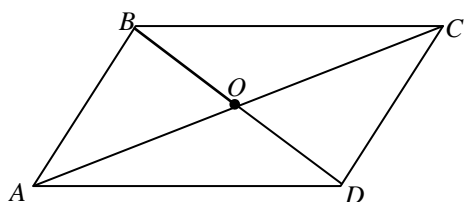


fig. 6.

It is easy to prove the converse: if in a parallelogram  $ABCD$   $AC = \sqrt{2}AD$ , then the triangles  $AOD$  and  $ADC$  are similar and therefore  $\angle ACD = \angle ADO$ .

The results can be formulated as tasks.

- Task 5.1. In the parallelogram  $ABCD$  ( $AB = DC$ )  $\angle BAC = \angle ADB$ . Prove that

$$AC = \sqrt{2}AD, \quad BD = \sqrt{2}AB.$$

- Task 5.2. In the parallelogram  $ABCD$ ,  $AC = \sqrt{2}AD$ . Prove that  $\angle BAC = \angle ADB$ .

We write briefly the obtained properties of the parallelogram  $ABCD$ :

- 1)  $\angle BAC = \angle ADB \Rightarrow AC = \sqrt{2}AD$  and  $BD = \sqrt{2}AB$ ;
- 2)  $AC = AD\sqrt{2} \Rightarrow \angle BAC = \angle ADB$  and  $BD = AB\sqrt{2}$ ;

$$3) BD = \sqrt{2}AB \Rightarrow \angle BAC = \angle ADB \text{ and } AC = \sqrt{2}AD.$$

The other words, we get one more problem.

Task 5.3. In the parallelogram  $ABCD$ , the diagonals are proportional to the sides, i.e.  $AC : AD = BD : AB = "k"$ . What values can " $k$ " take? What could be the attitude of the parties?

The solution. By theorem cosines:

$$BD^2 = AB^2 + AD^2 - 2AB \cdot AD \cos A,$$

$$AC^2 = AB^2 + AD^2 + 2AB \cdot AD \cos A$$

Adding the resulting equalities and replacing  $BD = KAB$  and  $AC = KAD$ , we obtain

$$k^2(AB^2 + AD^2) = 2(AB^2 + AD^2) \Rightarrow k = \sqrt{2}$$

Thus, if in a parallelogram the diagonals are proportional to the sides, then the ratio of the larger diagonal to the larger side (or the ratio of the smaller diagonal to the smaller side) can be only  $\sqrt{2}$ . The condition indicated in task 5.3 is equivalent to each of the conditions considered above.

Let's find the attitude of the sides. We denote  $AD = a$ ,  $AB = b$ . Then  $AC = a\sqrt{2}$  and of the triangle  $ACD$  will have:

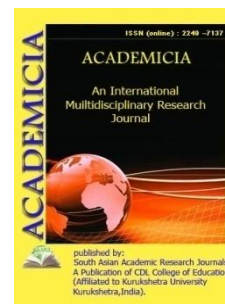
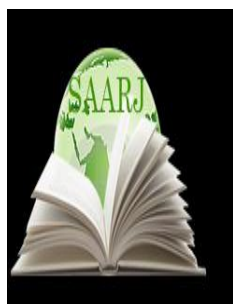
$$a\sqrt{2} - a < b < a + a\sqrt{2}, \text{ or } \sqrt{2} - 1 < \frac{b}{a} < \sqrt{2} + 1.$$

The obtained properties allow us to compose a number of new tasks.

In conclusion, we note that given in article material can be used as an individual jobs for students interested in mathematics.

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## WAYS TO FORM A SENSE OF PATRIOTISM IN THE ELIMINATION OF CRIME

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### ABSTRACT

*The article is devoted to the problem of opportunities to develop a sense of patriotism in employees in the field of crime prevention and public safety. It provides opportunities for the use of innovative pedagogical technologies in the development of a sense of patriotism in employees in the field of crime prevention and public safety.*

**KEYWORDS:** *Crime, Prevention, Public Safety, Innovation, Technology, Patriotism*

### INTRODUCTION

Today, our country is developing on its own path of development. More precisely, the current path of development of our people is based on the four main spiritual foundations developed by the First President Islam Karimov: commitment to universal values, restoration and development of the spiritual heritage of our people, free expression of creative potential and, finally, patriotism. The sense of patriotism is not innate, but it is a spiritual virtue, a spiritual blessing, which is formed as a result of educational work in certain social, economic, political and spiritual conditions, on the basis of certain methods and ways.

The adoption of the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated February 23, 2018 "On approval of the concept of educating young people in the spirit of military patriotism" served to turn our youth into a socially active layer. In addition, the Republic of Uzbekistan for the period 2017-2021 in the direction of the five priority strategies for the development of the "physical, mental and intellectual development, independent thinking, a vital point of view, in spite of Homeland youth, democratic reforms and development of civil society in the process of their social activity" universality based on the principles of natural to give the expected results. Implementation of the Law of the Republic of Uzbekistan "On crime

prevention", "On the prevention of juvenile delinquency and delinquency" to ensure the implementation of the Resolution of the President of the Republic of Uzbekistan dated March 14, 2017 No. PQ-2833 "On crime prevention and fight against crime", to improve individual work with socially vulnerable minors in secondary schools and to establish systematic control in this area a number of measures are being taken. Among these measures: a special place is given to instilling in the minds of young people a sense of pride in their language, religion, history, national values, who are able to put the honor of the motherland above all else. It should be noted that only a patriotic person who can protect the honor of the motherland can make a worthy contribution to the development of Uzbekistan.

Therefore, it is necessary to conduct research to create a pedagogical basis for the development of a sense of patriotism in future employees in the field of crime prevention and public safety. One of a person's most cherished feelings is his or her belief in his or her homeland. Before thinking about belief in the motherland, patriotism, it is necessary to have a full understanding of the meaning and essence of the concepts of "motherland", "patriotism" and "faith".

As for the scientific, pedagogical, philosophical, artistic aspects of the concept of **homeland**, the "Explanatory Dictionary of the Uzbek language" published in 2006 defines the concept of homeland as follows: a country where a person is born and considers himself a citizen; the country, city or village where the person was born and raised; interpreted as accommodation, shelter, abode, home.

"The National Encyclopedia of Uzbekistan" defines the concept of homeland as follows: Homeland - the place of birth, country, country of people; a territory historically belonging to a particular people and a set of its nature, population, specific development, language, culture, way of life and customs. The homeland is as sacred as the mother. A sense of indebtedness to the motherland, responsibility is a characteristic of every mature person. Patriotism is manifested in patriotism.

Our ancient ancestors also considered the soil of the homeland sacred. They fought and shed blood for every old man in the country. It is said that one of Oguzkhan's strongest enemies began to make various demands, seeking various excuses to start a war against him. He first asks her what her favorite horse is. Oguzkhan gives up his favorite horse so as not to shed the blood of the people in vain. In order to aggravate the situation in the middle, the enemy asks the khan a second time to give one of his beloved wives in order to touch the Khan's chin. The leaders of the country's war against the insolent Khan. This time, too, Oguzkhan, who did not want to shed blood in vain, gave up his beloved wife. Finally, the rival king asks for a piece of land belonging to the Oguzkhan state. The elders advise the Khan to give the land to the arrogant king. Then Oguzkhan said: "The homeland is not our property alone. Our fathers lying in the grave and our future generations have rights in this blessed land. No one has the right to give even a penny of land to the motherland" Oguzkhan declares war on the enemy and wins.

Indeed, the homeland is not the property of one person, it is the land of the ancestors of the past, our growing children, the property of future generations; the homeland is the property of each of us living in this country. This means that as long as there is a homeland for the nation on earth, the people's sense of homeland will always be stable at all times.

The turning point in the historical development stage of the influence of patriotism and social development will be bright. In such responsible moments, the fate of the nation depends on how deeply citizens feel their duty and responsibility to the Motherland, the people, independence and the future, as well as their selfless efforts in this direction. In this sense, the rational use of the heritage of our great ancestors, the use of innovative methods of education in inculcating our

traditions and values in the minds of young people will bring effective results in educating our youth in the spirit of patriotism, crime prevention and public safety in future employees.

Patriotism is a scientific and moral depth, legal literacy, a deep sense of duty and responsibility, purity, honesty, devotion, diligence, creative initiative, business, entrepreneurship, honesty, piety, nationalism, humanity, loyalty, loyalty, also includes. Patriotism is the result of practical activity, not theoretical.

An effective factor is the formation of a sense of patriotism in future employees in the field of crime prevention and public safety on the basis of hadiths. It is recommended to use pedagogical technologies in order to increase students' interest in the topic. The method of application of pedagogical technologies for realization of the given purpose is given.

Wheel technology. The given table is divided into 3 columns. In the first column, the hadiths are given in general terms. The given hadiths should be placed according to the content of each column. This technology is implemented in 3 stages.

Step 1. A schedule will be distributed to staff in the field of prevention of future offenses and ensuring public safety. They get acquainted with the table.

Step 2. Future crime prevention and public safety officers will place a separate hadith on each column.

Step 3. The trainees explain the content of each hadith.

Based on this technology, there will be an increase in the activity of employees in the field of crime prevention and public safety, as well as interest in independent work and learning. National pride is also formed on the basis of understanding the content of the hadiths.

Hadiths	About Homeland	About Etiquette	About Books
"Loving one's country is a matter of faith" "Greet one another with a holy kiss. Then love will awaken in you." "He who contributes to good is rewarded with good, and he who contributes to evil is rewarded with evil." "This book is waterproof and can be read both asleep and awake." "Readers, first of all, get to know themselves better."			

Hadiths	About Homeland	About Etiquette	About Books
"Loving one's country is a matter of faith" "Greet one another with a holy kiss. Then love will awaken in you. " "He who contributes to good is rewarded with good, and he who contributes to evil is rewarded with evil." "This book is waterproof and can be read both asleep and awake." "Readers, first of all, get to know themselves better."	"Loving one's country is a matter of faith"	"Greet one another with a holy kiss. Then love will awaken in you. " "He who contributes to good is rewarded with good, and he who contributes to evil is rewarded with evil."	"This book is waterproof and can be read both asleep and awake." "Readers, first of all, get to know themselves better."

"Values" game technology. In some cases, the use of game technology is important, depending on the psychological state of employees in the field of prevention of future offenses and public safety. Therefore, it is advisable to use the game technology "Values". The order and content are as follows:

Each person is given a sheet of paper and given a task based on a hadith about the homeland. For example, "Loving one's country is a matter of faith." The teacher gives an assignment based on this hadith. You read and study the hadith. You give a brief analysis of what the content of the hadith is about. Employees of the field of crime prevention and public safety will talk about "Loving the motherland and its value."

Now imagine that it would be a great loss to be separated from the Motherland, which is so dear and kind as our mother, to be a beggar by joining the lies of some evil people. There are few such people among us.

Now write about who and what such people lost as a result of the loss of the homeland. Read what the future crime prevention and public safety officials have written. Another assignment will be given. You will live in a peaceful and beautiful Motherland, appreciating it and ready for its service. What can you write about this? After writing this assignment, future crime prevention and public safety officers will be asked to compare the two options and choose which one is preferable.

We have seen that the hadith is true: "Loving one's country is a matter of faith." Everyone should love and be proud of their bread and salt Motherland. Because man lives whole in the bosom of his homeland.

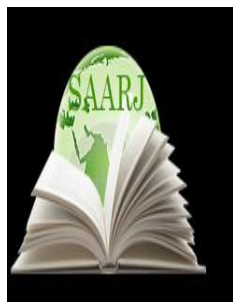
Pedagogical technologies increase the interest of students in the classroom and extracurricular activities, lay the groundwork for achieving goals in education.

Therefore, every employee in the field of crime prevention and public safety strives to be proactive. The ability to think mentally is further improved. Increased focus on training. Will have a personal opinion. He is accustomed to absorbing the habit's and following them.

Love for the Motherland is manifested not in beautiful slogans and lavish speeches, but in the socially practical, useful activity of a person, in his zeal for the development of the Motherland. Demonstrating patriotism means serving our people with respect, appreciation and development by respecting their ancient and rich history, values, cultural and spiritual heritage, traditions and customs, language and culture, religion. Patriotism is based on universal values, deep study of the rich history of our people, the experience of developed countries, enriching them with the achievements of today's social life, the transition to market relations, the rational use of them to strengthen our independence and build a great future state.

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## EASTERN THINKERS 'VIEWS ON THE FORMATION OF MORAL QUALITIES THROUGH NATURE AND ANIMALS IN THE EDUCATION OF PRESCHOOL CHILDREN

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### ABSTRACT

*This article provides information on the formation of moral qualities of Eastern thinkers in the upbringing of preschool children through nature, the environment, the animal world. Improving the educational process should be done on the basis of assessing the level of development of children and their readiness for general primary education, as well as their social, personal, emotional, speech, physical and creative development. The results of our research are described in the great Zoroastrian doctrine "Avesto", which is aimed at solving the problems of education in nature and society, the formation of pedagogical views among the people living in our country three thousand years ago.*

**KEYWORDS:** *Nature, Child, Wildlife, Education, Moral Qualities, Environment.*

### INTRODUCTION

The role of nature in the development, spiritual uplift and moral upbringing of the individual worldwide is incomparable. It is necessary to treat nature with care, to use its resources efficiently, to take care of improving the environment. But the first forms of this work must begin with children of preschool age, which is the smallest link in continuing education. Because during this period, a conscious attitude towards the environment begins to take shape.

For the moral development of a child of preschool age, the family requires the creation of pedagogical conditions that ensure their activities in the organization of preschool education. In particular, to teach children that human life takes place in nature, that man and nature, the environment, including the animal kingdom, are interdependent, that they can interact, and that the positive and negative effects of these influences, thus establishing moral education among

children. awakening feelings of love for mother nature is one of the current pedagogical problems of today.

Creating conditions for the comprehensive intellectual, moral, aesthetic and physical development of preschool children requires a review of the existing order of organization of the educational process in preschool education and the introduction of modern methods of providing preschool education services.

Improving the educational process should be done on the basis of assessing the level of development of children and their readiness for general primary education, as well as their social, personal, emotional, speech, physical and creative development.

The results of our research are described in the great Zoroastrian doctrine "Avesto", which is aimed at solving the problems of education in nature and society, the formation of pedagogical views among the people living in our country three thousand years ago.

Islamic teachings also pay special attention to the animal world.

In many verses of the Qur'an, Muslims are explained in detail why God created the animal kingdom, its purpose, and how to treat them. It is explained in the Qur'an that it is the duty of every Muslim to take care of the animal world, not to destroy it, to feed, water and care for it. This divine book describes how man can benefit from the animal world, how to raise animals.

The teachings that it is man's duty to respect the animal world are reflected in the teachings of the great scholars who grew up in Turkestan. Scholars in their time have written rich information about the use of animals, the events associated with them.

In particular, Abu Nasr al-Farabi in his book "The City of Noble People" said, "The essence of man is known in the mind, the essence of the mind is known in morality and behavior."

Abu Nasr al-Farabi describes the characteristics of human morality as follows:

1. All the members of such a person must be so perfectly developed that he can easily carry out all the work he intends to do with these members;
2. Let him who loves the truth and the followers of the truth, let him hate lies and liars;
3. Let him appreciate the group and conscience of his soul, and let his spirit, by its very nature, work for high and noble deeds in low deeds.

Abu Nasr al-Farabi means moral qualities such as knowledge, wisdom and prudence, conscientiousness, truthfulness, striving for spiritual heights, and justice.

Abu Nasr al-Farabi views the concept of morality as an ethic based on reason, inextricably linked with reason. Farabi shows that morality can be interpreted not only as an expression of moral norms, but also as a result of people's mental activity.

Abu Nasr al-Farabi says that beautiful qualities in a person are created in two ways, through education and upbringing.

"The training combines theoretical qualities, of the inherent nature of theoretical knowledge and practical combines the professional and moral qualities. Education, training is carried out with practical work experience, he said. When the two come together, there is maturity, but it shows that maturity depends on the level of practical skills learned."

Abu Nasr Farabi lot of research into the period, as well as the nature of teaching and learning resources to be living in a society abound merciful ukabi special attention to the ideas. In the 10th chapter of the City of Noble People, "Nature and the natural foundations are not sufficient for the moderate conditions of animals and plants.... Nature itself is the essence of every individual jewel."

Preserving nature with this. He evaluates man as a chief reformer about not artificializing it. Based on the above considerations, it should be noted that children from an early age should be caring and responsible for nature and wildlife.

Abu Rayhan Beruni connects education with moral education. After all, the criterion of perfection in man is morality.

Beruni emphasizes the important role of moral education in human development in his works "Monuments of ancient peoples", "India", "Mineralogy", "Kitab as-saidana", "Al-Qanuni al-Masudi", "Geodesy".

According to Beruni, morality should be the most basic quality of a person. This quality is formed in the process of human interaction, social environment and social development.

Abu Rayhan Beruni says: Morality is manifested and formed as a result of the struggle between good and evil. Good and evil are used as criteria that determine a person's behavior.

The scholar promotes goodness, righteousness, justice, generosity, nobility, friendship and cooperation, labor and profession, purity, kindness, and the pursuit of goodness as signs of morality. In Mineralogy, Beruni says: "Gentleness, compassion, perseverance, patience and humility adorn a person."

These ideas of Beruni are of great importance in improving the current educational work.

In Ibn Sina's At-Shifa, Kitab an Nabot and Kitab al-Haywan, the importance of nature and the animal kingdom in ensuring the harmony of material and spiritual life is emphasized. In his book Kitab al-Haywan, Ibn Sina divided the animals in nature into four groups and encouraged them to show compassion for living conditions, reproduction, anatomical and physiological structure, and human beings:

1. Four-limbed animals.
2. Birds.
3. Insects.
4. Aquatic animals.

He describes ignorance of animals as knowledge, ignorance as sharpness, cruelty, arrogance as justice, and hatred as the opposite of love.

Humans have a very important responsibility to protect nature, to prevent the extinction of rare plants and animals. Nature has suffered greatly from the cruelty, cruelty, and injustice in man, and has become a stranger, deprived of much of what he needs. Deer have violated nature's law of goodness by destroying whales and sharks, tigers and lions, elephants, zebras, algae and rabbits, boars, hawks and sparrows.

The end of the twentieth century, the beginning of the twenty-first century, showed man's unkindness to nature, not his love. It is necessary to educate people in the spirit of love and care for nature in order to respect nature, prevent its disease and protect it.

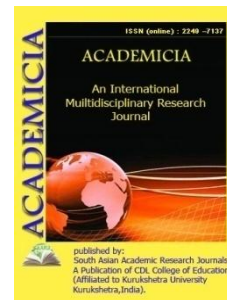
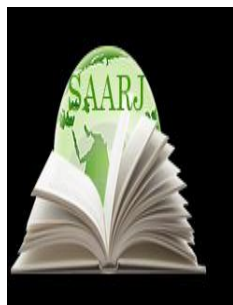
Much depends on how a person is brought up. If a person has felt since childhood that breaking branches, fruit trees, crushing seedlings, killing birds, and destroying living things are extremely harmful to nature, man, and society, then it is important. will be incredibly large.

Nature, environmental protection, the most direct way to improve the quality of people's moral, spiritual factors strengthening the development of the society. Every parent should decide to teach their children to respect plants and animals on the basis of conscience, faith and high spirituality.

Special attention should be paid to moral education, starting from the family, from kindergarten. Children need to know that if they are treated with indifference to nature from infancy, if they kill birds, if they torture animals, if they pollute and waste water, if they pollute the atmosphere with various toxic gases and dust, it can lead to serious consequences.

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## **BIOECOLOGICAL PROPERTIES OF NEMATODES OF THE SUB-ORDER FILARIAT SKRJABINI, 1915 - MAMMAL PARASITES IN VARIOUS BIOCENOSES OF UZBEKISTAN**

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### **ABSTRACT**

*This article reveals the many year's results of research and literature data on the fauna and bioecological features of filariat - parasites of mammals in various biocenoses of Uzbekistan. In mammals of Uzbekistan, 23 species of filariat were found belonging to 9 genera - Onchocerca, Dipetalonema, Dirofilaria, Litomosa, Parafilaria, Skrjabinodera, Micipsella, Setaria, Stephanofilaria and 5 families - Filariidae, Dipetalonemidae, Onchoceridae and Stephanarii. As the results of research show, among invertebrates, a significant role as intermediate hosts for mammalian filariat belongs to blood-sucking dipterans, related to the genera Lyperosia, Stomoxys, Haematobia, Aedes, Culex, Culicoides, Simulium, Anopheles, Odagmia, Friesia, which are closely related to mammals. The areas of the noted dipterans in all cases overlap the areas of the corresponding helminthes and practically coincide with the areas of mammals - the final hosts. This indicates that the causative agents of helminthiasis such as onchocerciasis, setariosis, stefanofilariasis, parafilariasis, dipetalonemia, and dirofilariasis have the potential opportunity to expand their areas. The presented materials have important scientific and practical value for the development of rational measures for the prevention of filariasis in productive animals, the pathogens of which develop with the participation of various invertebrates.*

**KEYWORDS:** *Fauna, Helminth, Area, Epizootology, Biocenosis, Filariat, Epizootic, Larvae, Parasite, Nematode.*

## INTRODUCTION

**Actuality of the topic:** It is clear that only on the basis of accurate knowledge of the life cycles of helminths, it is possible to find rational measures of active intervention in the epizootic process, as well as to find ways to disrupt individual links of the epizootic chain in order to quickly and sharply suppress the parasite population and to eliminate the focus of the disease.

Consequently, to study of the bioecological characteristics of parasitic worms in specific regions is not only of deep theoretical interest, but also of great practical importance, being the basis for the development of measures for the control and prevention of numerous parasitic diseases that sharply reducing the productivity of animals in the livestock sector. In this regard, nematodes of the suborder *Filariat Skrjabin*, 1915 are played special attention, most of the species are serious mammalian pathogens.

*Filariats are spread in mammals, in all continents of the world* (Anderson, 2000; Araujo, 1996; Bidgood, Collins, 1996; Bur, Brown, Eberhard, 1998; Fujii, Hajashi, Ishimoto et al., 1995; Gibbons, Zakrisson, Uggla, 2000; Harrus, Harmelin, Rodrig, Favia, 1999; Ijncel, Vural, 2005; Jafari, Gaur, Khaksar, 1995; Lai, James, 1996; Mar, Fei, 1995; Pampiglione, Rivasi, Angeli et al., 2001; Pietrobelli, Cancrina et al., 1998; Wang, Tung et al., 2005; Wee, Hwan et al., 1996) [25,26,27,28,29,30,31,32,33,34,35,36,37,38,39].

In the CIS countries, filariasis of mammals is also quite widespread (Gnedina, 1940; Ivashkin, Khromova, Shmytova, 1965; Osipov, 1966; Rukhlyadev, 1964; Kadenatsii, 1971, etc.) [4,9,12,15,17,]. At the same time, mammalian filariats are relatively well studied in Russian Federation. This is due to the great work of M.D. Sonin, who was engaged for a long time in the generalization of data on filariats of birds and mammals of the CIS countries (Sonin, 1971, 1975, 1977) [22].

Despite the presence of numerous publications on helminths and helminthiases, including filariasis of mammals in Uzbekistan, this group is the animal parasites, admittedly, belongs to poorly studied and it cannot fully reflect the current state of infection of animals with filariats in the ecosystems of the Republic (Bogdanov, Vladimirov, 1956; Golovanov, 1973; Sultanov, Azimov et al., 1975; Tokobaev, 1976; Dadayev, 1978, 1997; Matchanov, Dadayev et al., 1984; Saparov, Golovanov, Dadayev et al., 2011; Azimov, Dadayev, Akramova, Saparov, 2015, etc.) [3,5,23,24,6,7,14,18,2].

Proceeding from this, studying of the bioecological characteristics of filariat - parasites of mammals in various biocenosis of Uzbekistan is of great theoretical and practical importance.

**The purpose of the research** is to analyze the results of our long-term research and literature data on the study of the fauna and bioecological properties of filariat - parasites of mammals in various biocenoses of Uzbekistan.

**The objects of research** are nematodes, filariats - parasites of mammals of Uzbekistan, insects - intermediate hosts of parasites.

**The subject of the research** is the fauna, properties of biology and ecology of nematodes of the suborder Filariat - parasites of mammals of the terrestrial ecosystems of Uzbekistan.

## MATERIAL AND RESEARCH METHODS OF FILARIAT

This work is based on the materials of field and experimental research, carried out over many years (1978-2018) in the laboratory of parasitology of the Institute of Zoology of the Academy of Sciences of the Republic of Uzbekistan and at the department of Zoology and Anatomy of Tashkent state pedagogical university named after Nizami.

As material of field and experimental studies we used mammals, also insects - the intermediate hosts of the studied filariat. In the process of work, using the indicated methods, more than 1627 copies of mammals were examined.

Also, studies were carried out on biopsied skins, infected with filariat of domestic animals (cattle, horses) - 350 samples according to known methods (Gnedina, 1940) [4].

Parasitological material from domestic and wild mammals was collected in various biocenoses of Uzbekistan. Wild animals were hunted by professional hunters during the hunting season, and domestic animals were examined at meat-packing combines (small department of preparing the meat) and slaughterhouses in Andijan, Namangan, Fergana, Samarkand, Jizzakh, Syrdarya, Tashkent, Bukhara, Navoi, Kashkadarya, Surkhandarya, Khorazm regions and in the Republic of Karakalpakstan. The degree of infection of mammals with filariats was established by complete and incomplete helminthological dissections of animals, as well as of their individual organs according to the method of K.I. Scriabin (1928) [19]. The discovered nematodes of the suborder under consideration were fixed in Barbagallo's liquid, and in some cases in 70% alcohol. Under treating of filariat species, we used lactic acid and glycerol.

In the life cycles of considered filariat, various groups of insects participate, acting as intermediate hosts.

In places of concentration of mammals (domestic and wild), 31,477 samples of insects were collected and studied (blood-sucking dipterans) from different zones in spring, summer and autumn in order to identify their infestation by larvae (microfilariae) of filariat according to the methods of E.N. Pavlovskaya (1957), Agrinsky (1962), S.L. Lazarevskaya (1962), T.K. Kabilova (1983) [16,1,13,11].

We used the usual entomological methods to collect insects. The detected nematode larvae were fixed in 1.5-2.0% formalin.

## RESULTS AND DISCUSSION

According to the latest data, more than 105 species and subspecies of mammals of wild fauna have been registered on the territory of Uzbekistan. In addition, 12 species of mammals are bred in our country, belonging to the orders of lagomorphs (rabbits), rodents (nutria), predatory (dog, cat), equid-hoofed animals (horse, donkey), artiodactyls (sheep, goat, cattle, pig) and calluses (one-humped and two-humped camels). A significant number of mammalian species, as shown by the results of studies, they were invaded by representatives of nematodes of the suborder filariat (Table 1).

**TAB.1.**  
**Fauna filariat of mammals of Uzbekistan**

Species	Hosts						
	Chiroptera	Lagomorphs	Rodents	Carnivores	Perissodactyla	Artiodactyls	Callus
<b><i>Filariidae</i> (Cobbold, 1879)</b>							
1. <i>Parafilaria multipapillosa</i> (Condamine et Dzouilly, 1878)	-	-	-	-	+	-	-
2. <i>P. antipini</i> Ruchliadev, 1947	-	-	-	-	-	+	-
3. <i>P. bovicola</i> Tubangui, 1934	-	-	-	-	-	+	-
4. <i>Dirofilaria immitis</i> (Leidy, 1865)	-	-	-	+	-	-	-
5. <i>D. repens</i> Railliet et Henry, 1911	-	-	-	+	-	-	-
<b><i>Dipetalonemidae</i> Wehr, 1935</b>							
6. <i>Dipetalonema vitae</i> (Krepkogorskaya, 1933)	-	-	+	-	-	-	-
7. <i>D. evansi</i> (Lewis, 1882)	-	-	-	-	-	-	+
<b><i>Onchocercidae</i> (Leiper, 1911)</b>							
8. <i>Onchocerca reticulata</i> Diesing, 1841	-	-	-	-	+	-	-
9. <i>O. cervicalis</i> Railliet et Henry, 1910	-	-	-	-	+	-	-
10. <i>O. caprae</i> (Linstow, 1883)	-	-	-	-	-	+	-
11. <i>O. lienalis</i> (Stiles, 1892)	-	-	-	-	-	+	-
12. <i>O. fasciata</i> Railliet et Henry, 1910	-	-	-	-	-	-	+
13. <i>Litomosa dogieli</i> Bogdanov et Vladimirov, 1956	+	-	-	-	-	-	-
14. <i>L. skarbilovitchi</i> Petrov et Tschertkova, 1954	+	-	-	-	-	-	-
15. <i>Skrjabinodera saiga</i> Gnedina et Vsevolodov, 1947	-	-	-	-	-	+	-
16. <i>Micipsella numidica</i> (Seurat, 1917)	-	+	-	-	-	-	-
<b><i>Setariidae</i> Skrjabin et Schikhobalowa, 1945</b>							
17. <i>Setaria equina</i> (Abildgaard, 1789)	-	-	-	-	+	-	-

18. <i>S. bernardi</i> Railliet et Henry, 1911	-	-	-	-	-	+	-
19. <i>S. digitata</i> (Linstow, 1906)	-	-	-	-	+	+	-
20. <i>S. labiatopapillosa</i> (Alessandrini, 1848)	-	-	-	-	+	+	+
21. <i>S. cervi</i> (Rudolphi, 1819)	-	-	-	-	-	+	-
<b><i>Stephanofilariidae</i> Wehr, 1935</b>							
22. <i>Stephanofilaria stilesi</i> Chitwood, 1934	-	-	-	-	-	+	-
23. <i>S. assamensis</i> Pande, 1936	-	-	-	-	-	+	-
<b>Total</b>	2	1	1	2	6	11	3

In mammals of Uzbekistan, 23 species of filariat were found belonging to 9 genera - *Onchocerca*, *Dipetalonema*, *Dirofilaria*, *Litomosa*, *Parafilaria*, *Skrjabinodera*, *Micipsella*, *Setaria*, *Stephanofilaria* and they involve 5 families - *Filariidae*, *Dipetalonemidae*, *Onchocercidae* and *Setofilariidae*.

The existing ecological links of filariat with mammals and invertebrates - hosts, ultimately ensure the functioning of the system “filariats - blood-sucking arthropods - mammals” and the circulation of invasion in nature. All representatives of the suborder *Filariat* of mammals of Uzbekistan are heteroxenous forms that their development proceeds with the participation of intermediate hosts. The developmental cycles of these nematodes are quite clearly different and can be an example of different types of development characteristic of filariat. The main differences in life cycles are that some groups of species - females - viviparous (larvae - microfilaria), their intermediate hosts are blood-sucking arthropods, the infection of mammals - the final hosts occur when a bloodsucker is a carrier. In other groups, females are oviparous (species of the genus *Stephanofilaria*), the intermediate hosts of their flies of liperosia are infected by swallowing eggs with formed larvae of stephanofilaria from the skin, the infection of the final hosts occurs when were attacked (bite) by a bloodsucker - the carrier. In both types of filarial development, infection of the final host occurs in an active way.

Representatives of *Diptera* are important components of biogeocenoses. They have mastered various landscapes in Uzbekistan as well. There are many mammals among dipterans and blood-sucking parasites of vertebrates. The role of representatives of various taxonomic groups in the transfer of larvae (microfilariae) of filariat is not the same. In this context, we are interested in blood-sucking dipterans of the following families: flies - *Muscidae*, mosquitoes - *Culicidae*, midges - *Simuliidae*, biting midges - *Ceratopogonidae*, mosquitoes - *Phlebotomidae*, some representatives turned out to be intermediate hosts of filariat of the mammalian fauna of Uzbekistan. Most commonly carriers of filariat were registered as *Muscidae* family and mosquitoes - *Culicidae* (Table 2).

**Tab.2.**  
**Diptera - intermediate hosts of filarial mammals of Uzbekistan**

Insect species	Opened, individuals	Infected by parasite larvae		
		Number	%	Species filariae
Order - <i>Diptera</i>				
Fly family - <i>Musidae</i> :				
<i>Lyperosia irritans</i>	5639	152	2.6	<i>Stephanofilaria assamensis</i> Pande, 1936 <i>S. stilesi</i> Chitwood, 1934
<i>L. titillans</i>	1010	21	2.7	<i>S. assamensis</i> Pande, 1936
<i>Haematobia atripalpis</i>	168	1	0.5	<i>Parafilaria multipapillosa</i> (Gondamine et Dzouilly, 1878)
<i>Haematobia atripalpis</i>	168	1	0.5	<i>S. assamensis</i> Pande, 1936
<i>Stomoxys calcitrans</i>	989	7	0.7	<i>S. stilesi</i> Chitwood, 1934
		8	0.9	<i>Setaria sp.</i>
Family Mosquitoes – Culicidae				
<i>Culex pipiens</i>	867	3	0.3	<i>Setaria sp.</i>
<i>Culex pipiens</i>	968	4	0.3	<i>Dirofilaria sp.</i>
<i>Aedes caspius</i>	2336	7	0.3	<i>Setaria labiato-papillosa</i> (Alessandrini, 1848)
	2030	7	0.7	<i>Dirofilaria immitis</i> (Leidy,1865)
	1720	13	0.7	<i>Dipetalonema evansi</i> (Lewis, 1882)
<i>Anopheles superpictus</i>	194	2	1.0	<i>Dirofilaria repens</i> Railliet et Henry, 1911
<i>A. maculipennis</i>	595	7	1.2	<i>Setaria equina</i> (Abildgaard, 1789)
Family Moshki - Simuliidae:				
<i>Simulium flavidum</i>	109	1	0.9	<i>Onchocerca sp.</i>
<i>Odagmia ornata</i>	7940	379	4.8	<i>O. lienalis</i> (Stiles, 1892)
<i>Freesia alajensis</i>	5824	237	4.0	<i>O. lienalis</i> (Stiles, 1892)

Family Biting - Ceratopogonidae:				
<i>Culicoides puncticollis</i>	920	2	0.2	<i>Onchocerca cervicalis</i> Railliet et Henry, 1910

In the blood-sucking *Muscidae*, the larvae of filarial of four species belonging to different genera and families were noted and parasitize in the mature phase, only in mammals of the orders of artiodactyls and equids.

The overwhelming majority of species of filarial larvae belong to nematodes, the mature forms of which are parasites of mammalian orders - carnivorous, artiodactyls, equids and callus-legged (Table 3).

**TAB.3.**  
**BIOLOGICAL CHARACTERISTICS OF FILARIAT – PARASITES OF MAMMALS OF UZBEKISTAN**

Filariasis	Causative agents	Carriers	Vertebrate hosts
<i>Parafilariasis</i>	<i>Parafilaria multipapillosa</i>	<i>Haematobia atripalpis</i>	Horse
<i>Dirofilariasis</i>	<i>Dirofilaria immitis</i>	<i>Culex pipiens</i> , <i>Aedes caspius</i>	Dog
<i>Dirofilariasis</i>	<i>D. repens</i>	<i>Anopheles superpictus</i>	Dog
<i>Onchocerciasis</i>	<i>Onchocerca cervicalis</i>	<i>Culicoides puncticollis</i>	Horse
<i>Onchocerciasis</i>	<i>O. lienalis</i>	<i>Simulium flavidum</i> , <i>Odagmia ornata</i> , <i>Friesia olajensis</i>	Cattle
<i>Dipetalonemia</i>	<i>Dipetalonema evansi</i>	<i>Aedes caspius</i>	Camel
<i>Setariosis</i>	<i>Setaria equina</i>	<i>Anopheles maculipennis</i>	Horse
<i>Setariosis</i>	<i>Setaria labiatopapillosa</i>	<i>Stomoxys calcitrans</i> , <i>Aedes caspius</i>	Cattle
<i>Stephanofilariasis</i>	<i>Stephanofilaria assamensis</i>	<i>Haematobia atripalpis</i> , <i>Lyperosia irritans</i> , <i>L. titillans</i>	Cattle
<i>Stephanofilariasis</i>	<i>Stephanofilaria stilesi</i>	<i>Lyperosia irritans</i> , <i>L. titillans</i> , <i>Stomoxys calcitrans</i>	Cattle

Midges of the genera *Simulium*, *Odagmia*, and *Friesia* are registered as intermediate hosts for mammalian filariat (*Onchocerca lienalis*). Biting midges (*Ceratopogonidae*) were also noted by us as intermediate hosts for mammalian filariat. The participation of biting midges in the life cycles of filariat is represented by species of the genus *Culicoides*. Larvae of *Onchocerca cervicalis* were found in *Culicoides puncticollis*.

Consequently, the number of *Diptera* species - intermediate hosts of filariat in Uzbekistan does not exceed 18-20 species and they belong to the genera *Musca*, *Lyperosia*, *Stomoxys*,

*Haematobia, Aedes, Culex, Culicoides, Simulium, Anopheles, Odagmia, Friesia*, and etc. They are closely related with productive animals. Most of them give several generations annually, reach a high number and are confined to certain natural zones. The areas of the noted diptera insects in all cases overlap the areas of the corresponding helminths and practically coincide with the areas of farm animals - the final hosts.

Thus, the intermediate host simultaneously performs the dispersal function of the parasite. The specialization of blood-sucking dipterans to definitive hosts and the peculiarities of their ecology ensures the formation and functioning of parasitic systems. Moreover, dipteran bloodsuckers, on the origin of their ectoparasitism are associated with vertebrates, mainly mammals. Obviously, the activity and migration abilities of careers contribute to the expansion of the area of invasion, caused by filariat in specific geographic zones.

Based on the above, the epizootic process in filariasis, we consider as a dynamic system subject to significant changes. The epizootic chain includes - the source of the pathogen, transmission mechanisms and a susceptible animal. The interaction of these elements occurs under certain conditions of the external environment, which includes both biotic and abiotic components. The latter, affecting the links of the epizootic chain, it slows down or accelerate the course of the epizootic process.

Consequently, a strategy for combating filariasis should be aimed at reducing the risk of infection in animals by regulating the population of careers; deworming of sick animals - a source of invasion; creation of effective drugs - anthelmintics with a specific action against filarial; improving the organizational structure of the antiepzootic service; strict implementation of veterinary and sanitary standards in livestock sector farms and improvement of the environment from pathogens.

## CONCLUSION

Filariates are a very large group of nematodes that have adapted to parasitism in a wide range of vertebrate hosts. They are found in animals of four classes - amphibians, reptiles, birds and mammals.

Localization outside of the digestive tract is characteristic for filariat. By characterizing the nematodes under consideration from this point of view, it should be noted the diversity of their parasitic sites in the host vertebrate organism. Most of the mammalian filarial species have adapted to localization in organs that do not communicate with the external environment. And in this respect, filariats also differ from other suborders of nematodes.

In mammals of Uzbekistan, 23 species have been found belonging to 9 genera - *Onchocerca*, *Dipetalonema*, *Dirofilaria*, *Litomosa*, *Parafilaria*, *Skrjabinodera*, *Micipsella*, *Setaria*, *Stephanofilaria* and 5 families - *Filariidae*, *Dipetalonemidae*, *Onchocercidae*, *Setariidae* and *Stephanidae*.

The areas of the noted diptera insects in all cases overlap the ranges of the corresponding helminths and practically coincide with the ranges of mammals - the final hosts. This indicates that the causative agents of helminthiases such as onchocerciasis, setariosis, stefanofilariasis, parafilariasis, dipetalonemia, dirofilariasis and other helminthiases have the potential to expand their ranges.

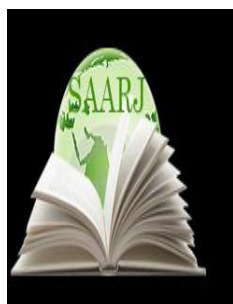
The presented materials are of great scientific and practical importance for the development of rational measures for the prevention of helminthiasis in productive animals, the pathogens of which develop with the participation of various invertebrates.

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## WORKING ON WORDS MEANING IN THE SPEECH OF KARAKALPAK LANGUAGE IN PRIMARY SCHOOL STUDENTS

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### ABSTRACT

*This article presents the scientific and theoretical views on the issue of speech development in primary school students in Karakalpak classrooms. For example, it is possible to learn the language and its rules by developing speech. In particular, it was noted that the use of texts, descriptions, color-image methods of a recommendatory nature in the development of speech in primary school students can have a significant effect. Speech development is guided by the care of the child's psyche and mindset. He commented on poetic or descriptive text forms, pronunciation rules, and correct spelling rules.*

**KEYWORDS:** *Speech, Text, Lexeme, Poem, Compound, Phrase, Statement, Pronunciation, Image, Imagination, Mindset.*

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### INTRODUCTION

It is known that each word has its own field of meaning. It is necessary to pay serious attention to which word belongs to which category and to which group it belongs. It is especially important for the teacher to pay attention to the meanings of the words when developing the speech of primary school students. These are important factors in the development of the student's speaking skills and the harmonious development of language and thinking in them. The unit of speech consists of a set of words. Because every word becomes important in the form of a spiritual layer and is revived in the imagination of the reader. Meaning and content can occur as an extremely deep component in the structure of a text that seems very simple at first glance. This indicates that language is a social phenomenon, that it is consumed on the basis of a certain need.

## THE MAIN FINDINGS AND RESULTS

For example, when teaching the following words, the teacher first forms the child's imagination. He feels the meaning of the word with contemplative thinking: repeats words like *kalla* - head, *yuz* - face, *yurak* - heart, *tish* - tooth, *til* - tongue, *ko'z* - eye, *qo'l* - arm, *bosh* - head, *oyoq* - foot, *burun* - nose, *bo'g'in* - joint, *bigin*, *tos*, *soch* - hair, *qo'l'tiq* - seat, *elka* - elbow, *qosh* - eyebrow, *quloq* - ear, *barmoq* - finger. Their vocabulary grows. This creates a certain skill in the students. So, if you learn an average of 5-10 words a day, you will know what at least 6-7 words mean. The meaning of the word - apple, type of fruit. An apple means not moving anything. An apple means not buying anything. The eye is the organ of human vision, the eye is the eye of the window, and the eye is the eye of the needle, and so on.

It should be noted that almost all students work with a dictionary when teaching Uzbek in primary school, especially in Karakalpak classes. Dictionaries are given in the textbooks. Alternative variants of words are given. On this basis, they perform tasks given in the form of word sentence, word sentence, word text.

It is worth noting that another important aspect of speech cultivation is that they repeat the names of places, animals, and specific areas. Children live with an interest in the wonders of nature. By feeling them, the mental potential increases. The world is enjoying an event that seems so simple at first glance. In the same way, they sharpen their speaking, pronunciation, and word-writing skills. Unless there is a clear friendly contact between the teacher and the student, it will be difficult to achieve the intended goal.

In order to further strengthen the art, to make the story interesting and to attract the attention of the audience, the creators, such as *sher* - lions, *tuya* - camels, *bo'ri* - wolves, *etik* - boots, *ilon* - snakes, *lochin* - falcons, *kaptar* - pigeons, *tarlans*, *vultures*, *tulki* - foxes, *qaldirg'och* - sparrows, *echki* - goats, *ot* - horses, *qarg'a* - crows, *bulbul* - nightingales, *salt marshes*, animals as a means of artistic expression on behalf of domestic and wild animals, various birds and animals "1. It is in this process that students can be taught what a creature is by pronouncing these words correctly. Because when a child hears names with negative connotations, it is natural for them to have some kind of contradictory perception of that creature. Just as children are afraid of the dark, they will no doubt tremble when they hear the names of wild beasts. This is directly related to the sharpness of the pedagogical competence of the student, the methodological armament, the height of knowledge and thinking.

It is also possible to develop a child's speech by composing concise texts using the color-picture method during the lesson. For example, when creating an image related to winter or spring, the season is hung on a board or shown in a video. Over a period of time, students compose sentences using words to describe the impression they get from the image shown. "O'lkamizga Zumradqishtashrif buyurmoqda. Qishning zavqio'zgacha. Biz mazzaqilib Qorboboyasaymiz. Chang'iuchamiz. Oppoqqorning zavqinishe'rga, qo'shiqqa aylantiramiz- Emerald winter is visiting our country. The pleasure of winter is special. We make a delicious Christmas. We ski. We turn the pleasure of white snow into a poem, a song " at first glance, this may seem like a simple situation. From word to word - students in the Karakalpak group to learn the difference - understand what an emerald winter is. It is not difficult to understand what such words reflect in the text, which is also written about spring.

In the primary school students of Karakalpak groups is to teach students how to group spiritually through text and narration. These are classified as follows:

- 1) *The teacher should be able to teach students at least 5-7 words every day through text analysis;*
- 2) *It is advisable to use poetic texts effectively when working on the meanings of words;*
- 3) *It is also possible to influence the mindset by reading and broadcasting the text in the narrative method;*
- 4) *The color-image method is also an easy way to achieve the desired result;*
- 5) *Memorizing at least ten words in a short story is also the best way to improve your speech;*
- 6) *The names of years and seasons, and small poetic writings about historical figures, also play an important role in the knowledge of the word and its spiritual layer;*
- 7) *It is possible to sharpen a student's spoken pronunciation through retelling and expression.*

It should be noted that "phrases equal to a phrase consist of two or more members and represent a single lexical meaning in the text. According to the lexical-grammatical feature, both types of phrases perform the same methodological function in the text, the "basic reality in the speech of the epic heroes" further enhances the reader's imagination. Hence, the fact that reality is an aspect related to how it is expressed also develops the child's imagination. Curiosity and desire, aspiration and dream, great innocence are one of the most important aspects of developing a child's imagination, mindset. Uzbek (State language) can be approached from the State Education Standard and from a specific territorial area. For example, about 70% of Karakalpakstan is desert. In this process, it is necessary to compose a text based on mental characteristics in order to be understandable to students. Only then does the child strive with immense love by seeing and hearing the events that surround him. Begins to learn words. He tries to memorize words when necessary and use them in his daily life. This is the most optimal way in the education system that the teacher only wins in the process.

Another important aspect of speech development in the education system today is tradition. This is a statistical method. The teacher composes the text clearly and depending on what is available. The most important aspect of developing connected speech is also connected to this process. For example, a reader may have some difficulty in recognizing multiple equivalents of a word. "So what are the advantages of the statistical method? The advent of computer technology in the analysis of text statistics today can be said to be a unique revolution in linguistic research. This makes it very convenient in text analysis. Citing facts and comparative analysis of the frequency of occurrence of a particular language unit in the text, on the one hand, gives a clear idea of the use of the language unit in the whole text, which is the object of analysis "(G. Jumanazarova). Indeed, in composing a text, Methodist scholars should not ignore the question of what are the primary important aspects for the reader.

These will inevitably be of a recommendatory nature as follows:

- a) *composing a text with the help of stories, legends, fairy tales about folklore in accordance with the age of the child;*
- b) *composing descriptive texts aimed at developing speech related to the names of the seasons;*

*c) composing texts aimed at nurturing the psyche and mindset;*

*g) compose a text related to the formation of speaking skills by teaching correct pronunciation.*

It is these aspects that make the text widely available for any purpose. Another important aspect of speech development is that the poetic text is also very helpful in it. In particular, the interest in nature and animal phenomena in the eyes of primary school students paves the way for the awakening of very strong emotions.

Radical changes in social life are also reflected in children's literature. Problems that have been overlooked by our writers to this day have also begun to be addressed. In particular, the depiction of human suffering, the complexity of some of the contradictions in the lives of children, the attempts to interpret the complex world events of hard-hearted people with courage and insight, indicate the novelty of the subject and interpretation [1, 2016]. Consequently, the children of New Uzbekistan, who have appeared in the world today, amaze many with their knowledge, intelligence, aspiration and unique abilities. For them, the fact that our state is carrying out large-scale reforms is a clear proof of our opinion.

Let's pay attention to the following poem of the poet "Giraffe": the unexpected situation in the poem is noteworthy, as it is aimed at the expansion of the child's imagination, the development of aspirations:

*Yaxshiyambo'yniuzun,  
Ungaasqotarjuda.  
Ayniqsa, darsmahali –  
Misolechishvaqtida.  
(Anyway, long neck,  
It's too loose.  
Especially during class -  
At the time of solving the example.)  
Chunki u engortdagi  
Birpartadao'tirar.  
Bo'yninicho'zib, asta  
Chumolidanko'chirar[2, 2013].  
(Because he is the most backward  
He sits at a desk.  
Slowly, stretching his neck  
Moves from an ant).*

The poetic image in this poem is that the laziness of the giraffe is more pronounced when it is enough to "stretch its neck". The general spirit of the poem, the pathos, is so clear, concise, concise and holistic that its ending in the form of "copying from the ant" is measured by the

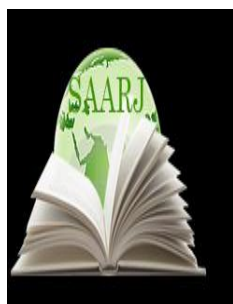
diligence of the "ant", the reflection of his aspirations in the images. It should be noted that the ant's livelihood due to its tireless work emphasizes a different mood in the child's psyche, that is, the importance of constant research, work, work on himself. The desire to work in the heart of a child who reads this is encouraging.

## CONCLUSION

In general, our comments of the above recommendatory nature do not lose their place in the development of speech of primary school students in Karakalpak groups. Because the most important aspect of child rearing is to form in them a sense of patriotism through correct writing, correct pronunciation, correct interpretation of the word and its spiritual aspects. On the one hand, it is necessary to take into account that today language has moved from theory to practice, that is, to a new stage. The basis of every interpretation and image is to perfect the pronunciation style, while the second domain is to cultivate the mindset. Thematic aspects also raise the child's psyche, strengthen the love of parents and the Motherland, and serve to form the ability to feel the word and its meaning in the development of a perfect person. The result is either poetic or descriptive. Forms of oral text enrich the taste and aesthetics of the reader and are an important factor in paving the way for the education of the world of sophistication.

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## **MONEY SUPPLY AND ITS IMPACT ON EXCHANGE RATE DURING 1980 – 2011 IN NIGERIA**

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### **ABSTRACT**

*The paper examines the impact of money supply in determining the exchange rate of the currency with respect to fixed and flexible exchange rate policies in Nigeria. Time series data, sourced from Central Bank of Nigeria (CBN) was used. Money supply (MS) was decomposed to include Narrow Money Supply ( $M_1$ ), Quasi money ( $Q_m$ ) and Broad Money Supply ( $M_2$ ). Econometric analysis based on the least squares procedure was conducted using E-View Version 7. Descriptive analysis was also carried out. It was found from the study that periods of floating exchange rate policy have influenced exchange rate positively even to a great extent and that quasi money showed a negative and significant sign on exchange rate, while narrow money exhibits a positive sign. Broad money supply indicates that expansionary monetary policy tends to diminish the Naira/ Dollar value. It is therefore recommended among others, that the Nigerian financial market in general and money market in particular should be strengthened in both depth and breadth. The available money outside the banking system should be properly channelled for productive purposes in order to achieve the desired stability in the naira exchange rate and by extension growth in the Nigerian economy.*

**KEYWORDS:** *Exchange Rate, Financial Market, High-powered Money, Monetary Policy, Quasi Money.*

## 1.0 INTRODUCTION

The economy of any country rotates on the strength of the currency. The strength of the currency can be derived from its value in the international financial market. The value of the currency is derived from its rate of exchange with the other, especially the major, currencies in the world. The exchange rate determines to a large extent the volume of transactions in the economy. In a country where the transactions are mainly import-dependent, the exchange rate drives the nature and scope of overall economic activities.

There are various ways and means of determining the exchange rate of any given currency. Nonetheless, the most popular models are the Fixed Exchange Rate system and the Floating (or Flexible) Exchange Rate system, their variants notwithstanding. Exchange rate determination and movements are influenced by several factors but one of the most fundamental factors is money supply.

Money supply is the total sum of money in circulation that facilitates the exchange process in an economy at any given time. It is a certain multiple (m) of "high-powered money" (H) in a country which is also called "base money" or "monetary base" represented mathematically as  $M = mH$ .

Money supply is the money stock available in an economy and consists of the monetary assets (International Reserves and Domestic Credit) and liabilities (Cash and Banks' Deposits) of monetary system's balance sheet. It is a major policy tool used in monetary stability because of the dynamic and static roles of money, which include the provision of answer to the basic questions of the economy, key facilitator of the anchors of the economy and capital formation, among others. Given these roles, the quantity available at any time will affect economic activities and by extension macroeconomic variables, including exchange rate. The international value of domestic currency is measured by the stability of a ruling exchange rate, which is influenced by the quantity of money available for economic activities at any given time. The need to watch and control money supply to the economy becomes very fundamental. In Nigeria, the Central Bank of Nigeria (CBN) is mandated by Section 2 of 2007 CBN Act No. 7 to, among others, ensure monetary and price stability; issue legal tender currency in Nigeria; and maintain external reserves to safeguard the international value of the legal tender. Based on these objects, CBN is given power to use instruments like money supply to achieve them. However there are arguments that money supply (MS) is not a factor to use in achieving monetary stability since it is endogenously driven.

According to this group of heterodox financial economists, money supply is determined by the workings of the economy rather than that of Central Bank, thereby giving MS an endogenous posture. They believe, according to Wikipedia, that the sources of inflation and instability in other macroeconomic variables like exchange rate must be found in the distributional structure of the economy, and not in MS. Again, they see Central Bank's control over money supply as feeble, saying that there are two weak links between the growth of money supply and the inflation rate. First, an increase in money supply, unless trapped in the financial system as excess reserves, can cause a sustained increase in real production instead of inflation in the aftermath of

a recession, when many resources are underutilized. Second, if the velocity of money, i.e. the ratio between nominal GDP and money supply, changes, an increase in money supply could have either no effect, an exaggerated effect, or an unpredictable effect on the growth of nominal GDP. Heakal (2005) noted that less orthodox monetarists hold that an expanded money supply will not have any effect on real economic activity such as on production, employment levels and spending. Pettinger (2009) explained that 'if you print money to buy goods overseas, you are effectively devaluing your currency, thereby reducing the purchasing power of Sterling. If the government increased the supply of pounds (by printing money), the Pound would be worth less on the foreign exchanges so you would be able to buy less foreign goods/ debts with Pound Sterling, so printing money would not solve the problem of (our) foreign debt'.

As sound as the above argument by unorthodox financial economists may look, most countries of the world have adopted money supply as monetary management tool. The need for its adoption and regulation cannot therefore be overemphasized. According to CBN (2006), the need to regulate money supply is based on the knowledge that there is a stable relationship between the quantity of money supply and economic activity and that if its supply is not limited to what is required to support productive activities; it will result in undesirable effects such as high prices or inflation and unstable exchange rate.

Therefore, this research seeks to examine the impact of money supply on exchange rate in Nigeria between 1980 and 2011. The essence of studying this 32-year period is to cross-match the period of Fixed Exchange rate system between 1980 and 1985 with the era of Floating Exchange system between 1986 and 2011.

To put the paper into proper focus, it is sectionalized. Section 1 provided an introductory background, Section 2 reviewed relevant literature while Section 3 looked at the methodology. Section 4 analysed data and gave its interpretation. Recommendations and conclusion are done in section 5.

## **2.0 LITERATURE REVIEW**

As pointed out in the introductory part of this paper, money supply is the sum total of all monetary instruments used in a country to consummate transactions over time. The Central Bank of Nigeria (CBN) defines money supply in two ways: narrow and broad money. Narrow money (M1) is defined to include currency in circulation plus current account deposits with commercial banks. Broad money measures the total volume of money supply in the economy and is defined as narrow money plus savings and time deposits with banks including foreign denominated deposits. Countries use different monetary instruments as means of effecting payment and as such there is no perfect definition of money supply. It differs from one country to the other and each definition depends on the level of sophistication and development of the financial system in general and the financial market in particular.

Money supply is usually measured with monetary aggregate as a means of exchange and as a store of value. The sum of both measures form the Total Monetary Aggregate of a country's money supply. It is presented as forming a continuum from the most liquid to the least liquid. The monetary measure presented by Central Bank becomes its definition of money supply whether narrowly or broadly defined. For instance, United States of America measures its money supply with the following monetary aggregates and their components: (Wikipedia, the free encyclopaedia)

**M0:** The total of all physical currency including coinage.  $M0 = \text{Federal Reserve Notes} + \text{US Notes} + \text{Coins}$ . It is not relevant whether the currency is held inside or outside of the private banking system as reserves.

**MB:** The total of all physical currency plus Federal Reserve Deposits (special deposits that only banks can have at the Fed).  $MB = \text{Coins} + \text{US Notes} + \text{Federal Reserve Notes} + \text{Federal Reserve Deposits}$

**M1:** The total amount of M0 (cash/coin) outside of the private banking system plus the amount of demand deposits, travellers checks and other checkable deposits

**M2:**  $M1 + \text{most savings accounts, money market accounts, retail money market mutual funds, and small denomination time deposits (certificates of deposits of under \$100,000)}$ .

**MZM:** 'Money Zero Maturity' is one of the most popular aggregates in use by the Fed. It is  $M2 - \text{time deposits} + \text{money market funds}$

**M3:**  $M2 + \text{all other CDs (large time deposits, institutional money market mutual fund balances), deposits of Eurodollars and repurchase agreements}$

**M4-:**  $M3 + \text{Commercial Paper}$

**M4:**  $M4- + \text{T-Bills (or } M3 + \text{Commercial Paper} + \text{T-Bills)}$

**L:** The broadest measure of liquidity that the Federal Reserve no longer tracks. Pretty much  $M4 + \text{Bankers' Acceptance}$

In the United Kingdom, there are only two official monetary measures M0 and M4. M0 is referred to as the "wide monetary base" or "narrow money" and M4 is referred to as "broad money" or simply "the money supply". M1, M2 and M3 are not officially reported

**M0:** Cash outside Bank of England + banks' operational deposits with Bank of England.

**M4:** Cash outside banks (i.e. in circulation with the public and non-bank firms) + private-sector retail bank and building society deposits + private-sector wholesale bank and building society deposits and certificates of deposit.

The European Central Bank's definition of euro area monetary aggregates:

**M1:** Currency in circulation + overnight deposits

**M2:**  $M1 + \text{deposits with an agreed maturity up to 2 years} + \text{deposits redeemable at a period of notice up to 3 months}$ .

**M3:**  $M2 + \text{repurchase agreements} + \text{money market fund (MMF) shares/units} + \text{debt securities up to 2 years}$

The Reserve Bank of Australia the monetary aggregates as:

**M1:** currency bank + current deposits of the private non-bank sector

**M3:**  $M1 + \text{all other bank deposits of the private non-bank sector}$

**Broad Money:**  $M3 + \text{borrowings from the private sector by Non Bank Financial Institutions (NBFIs), less the latter's holdings of currency and bank deposits}$

Other measures include:

**M4:** A less commonly used monetary aggregate, also known as "extended broad money". Depending on the country, it includes M3 + other types of deposits (such as those held by expatriate citizens or by various governmental agencies). This monetary measure is released by only a few countries.

**TMS: ("True Money Supply")** is a monetary measure developed by Murray Rothbard and Joseph T. Salerno of Austrian School of Economics which defines money as the final means of payment in all transactions. The TMS consists of the following: Currency in Circulation, Total Demand Deposits, Savings Deposits, U.S. Government Demand Deposits and Note Balances, Demand Deposits Due to Foreign Commercial Banks, and Demand Deposits Due to Foreign Official Institutions. (Hewitt, 2009)

In Nigeria, monetary aggregate is measured by M1 and M2. M1 includes demand deposits privately held with commercial banks and Central Bank. It is the narrow definition of money supply. M2 is made up of M1 plus Quasi (i.e. near) money (Okereke *et al*, 2009). The most commonly used monetary measures are **M1**, **M2** and **M3**. But Nigeria has only **M1** and **M2**. The obvious reason is the level of development in the financial sector and it is the basis of our analysis in this study.

Money supply is a critical factor in determining the level of economic activity and the behaviour of price related economic variables like exchange rate. When money supply is increased, more money is allowed to go into the hands of producers and consumers, which consequently stimulates investment and consumption. Basically, as money supply expands, prices respond to such expansion especially in full capacity output condition and sometimes in the same proportion as explained in the quantity theory of money.

In this circumstance the behaviour of such macroeconomic variable like exchange rate may not be certain. Thus, researchers have tried to investigate the effect MS has on exchange rate, as it continues to be a sizzling issue in economic and financial discourse.

## EMPIRICAL EVIDENCE

Akinbobolai (2012) provided quantitative analysis of the dynamics of money supply, exchange rate and inflation in Nigeria from 1986:01 (Q1) to 2008:04 (Q4), using Vector Error Correction Mechanism (VECM). Atkinson and Kehoe (2001) in Akinbolai, believes that fixing the exchange rate has the advantage of providing an observable commitment to monetary policy. They formalized the argument that because it is more transparent, the exchange rate has a natural advantage as an instrument for monetary policy.

Hewitt (2009) in his study explained that exchange rate is affected if high-powered money (H) is increased by either Open Market Operation where the Central Bank purchases domestic assets (typically government bonds) or supply of demand deposits through banks' loan-making activities. Domestic Credit (DC) increases and the payment for it (in cash or in credit to bank deposits) increases H by the same amount. The reverse happens when the Central Bank sells domestic assets or Foreign Exchange market intervention where the Central Bank purchases foreign assets (typically, US dollar assets including dollar deposits, US government securities, etc.). Foreign Assets increase and the payment for it also increase H. The reverse happens when the Central Bank sells foreign assets. Therefore exchange rate can be managed to the extent that

money supply is controlled by an increase or decrease of high-powered money (H) at a given multiplier (m).

In another study by Mohammad (2010), it was found that monetary policy (money supply) has an important influence on the domestic variables (for instance, output and inflation), but has less influence on external variables such as current account and real exchange rates. In line with this finding, Familoni (1989) found monetary policy (Money Supply) as not having much influence on economic growth and other variables like exchange rate in Nigeria. This according to him is because Nigeria does not have a highly integrated and monetized economy and regular information network system upon which the classical economists (monetarists) conducted their study and came to their conclusion.

West African Monetary Agency (WAMA) (2009) carried a comprehensive study of West African countries on an analysis of the relationship between money supply growth and the movements in nominal exchange rates and found that the degree of correlation is insignificant in UEMOA, Nigeria, Cape Verde and Liberia (below  $\pm 0.3$ ). It is however moderate in Sierra Leone and Ghana (between  $\pm 0.4$  and  $\pm 0.6$ ) and significant in the Gambia and Guinea (above  $\pm 0.7$ ). The correlation analysis suggests that an increase in money supply is likely to lead to currency depreciation in Gambia, Ghana, and Guinea. On the other hand, changes in money supply have negligible or no impact on the CFA, the Nigerian naira, the Cape Verdean escudo and the Liberian dollar. However, the analysis showed that an increase in money supply in Sierra Leone is likely to lead to a moderate appreciation of the Leone.

The tendency for real exchange rate appreciation following increases in broad money supply was observed in Liberia whilst the impact is moderately insignificant in Ghana, Nigeria, Sierra Leone, Cape Verde and most of the UEMOA countries. On the other hand, the pass-through effect of increases in broad money supply to real exchange rate depreciation is significant in the Gambia and Guinea.

In general, changes in money supply growth have no significant impact on real exchange rate stability in most ECOWAS countries, with the exception of the Gambia, Guinea and Liberia where the pass-through effect is significant. Thus, it could be concluded that excessive monetary expansion could worsen the real exchange rate of a few countries, while in some countries there are other important determinants that are likely to affect the real exchange rates.

Onosewalu and Taofeek (2008) in their study found that inflation rate, exchange rate, oil revenue, government spending and money supply are co-integrated. This revealed a strong relationship among the variables though inflation rate and exchange rate show no long term relationship, but short term relationship seems to exist between them.

Examining changes in money supply under flexible and fixed exchange rates respectively, Wikipedia Economics explained that an increase in money supply shifts the liquidity-money supply (LM) curve to the right. This directly reduces the local interest rate relative to the global interest rate, and depreciates the exchange rate of local currency through capital outflow. The depreciation makes local goods cheaper compared to foreign goods, and consequently increases exports and decreases imports. Hence, net exports are increased. Increased net exports lead to the shifting of the Investment-Saving (IS) curve to the right, partially or entirely mitigating the initial decline in the domestic interest rate.

Under the fixed exchange rate system, the central bank operates in the foreign exchange market to maintain a specific exchange rate. If there is pressure to depreciate the domestic currency's exchange rate because the supply of domestic currency exceeds its demand in foreign exchange markets, the local authority buys domestic currency with foreign currency to decrease the domestic currency's supply in the foreign exchange market. This keeps the domestic currency's exchange rate at its targeted level. If there is pressure to appreciate the domestic currency's exchange rate because the currency's demand exceeds its supply in the foreign exchange market, the local authority buys foreign currency with domestic currency to increase the domestic currency's supply in the foreign exchange market. Again, this keeps the exchange rate at its targeted level. Generally speaking, a temporary (permanent) increase in a country's money supply causes a proportional short (long run sharp) depreciation of its currency.

The econometric study of Umeora (2010) on money supply, exchange rate and inflation showed that Money Supply (MS) and Exchange Rate are correlated. Each of the variables affects inflation in varying degrees. It means that an increase in MS will lead to an increase in exchange rate which implies depreciation of domestic currency.

The above studies showed the use of aggregate (broad) money supply on exchange rate. They failed to consider the component of broad money. This is the gap established. Therefore, this paper econometrically examined the impact of disaggregate (M1 and Qm) and aggregate (M2) money supply on exchange rate. This is with a view to determining the component that exerts more influence on exchange rate.

### 3.0 METHODOLOGY

Two major exchange rate systems, namely fixed and floating were used. It covered a period of 32 years (1980 - 2011). The study employed secondary data sourced from CBN Statistical Bulletin. Descriptive and quantitative analyses were carried out. E-View statistical package was used to determine the relationship between the variables. The data is presented in Appendix 1

Based on the Least Squares procedure, we specify a short-run model below:

$$\ln(\text{EXR}) = \beta_0 + \beta_1 Q_m + \beta_2 M_1 + \beta_3 M_2 + \beta_4 \text{RESERVE} + \beta_5 \text{DUMMY} \quad \text{-- (4.0)}$$

Where;

EXR= Exchange Rate

$Q_m$ = Quasi Money

$M_1$ = Narrow Money

$M_2$ = Broad Money

RESERVE= External Reserve (as Check variable)

Dummy= 1 for flexible regime, 0 otherwise (fixed exchange rate regime)

A priori:  $\beta_1 < 0$ ;  $\beta_2 > 0$ ;  $\beta_3 > 0$ ;  $\beta_4 < 0$ ;

### HYPOTHESES

Four hypotheses were formulated for this research.

$H_{01}$ : There is no significant relationship between quasi money and the Naira/ Dollar exchange rate in Nigeria

$H_{02}$ : There is no significant relationship between narrow money and the Naira/ Dollar exchange rate in Nigeria

$H_{03}$ : There is no significant relationship between broad money supply and the Naira/ Dollar exchange rate in Nigeria

$H_{04}$ : There is no significant relationship between level of external reserve and the Naira/ Dollar exchange rate in Nigeria

## 4.0 DESCRIPTIVE AND QUANTITATIVE RESULTS

### 4.1 DESCRIPTIVE RESULTS

The descriptive results of our analyses are shown in Appendix 2 and they are presented as follows. The growth in quasi money ( $Q_m$ ) became visible in 1986 but saw a stable growth up till 1992 when it gradually moved north ward till 2005. There was also a very sharp growth in the same direction up to 2011.

From the graph, narrow money supply ( $M_1$ ) became visible in 1987 and was stable up till 1990 when it steadily moved north ward till 2011.

Broad money supply ( $M_2$ ), just like  $M_1$ , started growing from 1987 and was stable till 1991 when it progressively moved upward till 2011. From the analyses it is obvious that money supply, on the aggregate, has been growing showing an expansionary posture of government.

Exchange rate stabilized from 1980 to part of 1986. In 1986, a gradual increase (depreciation) was observed up till 1993 when it stabilized again till 1998. There was a sharp steady north ward movement from 1998 to 2005. From 2005 to 2009, the naira gained some value by moving south ward. From 2009, a sharp north ward movement was recorded till 2011, showing naira depreciation. Any gain on the naira value, if any, is very insignificant from the graph.

### 4.2 QUANTITATIVE (ESTIMATION) RESULTS AND ANALYSIS

**TABLE 5.1: RESULTS OF SHORT-RUN ESTIMATED MODEL OF QUASI MONEY, NARROW AND BROAD MONEY SUPPLY, EXCHANGE RATE, AND EXTERNAL RESERVE IN NIGERIA (1980- 2011).**

Variable	Coefficient	t-Statistic	Prob.
C	-0.573040	-0.196688	0.8449
$Q_m$	-0.000285	-10.20264	0.0000
$M_1$	3.30E-05	1.133`998	0.2627
$M_2$	0.000148	5.997033	0.0000
RESERVE	-0.000280	-0.608725	0.5457
DUMMY	21.79316	8.837231	0.0000
R-squared	0.918594		
F-statistic	103.8133		
DW Statistic	1.269380		

Source: E-Views 7 Computation

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## ANALYSIS OF SHORT-RUN RESULT

From the Short-run estimated linear model, the summary statistic shows that changes in exchange rate is explained by 91percent variation in quasi money, narrow money, broad money supply, external reserve and policy regimes in Nigeria.

The F-ratio is significant at 5% confidence level showing that the model has an overall significance and is good for our purpose.

We next consider the behaviour of the individual money supply component and external reserve surveyed as inferred from their coefficient estimates as shown below. Interestingly, the dummy or categorical variable indicates that periods of floating exchange rate policy regime has influenced exchange rate positively even to a great extent; this also implies that market-determined exchange rate policy is significant, relative to a fixed or regulated policy regime. This significant posture of floating exchange rate has not been reflected on the purchasing power of the Naira or other developmental indices like employment, human capital index and standard of living of the people, among others. The desired stability in exchange rate is yet to be attained. Therefore, the use of floating exchange rate system is still in question.

Looking at another variable more succinctly, Quasi money or near money showed a negative and significant sign on exchange rate. We therefore conclude that there is a significant relationship between quasi money and the Naira/ Dollar exchange rate in Nigeria. This suggests that growth in near money helps to strengthen the value of Naira. Policy implication of this finding advocate that the depth of near money should be developed and sustained as a means of strengthening the Naira against the US Dollar and other currencies of the world, especially in a market-determined policy regime.

Also, the estimated short-run model reveals that narrow money exhibits a positive sign. Therefore, this reveals there is a significant relationship between narrow money and the Naira/ Dollar exchange rate in Nigeria. This implies that increase in narrow money supply (expansionary monetary policy) tends to depreciate the Naira/ Dollar worth.

Inspection of the composite (broad) money supply indicates that expansionary monetary policy tends to depreciate the Naira/ Dollar value. The result accepts the alternate hypothesis that there is significant relationship between broad money supply and the Naira/ Dollar exchange rate in Nigeria. This finding is consistent with the position in Pettinger (2009). According to him, 'if you print money to buy goods overseas, you are effectively devaluing your currency'. Similarly, Umeora (2010) showed that money supply and exchange rate are correlated.

Foreign reserve, in addition, illustrates a negative relationship with foreign exchange rate. Thus, the null hypothesis is rejected in favour of the alternate, which states there is significant relationship between level of external reserve and the Naira/ Dollar exchange rate in Nigeria. This implies that accumulation of foreign reserve would strengthen the Naira/ Dollar value.

It is widespread to treat the terms "autocorrelation" and "serial correlation" synonymously, although Tintner (1965) in Gujarati (2007) has distinguished the two expressions. He defined autocorrelation as lag correlation of a given series with itself lagged by a number of time units, whereas, according to him, serial correlation is lag correlation between two different series. Importantly, we employed the Durbin-Watson (DW) test for autocorrelation; it is based on the

assumption underlying the ordinary least squares (OLS), that the error term ( $\mu$ ) is assumed to be uncorrelated.

The null hypothesis for this test states that:

$H_0: \rho = 0$   $V_{s.}$   $H_1: \rho \neq 0$ , Reject  $H_0$  at 0.05 level if:

**TABLE 4.2: DURBIN-WATSON (D) DECISION RULES**

Null Hypothesis	Decision	If
No positive autocorrelation	Reject	$0 < d < d_L$
No positive autocorrelation	No decision	$d_L \leq d \leq d_u$
No negative autocorrelation	Reject	$4 - d_L < d < 4$
No negative autocorrelation	No decision	$4 - d_u \leq d \leq 4 - d_L$
No autocorrelation, positive or negative	Do not reject	$d_u < d < 4 - d_u$

Source: Gujarati (2007: 480)

However, the computed Durbin-Watson value is 1.269380. It is set that the tabulated Durbin-Watson value is certain as  $D_L = 1.109$ ,  $D_U = 1.819$ . The tabulated lower Durbin-Watson  $D_L$  is less than the computed Durbin-Watson and the tabulated upper Durbin – Watson ( $d_u$ ) is greater than the computed Durbin-Watson value; hence, we cannot conclude that the error terms are associated with one another.

## 5.0 RECOMMENDATIONS

Based on the research findings and discussions, the following recommendations are proffered.

The Nigerian financial market in general and money market in particular should be strengthened in both depth and breath. This will help the quasi money component of money supply to play its rightful role in driving the economy. The monetary authority should watch their current expansionary posture and move towards contraction of money supply. This will no doubt help in enhancing the value of domestic currency.

The available money outside the banking system should be properly channelled for productive purposes in order to achieve desired stability in the naira exchange rate and, by extension, growth in the Nigerian economy.

Deliberate and conscious effort should be made to increase the level of Nigerian foreign reserve based on diversified sources without sacrificing foundational infrastructures that are near non existence. This can only be attained by embarking on policies that will strengthen and sustain the productive base of the economy.

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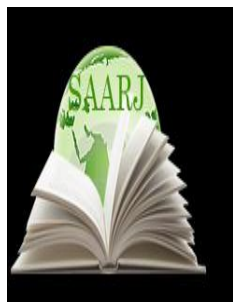
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## **FUZZY-DETERMINISTIC MODELS OF UNDERGROUND WATER INTAKE FORMATION PROCESSES**

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UZBEKISTAN

### **ABSTRACT**

*The article deals with the search for ways to improve the quality of mathematical modelling of geofiltration processes in the conditions of unreliability of initial information, i.e. data of regime observations, represented in numerical form. The article also uses deterministic geofiltration models for one-and two-layer aquifers. The parameters of the medium, the right parts, the initial and boundary conditions, as well as the conditions for the relationship between the mathematical model and the hydrogeological object are formalized based on the principles of fuzzy set theory.*

**KEYWORDS:** *Hydrogeology, Algorithm, Software, Fuzzy-Deterministic Modeling, Formation, Underground Water Intakes.*

### **INTRODUCTION**

Let the filtration area - ERW-be represented as a single-layer layer and elements of formation (river, infiltration channels, infiltration basins) and exploitation (wells).

Traditionally, numerical modeling of geofiltration processes in the presence of a representative network of observations and undisturbed regime of the underground hydrosphere was carried out on the basis of deterministic models of geofiltration. However, in the conditions of intensification of the influence of technogenic factors on natural objects, including hydrogeological objects, it is urgent to find ways to improve the quality of mathematical modeling of geofiltration processes in the conditions of unreliability of initial information, i.e., data of regime observations, presented in numerical form. Much of the necessary information for hydrogeological objects affected by man-made factors is available in the form of experience, opinions and judgments of Hydrogeologists, presented in a fuzzy form, in the form of linguistic assessments. Therefore, there is a problem of direct, rather than indirect, application of such information in the process of numerical modeling of hydrogeological processes. Currently, the concept of "fuzzy-partial differential equation" is widely used, which is translated as "fuzzy-incomplete differential equation", based on the extensive use of the principles of fuzzy set theory in the processes of formalization of fuzzy parameters and characteristics of the hydrogeological environment, and the construction of numerical algorithms for the implementation of such models. Evdokimov A.V. presents the results of calculations of differential equations in interval and Gaussian fuzzy numbers using the linearization method.

## MATERIALS AND METHODS

In this article, based on accepted deterministic model of geofiltration for one-and two-layer aquifers, the environment, the right-hand sides, initial and boundary conditions, and the terms of the relationship between the mathematical model and the hydrogeological object are formalized on the basis of the principles of fuzzy set theory and therefore the concept of "fuzzy-deterministic modeling", which apparently is a more adequate concept than the concept of "fuzzy incomplete modeling". The study of the influence of formation elements on the functioning of ERW is carried out on the basis of a numerical solution of the fuzzy-deterministic model (NDM) of unsteady ground water filtration (GW) [8,9]:

$$\mu \frac{\partial h}{\partial t} = \frac{\partial}{\partial x} \left( \tilde{K}(h - \tilde{b}) \frac{\partial h}{\partial x} \right) + \frac{\partial}{\partial y} \left( \tilde{K}(h - \tilde{b}) \frac{\partial h}{\partial y} \right) + \tilde{f} - \tilde{W}(x, y, h), \quad (1)$$

where  $h(x, y, t)$  – levels ГВ;  $\tilde{K}(x, y)$  – fuzzy values of filtration coefficients,  $(x, y) \in D$ ;  $\tilde{b}(x, y)$  – fuzzy values of the water barrier,  $(x, y) \in D$ ;  $\tilde{f}(x, y)$  – fuzzy values of infiltration from infiltration structures;  $\tilde{W}(x, y, h)$  – GV consumption for evaporation;  $D$  – filter area.

Let  $G$  – border of the filter area. NDM (1) is solved by setting the appropriate initial and boundary conditions determined by the conditions for the formation and operation of ERW. In this case, the initial condition looks

$$h(x, y, 0) = \varphi(x, y), \quad (2)$$

$$(x, y) \in D$$

$\varphi(x, y)$  – it is determined from the hydroisogips maps for ERW. There are the following types of boundary conditions:

$$h(x, y, t) = \varphi(x, y, t), \quad (3)$$

$$(x, y) \in \Gamma,$$

where  $\varphi(x, y, t)$  – is given function;

$$km \frac{\partial h}{\partial n} = Q(x, y, t), (x, y) \in \Gamma, \quad (4)$$

$$(x, y) \in D,$$

where  $\frac{\partial h}{\partial n}$  – the normal derivative, then  $h(x, y, t)$  – by contour G;  $Q(x, y, t)$  – is given function.

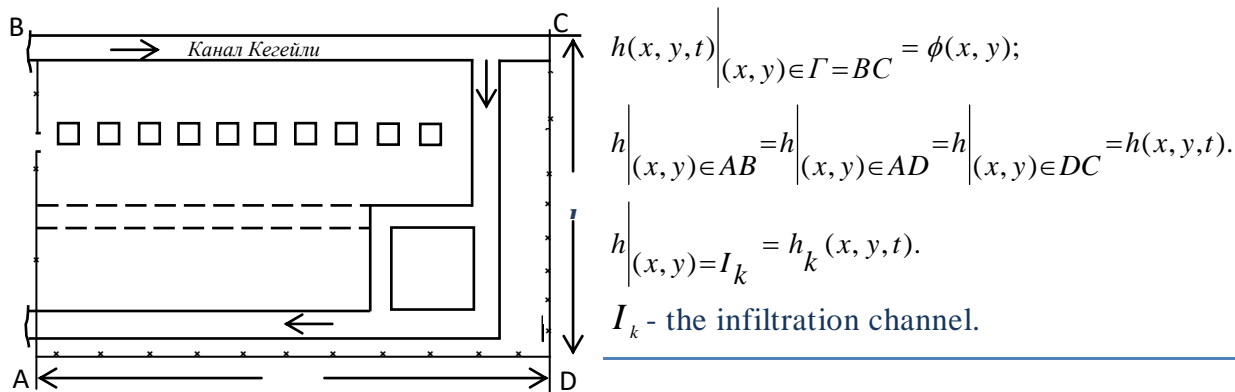
1) On the internal borders-contours of production wells, set the following conditions:

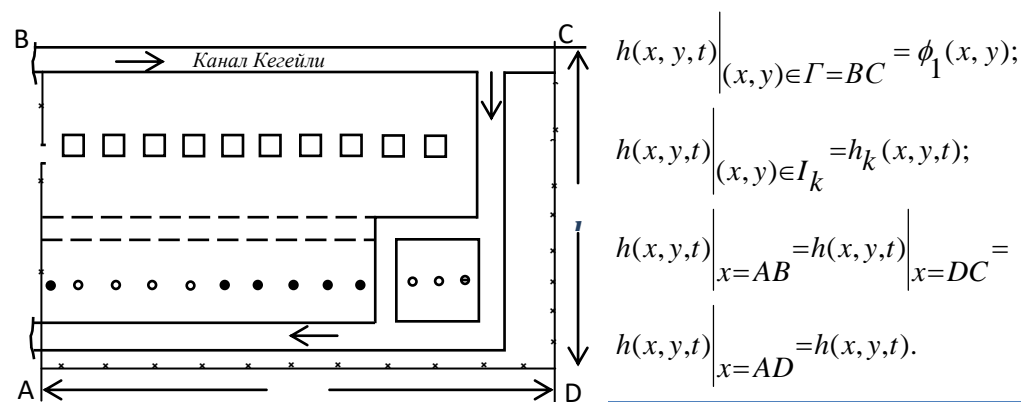
$$\int_{\Gamma_k} kh \frac{\partial h}{\partial n} ds = Q_k(t), \quad (5)$$

where  $\Gamma_k$  – the contour of the bore;  $Q_k(t)$  – pre-set rate;

## Results

The boundary conditions corresponding to specific technological schemes for the formation or operation of ERW are shown in Picture. 1. Points where wells and pools are located are considered internal boundary conditions.





Picture. 1. Technological schemes of ERW formation a-formation scheme; b-recovery scheme

When using the export-import function for attribute information and thematic layers of the GIS software package, it allows you to create high-quality models in the shortest possible time and, at the same time, export the results of hydrodynamic modeling to information systems.

## CONCLUSIONS

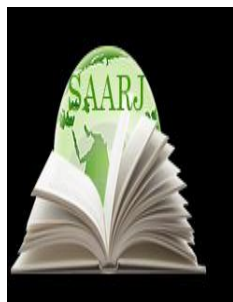
The first hydrogeological and technological aspects of the problem of creating water intakes in the territories are considered, characterized by almost universal influence of technogenic factors on the underground hydrosphere, especially in the territories of Karakalpakstan;

The second Fuzzy-deterministic mathematical models of geofiltration used to formalize the processes of ERW formation and operation are proposed. The main reason for using fuzzy-deterministic approach – heterogeneity of filtration in the filtration ratio in the plan and in the context of the almost universal nature of the influence of anthropogenic factors on the underground hydrosphere and, consequently, uncertain initial and boundary conditions, the uncertainty of the regimes of surface water bodies, operation of wells, intake, etc.

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## **CIVIL SOCIETY IS THE MOST PERFECT, HIGHEST STAGE OF HUMAN SOCIETY**

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### **ABSTRACT**

*After gaining the independence of Uzbekistan, the creation of a free society- equitable civil society - has been identified as one of the great goals of our people. After all, the society that is being formed in our country should be a society of free people based on the principles of democracy and justice. At the same time, as the development of our state is supposed to delegate various management functions directly to the people, that is for the further development of institutions of self-government. Of course, civil society is a gradual, complex and long process. In the article, the modern interpretation of civil society is characterized by the following features: civil society is a social space in which active participation of citizens in the governance of the state and society is provided through appropriate civil institutions; civil society is a society with a system of self-government. This society has the internal powers and resources that can develop independently of the state.*

**KEYWORDS:** *Political And Legal Event, Civil Society, Political Associations, Independent Human Activity.*

## INTRODUCTION

During the years of independent development, in our country has been done considerable work to build the foundations of civil society. At the same time, today radical reforms to achieve this goal are being carried out step by step. In particular, the Decree of the President of the Republic of Uzbekistan No. PF-4947 “On the Strategy of Actions on Further Development of the Republic of Uzbekistan” dated February 7, 2017 was an important political and legal event in accelerating the process of building civil society in our country. The decree acknowledges the necessity of Deeping of democratic reforms aimed at improving state and society, strengthening the role of Parliament and political parties in modernization of the country, ... introduction of mechanisms of public control, strengthening the role of civil society institutions and mass media, is an important task in building the democracy governed by the rule of law and open civil society with a stable market economy.

The formation of bases of civil society in Uzbekistan began primarily with the systematic establishment of their organizational and institutional structures and their legal framework. As in all spheres of social life, the Constitution of the Republic of Uzbekistan has served as an important basis in determining the legal basis for the formation of civil society.

The history of the development of ideas about civil society goes back centuries, but its essence is complex and multifaceted. Considering the notion of “civil society” and studies of its essence, we focus primarily on the fact that they are treated differently. The difference between views about the essence of civil society is due, firstly, to the fact that there are different methodological approaches to its study, and secondly, that this doctrine is connected with the period in which occurred human development, i.e. The interpretation of the content and essence of civil society was based on the ideas that prevailed at that time.

Therefore, it has the means to limit state power. Encourages civic initiative and political activism; civil society is a legal democratic society. This will ensure the priority of human rights and freedom. The supremacy of law develops only as a result of the decision of civil society. In other words, the rule of law is not contrasted with civil society. They complement each other.

There is also a sphere for political participation in civil society activities. At the same time, individuals organized on the basis of their own interests that currently form the governmental authorities (departments). After all, although civil society is a non-political community, it includes political associations that ensure the state’s relations with civil society. The sphere of political participation is a system of relations between political and civil society and the state.

State power is exercised not by the total number of citizens, but only the state apparatus. As for citizens, they (citizens, their associations) participate in the formation and realization of state power. Any state is a single centralized, vertical system, managed from a single center, an organized organization of government agencies in a relationship of mutual subordination. In turn, the state is responsible for the management and protection of society.

## MATERIALS AND METHODS

Civil society, in contrast to the state, manifests itself as a horizontal system of relations of citizens, their associations, unions and communities. This relationship is based on the equality of citizens and personal initiative. The goals of citizens and their associations vary according to their needs and interests.

According to the legal scholar H.Odilkariev, the political state and civil society are mutually contradictory, but the dialectical pair works together.

That is, in his view, civil society is a system of relations and means, independent of the state. However, in the pages of philosophical and legal literature there are sometimes different interpretations of the essence of civil society: «It is difficult to imagine civil society as “independent and independent of state”, as a possible extension of public life. That’s an axiom». It is difficult to support this idea. Because here the author has rejected the path of democratization of society and the concept of nationalization has changed.

It is well known that the state as a separate type of political power does not coincide with the concept of civil society, and its integral part. The most important aspect of the essence of civil society is that it is a unit covering the mechanisms of their private interests and their safety.

In order to more accurately express the difference between civil society and the state, it must be said that regardless of how a state system, its staff and administrative authorities correspond to democratic standards, they will continue to use force and violence. That is why the establishment of public and civil control over the state organs, especially their administrative bodies and organizations, is a global measure against lawlessness, abuse of power, corruption and at the same time, all voluntary and voluntary decisions. Therefore, the establishment of public and citizen control over government agencies, especially its administrative bodies and organizations, is a measure aimed at preventing lawlessness, abuse of power, corruption, as well as all arbitrary and voluntaristic decisions around the world is recognized.

To further reveal the character of interaction between civil society and the state, it is necessary to pay attention to the following conclusions of the First President. In particular, in an enlightened world, there is no such thing as a “civil state”. It’s called Civil Society. In such a society, the value of public organizations is higher than that of state organizations. Law enforcement agencies, ministries and local authorities included in the list of state organizations. Public organizations are formed on the basis of voluntary association of citizens.

It is obvious that in civil society there are not only institutional and functional differences, but also essentially different differences between the components of its structures and state institutions.

According to Academician V.S.Nersisyan, “Civil society is a sphere of independent human activity in the pursuit of private interests. In this case, the participants in social dialogue are formally free and equal subjects engaged in defending their interests, because the legal relationships arise only between independent parties – that is, the owners (in the end, the property guarantees a free and legal content of social relations).

To determine the nature of the phenomenon of civil society, one can rely on the opinion of M.Qirgizboev: “Civil society maintains a balance between political power and society as a guarantee that political power will not become an absolute power”. At this point, it is necessary to highlight the important points in this quote: first, civil society opposes political (state) power, so it does not become an absolute power, that is the trim tool; second, civil society is a factor in the maintenance of corporate and democratic relationship between the state and traditional society.

In his other work, M.Qirgizboev describes civil society as follows: "... Is, first of all, a human unit, voluntarily formed in the economic, social and spiritual spheres of society, embracing the primary non-governmental systems; second, it is a complex of economic, social, family, national, spiritual, moral, religious, industrial, personal and private relations in society; and third, a society in which free individuals, voluntarily formed organizations, and citizens are protected by law from the pressures, interference or stereotypes of various government bodies to which they have constant opportunities for self-expression.

Confirmation of the idea that civil society is a sphere of life, independent of the government and free from its interference, as well as reflected in the works of Z.M.Islomov, M.Sharifkhodjaev, G.M.Tansiqbaeva, M.A.Akhmedshaevs and others. The analysis of different views on the concept, essence, description of civil society shows that to date, a single, common approach to this phenomenon has not been formed.

## RESULT AND DISCUSSION

In one approach, civil society is seen as a set of structural structures reflecting the relations between the individual and the state, pursuing private interests, the second approach – all of traditional society is understood as civil society; in the third approach – the amount of taxpayers; in the fourth approach – the non-governmental sphere of political life, that is, the manifestation of multiparty, corporate; in the fifth approach, it is regarded as a non-political form of social activity of the civil type.

Thus, generally it should be noted that civil society is, above all, the most perfect, the highest stage of human society. Concerning the nature of civil society can make the following considerations: first, it includes family, cooperatives, associations, economic corporations, public organizations, trade unions, artistic, sporting and other associations and social community that long are voluntary groups of people; secondly, civil society is manifested as the totality of a state or political relations, including economic, social, family, national, religious, moral, and religious relations. These include the industrial and personal lives, habits, and traditions of the people; third, civil society is formed on the basis of the rules of self-expression of organizations of free individuals. Arbitrary interference by the public authorities and direct pressure on civil liberties are not allowed by law; fourth, civil society is a product of culture in terms of social relations, the specific form and nature of relations between citizens, because the quality of "citizenship" means the highest level of economic culture, political culture and legal culture known in history.

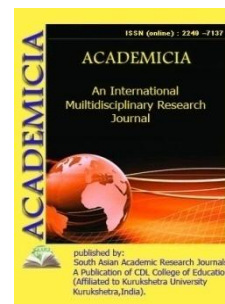
Civil society is a society of developed individual and a rational harmony of their high culture. In short, due to the large scale reforms conducted in our country, the legal basis for building a state governed by the rule of law and a strong civil society has been created.

## CONCLUSION

Now these reforms are carried out in accordance with the experience of developed countries and traditions inherent in the mentality of the Uzbek people. Reforms for the democratization of society have also adopted to these processes. This, in turn, will serve as the basis for further strengthening foundation of a civil society in our country, the progressive implementation of the principle "from strong state to strong civil society".

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## THE ROLE OF MARKETING IN REGIONAL DEVELOPMENT OF THE REPUBLIC OF UZBEKISTAN

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### ABSTRACT

*This article analyzes the features of marketing in the regional development of the strategy of innovative development of the Republic of Uzbekistan and describes the views on them. It was noted that in order to develop exports, we need to pay more attention to marketing in the region. According to modern approaches, the marketing of the region can be defined as a way to establish, build and support such relationships with different market entities. The most important tool for the development of innovative entrepreneurship in the regions of the Republic of Uzbekistan is to create a positive image of the region to attract foreign investment for the development of regional marketing and entrepreneurship, aimed at creating a favorable business environment in the region and beyond.*

**KEYWORDS:** *Region, Marketing, Innovation, Strategy, Research, Infrastructure, Information And Communication Technologies.*

### INTRODUCTION

The State Program "Year of Active Investments and Social Development", adopted within the Action Plan of the Development Strategy of the Republic of Uzbekistan for 2017-2021, identifies the most important and priority areas of development of the country. Uzbekistan needs to recognize three innovation components: investment, innovation and marketing. The most important tool for the development of innovative entrepreneurship in the regions of the Republic of Uzbekistan is to create a positive image of the region to attract foreign investment for the development of regional marketing and entrepreneurship, aimed at creating a favorable business environment in the region and beyond. To do this, we must pay attention to regional marketing, and for this purpose in the legislation a lot of work is being done on the export of agricultural

products, in particular, the President of the Republic of Uzbekistan dated March 14, 2019 No PP-4239 "On measures to develop agricultural cooperation in fruit and vegetables" We can say that.

## MATERIALS AND METHODS

In accordance with the Resolution of the President of the Republic of Uzbekistan dated March 14, 2019 No PP-4239 "On measures to develop agricultural cooperation in the field of fruit and vegetables" training of members of agricultural associations of fruit and vegetable exporters on new technologies of fruit and vegetable production monitoring of agro-technical activities on the lands of members of agricultural associations, the procedure for providing subsidies to cover 50% of the costs associated with conducting marketing research in foreign markets of fruits and vegetables produced by members of agricultural associations. Training of members of agricultural associations of exporters on new technologies of fruit and vegetable production, monitoring of timely implementation of agro-technical measures on their lands and marketing research on foreign markets for fruits and vegetables produced by members of agricultural associations budget and funds of the Export Promotion Agency under the Ministry of Investment and Foreign Trade of the Republic of Uzbekistan, as well as funds of attracted international financial institutions, including the World Bank. It was noted that in order to develop exports, we need to pay more attention to marketing in the region. According to modern approaches, the marketing of the region can be defined as a way to establish, build and support such relationships with different market entities. This ensures a favorable position of the region in relation to resources and target markets. Regional marketing is a means of regulating market relations and reflecting the specific characteristics of the region. Problems faced by Uzbek entrepreneurs in the transition to an innovative economy the role of marketing factors that determine the rules of successful market competition, unstable environment clearly demonstrated the priorities of innovative activities and the flexibility and willingness of entrepreneurs to change them in the conditions of change and consumer preferences. According to world rating agencies, this indicates the very weak position of Uzbek manufacturers in the leading technology markets and key markets for innovative products. In the current context, the role of marketing as a modern and effective tool for the development of innovative entrepreneurship is growing, and regional marketing should be defined as a system of measures to attract new economic agents to the region.

In modern conditions, the marketing opportunities of state and regional management in the regions of Uzbekistan are realized through the management of innovative development of the economy using elements of the marketing complex adapted to the characteristics of innovation-oriented entrepreneurship. However, unfortunately, the promotion of innovative products (marketing services) with significant innovative potential to attract innovative investors, promote regional innovative projects and brands, and promote innovative products (services) in the regions of Uzbekistan is very slow. According to statistics, the fact that marketing innovation ranks last in the structure of innovation costs of Uzbek enterprises indicates that marketing mechanisms and tools to stimulate innovation are not sufficiently developed. At the same time, the practical use of well-proven marketing tools allows to solve such important tasks as increasing the competitiveness and recognition of innovative entrepreneurial products, increasing the attractiveness of innovative investors, creating favorable conditions for innovative entrepreneurship. Therefore, it is important to emphasize that the marketing tools of innovation policy should be actively used by the regions of Uzbekistan, as they are: effective management

of innovation potential of entrepreneurship, increasing its attractiveness for large innovative investors, meeting the needs of target markets by creating innovative products; etc. is important in the implementation.

The possibilities of regional marketing in the field of coordination of goals and objectives of individual entrepreneurs, innovative active enterprises with regional interests are reflected in the concept of socio-ethical marketing, the essence of which is to harmonize the interests of individual producers, consumers and society as a whole.

Marketing regulates a complex network of interactions and interactions of participants in the innovation process. In practice, the state of innovative marketing has been proven to have a decisive impact on organizational methods and the intensity of innovative processes in the economy. The main task of marketing innovations is to promote in the market products that have a decisive impact on innovative entrepreneurial activity.

Participants in regional marketing are government agencies, various non-governmental organizations, as well as economic agents of the market. What are regional marketing facilities? Initially, the object of marketing was only goods and services. In recent decades, with the emergence of the “market of ideas”, their list has been supplemented with new ideas that have specific characteristics of the goods and are in demand among entrepreneurs. In addition to the above, various regional divisions, existing and created organizations, as well as individuals who become a type of product that can meet any needs during their activities can be classified as marketing objects. Thus, the concept of “regional marketing objects” is closely related to any specific objects, new ideas, as an object of marketing, their carriers and intellectual services. This includes not only projects and technologies, forecasts, know-how and patents, but also social norms, rules of interaction, methods of communication (social networks) and more. In fact, any marketing activity is related to the marketing of ideas because it involves the use of specific ideas to start a new business or to promote and sell certain product types. An important idea in marketing ideas is the ability to implement a new idea, turn it into a product (service) that the market demands, and the basis for this is to ensure copyright in the use of the idea.

Currently, the lack of clear directions for marketing incentives for innovative activities at the regional level and the lack of practice in the use of marketing tools is a serious obstacle to the development of innovative potential and competitiveness of the region's economy. Marketing aspects of regional innovation policy are mainly able to determine the economic interest of business entities in the introduction of new technologies. Within the framework of regional marketing, the results of placement in the interregional market, the results of the innovation process - goods and services with innovative features, determine the level of demand for regional innovative products, its competitiveness and market position.

The evolution of regional marketing, like any other institution, is influenced by factors such as the interests of different social groups, previous development paths of the region, and so on. it also includes random events that disproportionate any economic system. The current situation in Uzbekistan is characterized by the fact that the general direction of innovation change is not yet fully defined, so one of the prerequisites for the formation of a positive image of the regional innovation complex in the face of intense regional and international competition is the correct choice of goals, objectives and marketing strategies.

## RESULT AND DISCUSSION

The marketing approach in setting up innovative entrepreneurship in the regions focuses on the real needs, requirements and usefulness of the region for residents and non-residents of individuals and legal entities, rather than on the “products” of the region. Marketing tools of regional innovation policy are important for the formation of a regional innovation system and the effective operation of innovative entrepreneurship. First of all, the lack of a well-functioning regional marketing system has a negative impact on the development of small innovative businesses, as it is the weakest part of the dangerous parts of the economy. The role and importance of marketing communications should be emphasized, as many regions of the Republic of Uzbekistan currently have problems with improving their image and investment attractiveness, creating effective programs for interregional cooperation in the field of innovation.

Marketing technologies, including the means of promoting the image of the regions, products and services produced in their regions, penetrate into the entire modern economy and business. To realize the creative and innovative potential of small business, which is particularly sensitive to changes in market economy conditions, competitive environment, etc., a favorable regional marketing environment is understood as a combination of marketing conditions and organizational structures that provide creation, encouragement and rational direction.

Examining the characteristics of the regional marketing environment and their impact on business activities, it should be noted that changes in marketing technologies continue. The most important element of the marketing environment in the region should be a single flow of information that ensures effective decision-making on the promotion of innovative entrepreneurship at all stages of creation, production and distribution of innovations in the region.

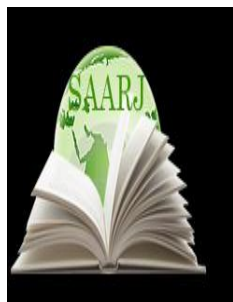
The formation of a marketing approach in the management of the region's economy will create a positive image of the region, ensure its investment attractiveness for foreign and domestic investors. Thus, the effective development of innovative entrepreneurship can be achieved only when there is sufficient marketing support in the form of a set of marketing tools that help to increase the innovative activity of business entities.

## CONCLUSION

The use of marketing tools at the regional level involves adapting the main methods of marketing analysis to the socio-economic, climatic, cultural and industrial-technological development characteristics of the region. Regional marketing allows you to assess the current state of the market, identify prospects for promoting regional innovative products, and take steps to enhance the region's reputation and strengthen its competitive advantage. Therefore, it is important to emphasize the need to use marketing tools at the regional level to encourage innovative entrepreneurship, as they are: understanding the innovative potential of the region, increasing the region's attractiveness for large innovative companies, meeting the needs of target markets by creating innovative products; allows you to develop business relationships.

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## THEORETICAL BACKGROUND OF THE IDEA OF CO-LEARNING THE LANGUAGE AND CULTURE

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### ABSTRACT

*The article depicts some problems of communication culture and speech culture in the works of scientists. In the introduction, concepts of “speech culture”, as well as “culture of communication”, which includes the culture of thinking have been analyzed by providing with examples. Also, in the main part, linguodidactic speech of culture, and accepted rules of behavior in various speech acts of communication are explained by using descriptive analysis method.*

**KEYWORDS:** *Communication Culture, Speech Culture, Ethical Standards, Linguistic Knowledge, Extra-Linguistic Knowledge, Language Tools.*

### INTRODUCTION

The identification of the nature of human communication by representatives of various communities that use a special system of stable communication formulas in the process of interaction is directly related to the linguistic and cultural approach to teaching foreign language RE. In order to “bring to life the language phenomena that we need” [1: 324], we turn to the theoretical foundations of the idea of co-learning a language and culture.

### MATERIALS AND METHODS

Concept of co-learning a language and culture is based on the ideas of close human relationships, language, speech, culture and society, which were investigated in the works of von Humboldt, F.Saussure and A.R.Luria, L.P.Yakubinsk, T.P.Lomteva, V.Panfilov and andmany others.

Since 1980, foreign and domestic linguists and linguodidacts have been conducting research in the framework of the anthropocentric approach, i.e. at the head of the study is personality. Therefore, new linguistic categories appeared in terms of “personality in a language”, “linguistic and cognitive consciousness”, “linguistic personality” [2], and others that firmly entered into linguodidactics. In linguo-didactic terms, “the student is promoted to the subject of educational activity and the subject of intercultural communication ... the prospects of his personal and linguistic development become a reference point in the design and analysis of the content of learning processes ...” [3:13].

It is particularly emphasized national component compiling in the linguistic personality structure [4:49]. We will answer the question of exactly how the national essence of the linguistic personality can manifest itself.

It is known that culture is divided into spiritual and material. Culture determines the way of human activity, and in this activity reflects the characteristics of the culture of behavior and worldview. Culture appears in material form as economic, organizational, moral, scientific, pedagogical, etc., depending on the specifics of that segment of social life in which it operates [5]. It's believed that culture appears, first of all, as the mastery of the wealth of artistic values, for others it seems to be moral. But we are primarily interested in the question of the relationship between language and culture and how they are reflected in speech.

According to A.K. Baiburin, a person masters the culture in parallel with the language and in the process of development, he is likened to the people around him in terms of social behavior. Culture itself begins with the fact that some additional restrictions are imposed on behavior that are not motivated by physical or biological criteria, only in this case it makes sense to talk about social behavior [6]. When mastering a new language, a person expands not only his interest, but also the boundaries of his worldview and attitude. Moreover, how he perceives the world, and what he sees in it, is always reflected in concepts formed on the basis of his (person's) source of language, and taking into account the whole variety of expressive means inherent to this language.

Moreover, not a single situation, not a single event is perceived by a person impartially. They are evaluated by him, as well as the phenomena of other cultures, always through the prism of cultural norms and values accepted in his native linguosocium, through the prism of his own model of understanding of the world.

Thus, language is a socio-psychological phenomenon that contains the whole rich variety of spiritual and material forms of human life and is its urgent need. In material terms, communication is determined by the need and necessity of joint participation of people in the production of material goods. The central place in spiritual life is occupied by the need to form a personality of the new world, the development of its ideological and moral qualities and the need for a person to acquire social experience, familiarize him with cultural values and master the principles and norms of behavior in society, i.e. in a social environment.

According to TP Lomtev, “language - is such an entity, the way of existence and manifestation of which is speech. Language as an entity finds expression in speech. Language is learned through analysis, speech through perception and understanding” [7:58]. However, without knowing the language it is impossible to build speech, “because speech is an application of language, it is a language in action” [8:19]. I.Yu. Abeleva rightly emphasizes, reflecting on the

unity of language and speech: “these are different phenomena that have different properties and to some extent even opposite each other as a means of communication and its method” [9 : 9] . Speech is built from the language, subject to its laws, but it is not the language. Thus, language and speech are different phenomena, but they cannot exist without each other and are closely interrelated . Therefore, we cannot build a correct statement that meets our communicative goals without knowing the language. And on the other hand, thanks to speech, the development of the language system takes place: after all, it is in speech that those random deviations from linguistic norms arise, which can then become regular and become fixed in the language.

Famous psychologist A.R. Luria argued that speech and its traces, which form the basis of the second signaling system, allow distracting and generalizing the signals of reality, formulate intentions, and create a basis for “forecasting” the future [10:125]. So speech also allows you to create long-term structures of excitement and the creation of a program aimed at the well-known goal of human behavior. In turn, L.P. Yakubinsky noted human speech activity as a diverse phenomenon, determined by the entire complex variety of factors and functions [11: 17-58]. Thus, language and speech are a means of contact, and an instrument of intellectual operation, i.e. complex mental activity.

According to V.Z. Panfilov, language has two functions: the communicative function and the cognitive function of culture. 1. Communicative function - is the process of exchange of information between people by means of signs and sign systems. 2. The cognitive function of culture is any culture that creates its own picture of the world, cognizes, exploring the human soul, society and the world [12: 384-385] . It should be noted that the author does not take into account other functions of the language, in particular, the language also performs etiquette, cumulative and other functions that are associated with the culture and social norms of a particular society.

The worldview of a person, his personal characteristics are formed precisely in society, where he (the person) coexists. In the anthropological understanding, people are not born with a certain culture, but acquire it in the course of communication, on the basis of social activity, in particular, speech. The subject acquires the language, which is a component of culture, and through its use gets access to its components. Thus, the personality is socialized, during which the child's thinking and patterns of behavior are formed, therefore the social function of the language as a means of communication, along with other factors, comes to the foreground[13: 15- 16] .

With regard to language teaching, the most significant is the understanding of culture as the totality of the results of human society in industrial, social and spiritual life. Culture as a social phenomenon also represents the values of accumulated and accumulating definitions by a community of people, has a historical genesis, and plays great role in the formation of a exact human personality [14] . Culture is a model of interpretation of what people say and do, a model of social structures and processes [15:17] .

## RESULT AND DISCUSSION

As you know, modern culture involves coexistence in the common world, i.e. to be able to build a mutually beneficial dialogue with all subjects of this common living space, to be able to build humanitarian intercultural bridges between representatives of cultures and countries. In this an

important role is played by the language, which acts as an instrument with the help of which the construction of bridges of understanding and interaction between representatives of various societies becomes a reality. Therefore, in the process of studying, the student must master not only the new language code, but also the way of life characteristic of its speakers, customs, and cultural achievements. In other words, the student must learn the generalized cultural experience of previous generations who spoke this language. With an emphasis on the development of a person's ability to intercultural communication, it is important to interconnect the students to learn a foreign language (the development of speech experience) and develop their cultural experience, which can be used to isolate the individual's attitude to himself and the world [16,74].

But culture cannot be understood without its correlation with society, as integrity. Culture and society are not in abstract relation with each other, but concrete identity, which presupposes not only coincidence, but also difference. The relations of society and culture can be interpreted in different ways, but we understand culture as a product of society, society as a subject of this activity, and "personality is a product of culture" [17: 54]. This leads to the conclusion that it is impossible to understand the genesis, the formation of the individual in isolation from the culture of the social community (a small social group and, ultimately, a nation).

Culture - this is the way people work. And public relations are a springboard, the basis for this activity. Such an understanding helps us to realize how exactly society (public relations) and culture (mode of activity) are connected. Society creates a field for human action, its present appearance determines their boundaries and to a certain extent determines the nature and methods of action.

Culture, according to E. Sepir, "this is what this society does and thinks, and how language thinks ....", while "language does not exist outside of culture, that is, an inherited totality of practical skills and ideas that characterize our lifestyle". In order to coexist in society, a person must think, act like other members of society and use the language that the people speak and, accordingly, interpret it.

## CONCLUSION

Thus, language and culture in the process of communication closely interact, which determines the concept of co-study of language and culture. During the study the student not only masters the new language code, but also the way of life inherent in its carriers, customs, cultural achievements, i.e. spiritual culture, therefore, culture is also an object of instruction, along with language, speech and speech activity.

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## PECULIARITIES OF ENGLISH AND KARAKALPAK POETRY IN NATIONAL PICTURE OF THE WORLD

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### ABSTRACT

*The concept "Mother / Ana" is one of the key concepts in poems, forming life goals, values and ideas of a person. The nuclear position of the concept "Mother / Ana" is motivated primarily by the fact that this concept is associated with the formation of ideas about thought and way of life, human personality, personal and social role in society. In our study, the concept "Mother/Ana" is described in order to identify the national-cultural specificity of conditioned thinking and representation of this category. The concept "Mother / Ana" as a discursive manifestation of the general cultural concept reflects the collective attitudes of society, reproduces attitudes of consciousness in cultural manifestation.*

**KEYWORDS:** *National-Cultural Specificity, Concept, Poems, Linguoculture, Cognitive Linguistics.*

### INTRODUCTION

Cognitive linguistics is one of the topical areas that holds a firm place in modern linguistics. Under the influence of cognitive linguistics at the junction of linguistics and culturology, another direction was formed - cultural linguistics, "a science that studies the manifestations of the culture of the people, which are reflected and fixed in the language" [1, 2004.p27]. Recently, many works have appeared on the study of language in its relation to culture [2, 2007]. The concept is the basic concept of cognitive linguistics, cultural linguistics and linguoconceptology. The term "concept" was first used by S.A Askoldov-Alekseev in 1928 in his work "Concept and Word" [3, 1997.p. 267].

The object of this article is the concept of "Mother", considered in the framework of many scientific areas of the humanities, including linguistics. In every linguistic culture there are undoubtedly only its inherent meanings, which is reflected both in the structure of socio-

cultural life and in the language. Each nation reflects and perceives the world through the prism of its national culture and mentality, which is due to the fact that “every civilization, social system is characterized by its own way of perceiving the world” [1, 2004. p 49].

## MATERIALS AND METHODS

The concept "Mother" is one of the most significant linguocultural concepts for any language and it is included in the list of universal human concepts. Recently, there have appeared many works devoted to the study of the concept of "Mother" on the material of various languages, but there are still not enough works in comparative typology, as well as on the material of the Karakalpak language. As in the literature of other peoples, the image of the mother as the most important element of culture is vividly illuminated in the Karakalpak literature, and especially in such a genre as poetry. The image of a woman-mother, a homemaker, who embodies such qualities as caring, kindness, love and beauty, occupies a special place in the works of many famous Karakalpak poets.

In the study of the concept "Mother / Ana", methods of stylistic and definitional analysis are used. For analysis of the material, we selected examples from the works of famous English poets such as L. Hughes, E.A. Poe, R. Kipling, R.W. Service, W. B. Yits, E. Dickenson, L. Montgomery and Karakalpak poets I. Yusupov, G. Jumamuratov, T. Matmuratov, S. Nietullaev.

## RESULT AND DISCUSSION

The image of the mother occupies a special place in the works of the famous Karakalpak poet I. Yusupov. In the poem Ana, the concept of “Mother” is understood as a woman who gives life to a person, a woman who has children and takes care of them. Consider the following examples from Ana:

Jaralg'ansanmenijaratiwushin  
 Duniyag'atirishilikjaratiwushin  
 Men depuyqiko'rmey tan' atiwushin  
 Duniyag'akelgenseno'zin' anajan  
 Aqsutin'diqariatiripqanin'a  
 Ha'wletipko'terdin' alaqanin'a  
 Aqshamaqbesiktiqoyipjanin'a  
 Tunyuqin'dito'rtbo'gensenanajan  
 Sen miyawlidaraq, mendurjemisin'  
 Boylarimdiko'rsen' piterkemisin'  
 Ha'rbiralg'ang'aniybetlidemushin  
 Ma'n'gimiinetdarmansag'ananajan [4.1962p.120]

"I owe every breath I take in this world to you, my dear mother," the poet writes. These words of confession are only a weak tribute to the holy mother's love. Nothing can be thanked by the mother for everything she does for us, the author claims.

The image of a woman-mother is also revealed in poems «Balaemizipotirg'anhayalg'a», «Awil,awil», «Ta'jiribetamshilari», «Ana juregi»:

1. Dilbarimdepqushaindesem,  
Aybinamananalig'innan  
Perishte bop ushayindesen'  
Jerdejetimqalardayadam[5, 1986.p.128].
2. Anamtuwip, hayiuwaytip,  
So'ylepjuriptiluyretgen  
Umitarmanonika'ytip,  
Esbildirip,adametken ! [6, 1981.p.218].

In the poem "Qaratal" (Black Tal), the poet recalls his childhood. Mother made him a swing and tied them to a black talus (willow). Pleasant childhood memories fill the poet's heart at the sight of the black talus. This is how the poet writes about it:

Apamsag'anbaylapmenin' a'tko'nshegimdi  
Terbetkendeirg'alg'ansan' hayalapsende.

In the following lines, we see the author used the comparison:

Senin' unin', tursan' guwlepaldindatamnin',  
Janimau'nlesha'yuwin'deyazizanamnin'.

In these lines of the poet, we see that the black tal has become so dear and close to his soul, the noise of the rustling of the leaves of the swinging tal is reminiscent of his mother's lullaby. Before the poet's gaze there is a black tal, now calmly, as if "thinking," now swaying in the wind, making a noise, as if "humming" with the rustle of its branches, like a mother was singing a lullaby to him.

The black tal, in the shadow of which the hero recognized love and wrote his first poetic lines, accompanied him with his mother on a long journey, to the city to study:

Bilimquwip men qalag'asaparshekkende,  
Haqjoltilep, anammenenuzattin' sen de.

Maternal feelings for her son - care, love, anxiety are transmitted through the image of a black talus. This is typical of the work of I. Yusupov as a representative of oriental poetry, he skillfully uses in his works poetic signs, symbols (images of a flower, nightingale, plane tree, willow), worked out over the centuries. The appeal to symbols is explained by the importance and volume of the idea that the poet wants to embody - in the examples given in order to brighten up the

image of the mother. Skillful organic use of symbols in poetry gives the proper artistic effect and has an emotional impact on the reader.

The basic lexeme "Ana" is used not only in its basic meaning, but it is often used in the works of I. Yusupov in its peripheral meanings in combinations at the level of words and phrases, forming new meanings: Jer-Ana (Mother-Earth), Ana-Watan (Motherland), Ana-Ta'biyat (Mother-Nature), Tarix-Ana (Mother-History), anajuregi (mother's heart), anasezimi (motherly feeling), anatil (mother tongue). Let's look at some examples:

1. U'lliWatanha'mmesinin' anasi,  
Biebahitliuydin' perzentolar[8, 1982.p.277].
2. Tarix-anatazazamang'ajetip,  
Jan'ashajasawdin' jlingo'zlegen[9,1990.p.338].
3. Ana tilim, senbasqadanayirmam  
Sen turg'anda men de a'dewirshayirman  
Sonshaq'atalsurginlerdejog'almay,  
Bulkunlergejetkenin'eq'ayilman[10,1970.p. 116].

It is interesting to note the fact that the word "Watan"(Motherland)is used in the poem "Watan" by the author only once in the original language, and is associated with the image of the mother:

Sondaanamninn' miyrim toil nurlijuzien  
Tung'ishirettanig'anman men seniko'rip. [11, 1963. p.88)

It should be noted that when describing his country, the Motherland, the poet often uses the words u'lli / great (UlliWatan, Great Motherland), ana / mother (Ana-Watan / motherland). Let's consider some examples:

1. Asilg'anda jaw jag'adan,  
Shaqirg'anda Ana-Watan[12,1972.p.165).
- 2.Ha'rkimnin' bolarWatan-anasi,  
O'zwataninsu'yeradambalasi.[13,1992.p438).

From the given examples, we see that the concept "Ana" has a high semantic valence, ie. the ability to combine with other words.

The poem of the famous Karakalpak poet T. Jumamuratov "Ana" is dedicated to the mother. The poet shows in his work the place and role of the mother in her life: from birth to the period of adulthood. This is how the author of the poem begins:

Hey, ana, bilementilegimdesen',  
Sen menin' mudamijuregimdesen'.  
Qandayko'retug'unbolsan' senmeni,  
Men de tap janimdayko'remenseni.

Sennenqimbat ne bar mag'anduniyada,  
 Sen bolmasan' kelmekqaudaduniyag'a!

The poet recalls with great warmth his childhood, the care and affection of his mother, how his mother endured all his whims, sometimes spoiled him. This is how he remembers it:

Erkelepturg'andaq'ushaq'tiashtin',  
 Juu'iripbarg'andabayirin'abastin',  
 Q'anshaq'iyinshiliqetsemshidadin',  
 «Aspandag'iyadiber!», -depjiladim,  
 Pal bersen' ,sutber – depq'in'irliq' ettim,  
 Sutbersen', «pal ber!»- deptabaq'tito'ktim.  
 Nesheta'rtipsizlikistiettim men,  
 Ayipsinbaykewilimejettin' sen.

Various stylistic devices are used in these lines: phonetic - rhyme, the author used a triple rhyme (...ashtin', ...bastin', ...shidadin'; ... jiladim, ...ettim, ...to'ktim), pair rhyme (...men, ...sen). A syntactic technique - parallelism, the use of direct speech that conveys the speech of a small child helps the author to realistically, in detail and accurately convey his thoughts:

Pal bersen' ,sutber – depq'in'irliq' ettim,  
 Sutbersen', «pal ber!»- deptabaq'tito'ktim.

The poet describes the care of the mother for them, children at all stages of life:

Ha'mmesinin' erkeliginkeshirdin',  
 A'lpeshledin', ma'peledin', o'sirdin'.  
 Issidan, suwiq'tanbizdisaq'ladin',  
 Analiq'tihurmetpenenaq'ladin'.

The use of such stylistic techniques as gradation (keshirdi, a'lpeshledi, ma'peledi, o'sirdi), antithesis (issidan, suwiq'tanbizdisaq'ladin') contributes to the fact that the image of a real caring mother endowed with the best qualities of motherhood is created in front of readers.

The poet's work has an edifying and educational character. He writes:

Isin'diu'mitsam, insanemespen,  
 Tutarmanha'mirin'di, bolmasdemespen.  
 Endisenin' shin kewlin'ejeteyin,  
 Hadaljurekpenenhizmeteteyin.

The author of the poem does not forget to remind the reader that in the life of the mother and their parents there is a period of old age and everything that the mother did to them must be

remembered, and the duty of children is to respect, love and take care of the mother, parents, and provide them with a happy old age. The last lines of the poet end with the words:

Mehriybanimanam, juregim, janim,

Anamdayqa'dirdanu'lliWatanim! ![14, 2005.]

With the help of a metaphor (juregim, janim) and the use of the word "Watan" (Motherland) in comparison with mother, the author wants to show, on the one hand, the importance of the role of mother in human life, and on the other hand, that the concepts "Mother" and "Motherland" are inseparable and are closely related.

In T. Matmurotov's poem "Ana" (Mother), an image of a caring, kind woman-mother, full of love for her children, is created in our minds. This can be seen in the following lines:

Miyrimlilikeaninan

Suwsinbererawirsan' ana

Q'abirg'asiq'ayisipshin'nan

Bas u'shin'dabolar sol g'ana.

The metaphor "miyrimlilikeani" used by the author makes it possible to create the image of the mother more vivid and realistic.

During disasters and cataclysms, in the image of a mother, we see compassion for the entire human race. Mother is like the "moon" that illuminates your path and shows you the way with its light. Consider the following lines from the poem:

Tiribolsaanaa'lemde,

Tekq'asin'daq'alatug'in sol.[15,2003]

The author claims that among friends there are those who can leave you at a difficult moment, but the only devoted, true friend for you is always your mother.

In S. Nietullaev's poem "Ana", the reader has an image of a woman-mother with children, loving and caring. A mother, wherever she is, whatever she does, always thinks about children, all her dreams come down to seeing her children happy. We see this image of the mother in the following lines:

Jatsa, tursabalasioylag'ani,

U'l-q'izinin' bahititoylag'ani,

A'rmanlariiskeassashiqqanshin'i

O'miratlitin'izge – baylag'ani.

A mother's love for her children is sincere and pure, like the morning dew. The word "ana" (mother) is often used by the poet in a pair with the words "bala", "perzent"(children). Mother and children are one, they are inseparable. The poet writes:

Jureginin' ishindebalalari,

Quanishi, q'ayg'i, jaralari,

Adamlardin' adam bop jurgeni de,

Bolg'annan son' usindayanalari.[16,2000]

The use of various stylistic techniques (antithesis, repetition) helps the author to create a realistic image of the mother, on whom the upbringing of children and their future depend. In the last lines of the poem, words with positive connotations are used to describe the image of the mother: where the mother is, everything blooms, the sun smiles, illuminating everything around with its bright rays.

When interpreting the studied concept in the poems in English culture, a comprehensive analysis should be carried out, namely, an analysis of the composition of poems from the point of view of the presence of the image of a song in them, the identification of wagon stylistic techniques (pictorial and expressive means), consideration of the ways of manifestation of reflection on the song and the connection of the image songs with basic concepts of English linguoculture.

L. Hughes' poem "Mother to Son" is a mother's address to her son. The author uses a framework repetition, the sentence used at the beginning of the poem is repeated at the end: Life for me ain't been no crystal stair (Living life is not a field to cross). The mother tells her son what life is like. It should be noted that the poet uses not just words in their direct meaning, but symbolic words that have a figurative meaning, i.e. expressed figuratively. This can be seen from the first lines:

Life for me ain't been no crystal stair.

It's had tacks in it,

And splinters,

And boards torn up.

Life is not a smooth, level staircase that is easy to climb. Just as there may be nails protruding on it, there may be debris, boards that barely hold, in life there may also be difficulties, failures, danger. As a person who has gone through all this in life, the mother tells her son that she continued to "climb the stairs," that is, live trying to overcome all obstacles on the way:

But all the time

I've been a-climbing on,

And reaching landings,

And turning corners.[17, 2002]

The mother warns her son not to look back, advises him not to sit on the steps of the stairs, affectionately addressing him "my sweet" (honey). The use of polysyndeton (repetition of the union and), antithesis: dark-light and many imperative sentences helps the author create an image of a caring mother who fears for her son, tries to protect him from the dangers in life, and help overcome difficulties. And at the same time, the mother teaches her son from her own experience not to give up, not to give up, but to go forward. In the text of the poem, content-conceptual and content-subtext information are in the foreground.

The poem "To my mother" by E.A. Poe is dedicated to the poet's mother, whom he lost early.

Because I feel that, in the Heavens above, The angels, whispering to one another,  
Can find, among their burning terms of love, None so devotional as that of "Mother," Therefore  
by that dear name I long have called you- You who are more than mother unto me, And fill my  
heart of hearts, where Death installed you In setting my Virginia's spirit free. My mother- my  
own mother, who died early, Was but the mother of myself; but you Are mother to the one I  
loved so dearly, And thus are dearer than the mother I knew By that infinity with which my wife  
Was dearer to my soul than its soul-life. [18, 1969]

The poet emphasizes that the word "mother" is a sacred word, using the synonymous repetition – mother- dear name. Sadness is felt in the poet's voice, no one and nothing can replace his mother, the death of his mother is a great loss. The author also speaks with great warmth about his wife's mother-in-law. The lexical repetition of the word "mother" (My mother, my own mother) emphasizes the poet's love for his mother, emphasizing how dear she was to him (heart of hearts; You who are more than mother unto me). Mom was the dearest and closest person to him. The poet uses mainly cross rhyme (abab) and at the end of the poem a pair rhyme (aa).

The poem "Mother O'Mine" by R.Kipling is dedicated to the poet's mother. Through the entire poem, the poet's thought runs that mom is the dearest and closest person to you, who loves you, worries about you, and at any moment she is ready to lend you a helping hand. The entire poem is built on such stylistic devices as repetition and parallel construction (in each verse, the lines have the same syntactic structure, each verse begins with the conditional If I were ...):

If I were hanged on the highest hill,  
Mother o'mine, O mother o'mine!  
I know whose love would follow me still,  
Mother o'mine, O mother o'mine!  
If I were drowned in the deepest sea,  
Mother o'mine, O mother o'mine! [19, 1891]

The poet uses mainly cross rhyme (abab) and in the last verse of the poem a pair rhyme (aa).

Robert William Service's poem "The mother" is about a mother who is far from her children, does not care for them, does not raise them. Life goes on as usual, children grow up, go to school, play sports, work, get married, and all this without a mother. The author conveys this using the syntactic stylistic technique of gradation:

In school and sport, in work and play,  
And last, in wedded bliss.

Stylistic methods of metonymy (Another's voice will cheer) and polysyndeton (repetition of the union and) show the mother's feelings, how she misses and yearns for children and brushes away tears that involuntarily appeared in her eyes:

And you will fondle baby clothes  
And brush away a tear. [20, 2012]

The entire poem is built on a cross rhyme (abab). In the last verse, the author addresses the children's mother, as if reassuring her: if she failed to take care of the children, then maybe taking care of her grandchildren in the future will make her happy and be forgiveness.

Next poem by R.W.Service "Spartan Mother" was written in the first person, on behalf of the son. Since childhood, the mother has been trying to educate her son in her own taste, to instill in him a love for horses and dogs. But the son hated them, he was indifferent to them, but he loved to read books and was interested in art. His mother believed that he had grown out of him as an unlucky person. The war began, the son went to war and died heroically, defending his homeland, his country. A mother is proud of her son. Here is how the poet writes about it:

"Thank God, a son I give  
To King and Country", - well, I'm dead  
Who would have loved to live.  
"For England's sake," she said, "he died.  
For that my boy I bore".  
And now she talks of me with pride  
A hero of the War.[21, 2012]

The author with great skill conveys the mother's feelings that overwhelm her heart: pride in the courage of her son, who gave his life for his homeland. The poem mainly uses cross rhyme (abab), poetry (glee, steed) is used in the vocabulary, and from the point of view of syntax, the verses contain sentences represented by indirect speech, they accurately convey the mother's speech, her address to her son.

In Emily Dickenson's poem "Nature the gentlest Mother is", the poet writes with tenderness and love about a mother who takes care of her children and has boundless love for them. The title of the poem contains the metaphor "Nature the gentlest Mother is" (mother is nature). To create a real image of the mother, the author used many epithets: the gentlest mother, admonition mild, infinite affection, infinite care, her golden finger. In parallel, the author describes what is happening in the forest, in the bosom of nature, and the actions of the mother in relation to children, as if once again emphasizing the similarity of mother and nature.

Nature the gentlest mother is, Impatient of no child, The feeblest of the way wardest. Her admonition mild In forest and the hill By traveller be heard, Restraining rampant squirrel Or too impetuous bird. How fair her conversation A summer afternoon, Her household her assembly; And when the sun go down, Her voice among the aisles Incite the timid prayer Of the minutest cricket, The most unworthy flower. When all the children sleep, She turns as long away As will suffice to light her lamps, Then bending from the sky With infinite affection An infinite care, Her golden finger on her lip, Wills silence everywhere [22, 1924]

The poem "The Mother of God" by William Butler Yeats describes maternal feelings at the birth of a child. The author used hyperbole and oxymoron to show strong feelings: The threefold terror of love; This love that makes my heart's blood stop; And bids my hair stand up? Metonymy in drains (The Heavens in my womb; What is this flesh I purchased with my pains) shows what a child means to a mother (a child in the womb sent by God; flesh that appeared in excruciating pains). Motherhood is an unusual condition inherent in a woman, it is difficult even for poets to convey the feelings of a woman-mother to a child.

The threefold terror of love; a fallen flare Through the hollow of an ear; Wings beating about the room; The terror of all terrors that I bore The Heavens in my womb. Had I not found content among the shows Every common woman knows, Chimney corner, garden walk, Or rocky cistern where we tread the clothes And gather all the talk? What is this flesh I purchased with my pains,

This fallen star my milk sustains, This love that makes my heart's blood stop Or strikes a Sudden chill into my bones And bids my hair stand up? [23, 1968]

The poem "The Mother" by Lucy Montgomery was written in the first person, on behalf of the mother. In it, the poet describes in detail and colorfully the reverent feelings of a mother for her child, using various stylistic techniques. In describing a child, different types of epithet are used: a) a simple epithet: splendid, soft eyes; fine feet; silken fingers, valorous deeds; words so musical and golden; starry truth; poesy olden; poignant love; holy sorrow; deep kisses, white son, waxen brow; b) a complex epithet: dew-fresh charms; c) the epithet in the post position: hair, golden and fine; d) a syntactic epithet, consisting of two nouns connected by the preposition of (noun + of + noun): words of beauty; white rose of your face; e) a figurative epithet: hungry hold. A large number of comparisons used by the author in the description of the child helps him to realistically create a vivid image of the baby:

Your hair like a miser's dream of gold. (baby hair is compared to gold).  
And the white rose of your face far fairer,  
Finer and rarer  
Than all the flowers in the young year's keeping.  
Through your eyes are fast shut I can see their blue,  
Splendid and soft as starshine in heaven. [24, 1912]

Using the metaphor: "Of the heart that shrines and cradles you now!", Gradations and polysyndeton: "Rapture and power and grace must borrow", inversions: "Away from the grasping world I fold you" and in the last line - phraseological unit: "Flesh of my flesh and bone of my bone" helps to convey more deeply the feelings of a mother to her child.

## CONCLUSION

Thus, the analysis of the concept "Mother / Ana" made it possible to reveal that in the poems the focus of attention is the fact of the love of the mother and the child, the child's longing for the mother, the relationship between the child and the mother, the role of the main nature and the land of the motherland as a mother, the belief about the mother - Goddesses belonging to different cultural peoples. The concept of "Mother / Ana" appears in the poetic text, on the other hand, as a cultural and personal event that plays an important role in family and social life, and in each person's own life.

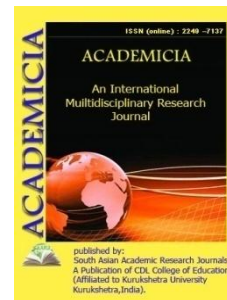
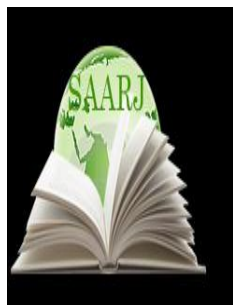
As a result of stylistic, definitional and component analysis of the concept "Mother / Ana" in the poetry of English and Karakalpak poets, the following conclusions can be drawn: on the one hand, the concept "Mother / Ana" is a key concept in the linguistic culture of different peoples and languages, on the other hand, this concept is a socially and culturally significant concept, since it reflects the evaluative ideas of each ethnic group.

Research has shown that although the concept of "Mother / Ana" is universal, it has meanings that include customs, traditions, beliefs, morals, rules and other norms that are associated with caring for and raising children, characteristic of every culture.

The study of the concept "Mother / Ana" in the works of famous English and Karakalpak poets shows the high importance of this concept for both linguistic cultures.

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## PRODUCTIVE POTENTIAL OF SCHWYZ BREED COWS OF DIFFERENT INDUSTRIAL TYPE AND GENOTYPE

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### ABSTRACT

*It was defined during research work that the level of milk productivity of Schwyz breed cows is closely interrelated with production types. Dairy-type cows surpass milk-meat type cows on milk yield per lactation reliably for 458.1 and 983.5 kg, milk butter yield for 16.4 and 37.3 kg, milk protein for 16.3 and 34.6 kg, milk yield of 4% milk for 426 and 932.5 kg, respectively. Cow's milk is also distinguished by its high technological qualities, nutritional value and high suitability for use in cheese-making industry. The study of the lactation curve showed that the cows are characterized by a uniform lactation course, the highest monthly milk yield, regardless of the type, was observed in the second month of lactation, then it gradually decreased by the end of lactation at the tenth month. In the research works, milk productivity of Schwyz cows for the I and II lactations with genotype of European selection was studied. These cows, regardless of lactation, are characterized by high potential for milk productivity. Milk yield of dairy-type cows surpassed milk-meat type peers reliably for 995.7 kg (24.7%), milk production for 100 kg of live weight by 257.2 kg (32.4%), and for the II lactation respectively for 828.4 kg (19.1%) and 217.1 kg (27.4%). The formation of dairy herds by cows taking into account their production type is the key in increasing the productivity of herds.*

**KEYWORDS:** Cow, Milk, Schwyz Breed, Type, Herd, Milk Yield.

## INTRODUCTION

The improvement of breeding, productive, technological qualities of strains of breeding cattle is of great scientific and practical importance in the qualitative transformation, creation of highly productive herds and increasing the volume of livestock production [1-4]. The creation of new highly productive lines, families, types of livestock accelerates the pace of qualitative improvement and creation of breeds [4-6].

Schwyz breed is one of the leading strains of the combined direction, successfully bred in five continents of the globe and in 74 countries of the world. The cattle of this strain is well adapted to different soil and climatic conditions, cows are distinguished by high butter-fat content, longevity, good feed payment by dairy products, proportionally developed builds, there are three production types in the breed [7-10]. Therefore, the study of the productive qualities of cows with regard to these types is of particular actuality in the further improvement of the breed.

The purpose of the research was to study the main breeding traits of full-age Schwyz breed cows of local selection of different production types and imported Schwyz cows of European selection.

The object of the research were Schwyz cows of local and foreign selection of different lactation.

## Material and methods of research

The research works on cows selected on the basis of analogues were carried out in “Shamshir Al Akbar” breeding farm of Shakhrisabz district of Kashkadarya region of Uzbekistan. Dairy cows were selected in the I group, milk-meat cows in the II group and meat-milk production type in the III group, by 12 heads each according to the method of A.S. Vsyakikh (1981). The main breeding characteristics of cows are studied by methods generally accepted in zootechny. Cows were fed according to the level of milk productivity, live weight, physiological state. The feeding conditions of the cows were the same.

## RESULTS AND DISCUSSION

Studies have shown that the level of cows' milk productivity is closely interrelated with the production type (table 1)

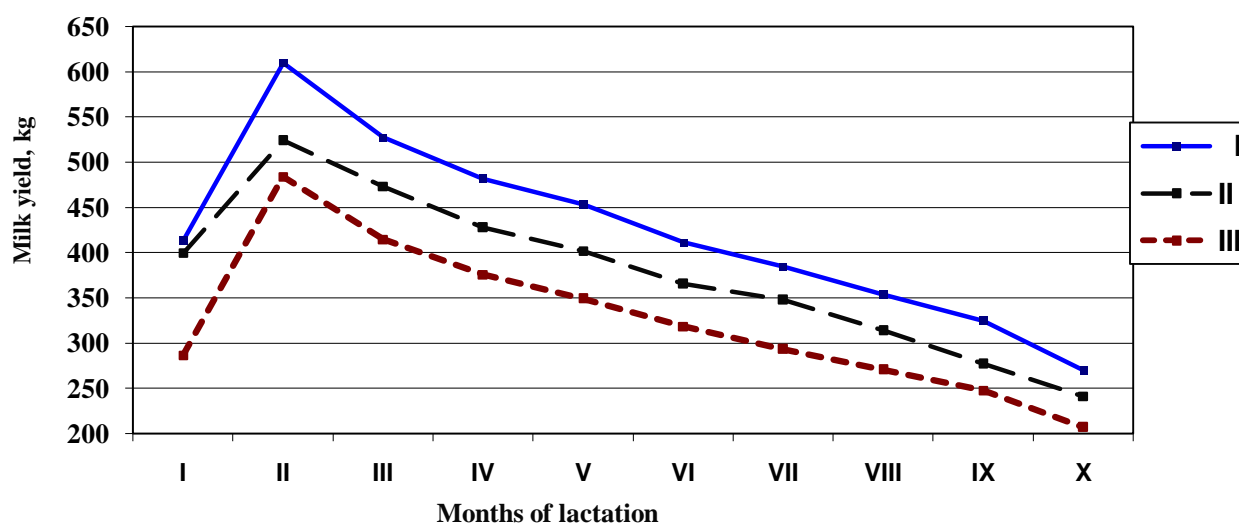
**TABLE 1 MILK PRODUCTIVITY OF COWS DEPENDING ON PRODUCTION TYPES**

Index	Group					
	I		II		III	
	$\bar{X} \pm S\bar{x}$	Cv,%	$\bar{X} \pm S\bar{x}$	Cv,%	$\bar{X} \pm S\bar{x}$	Cv,%
Milk yield, kg	4232,2±112,7	8,83	3774,1±56,7	4,98	3248,7±94,7	9,68
Fat content in milk, %	3,99±0,045	3,77	4,02±0,034	2,77	4,04±0,020	1,65
Protein content in milk, %	3,59±0,029	2,71	3,61±0,021	1,95	3,62±0,013	1,16
Milk butter yield, kg	168,5±2,86	5,64	152,1±1,63	3,55	131,2±3,48	8,81
Milk protein yield, kg	152,4±3,02	6,56	136,1±1,52	3,70	117,8±3,20	0,04
Milk yield of 4% milk, kg	4212,2±71,7	5,64	3786,2±38,7	3,39	3279,7±8,70	8,80
Milkiness coefficient, kg	856,7±17,2	6,66	750,7±10,0	4,43	632,9±13,8	7,25

Dry substance, %	12,51		12,55		12,57	
Milk sugar, %	4,51		4,52		4,52	

An analysis of the data in Table 1 showed that the milk yield of dairy type cows of the I group was reliably higher for 458.1 and 983.5 kg than in the milk-meat and meat-milk types of the II and III groups. The yield of milk butter was higher for 16.4 and 37.3 kg, milk protein for 16.3 and 34.6 kg, 4% milk for 426 and 932.5 kg, respectively.

It should be noted that the fat content in milk in the I group was for 0.29%, protein for 0.29%, higher than in the II and III groups, respectively, for 0.32 and 0.31%, 0.34 and 0.32% higher than the standard requirements of the Schwyz breed, and the ratio of fat and protein in the I and II groups was made 1.11, in the III-1.12 units, which indicates the high nutritional value of their milk and its suitability for use in cheese-making industry.



**Figure 1. Changing of lactation curve of experimental group cows**

Studying the nature of lactation showed that, regardless of the production type, cows of all groups had the highest monthly milk yield in the second month of lactation, which in group I was 14.4%, in II-13.89% and in III-14.90% of milk yield per lactation (Fig. 1).

We explored fodder payment by dairy products of experimental group cows (table 2).

**TABLE 2 FODDER PAYMENT INDICES OF COWS BY DAIRY PRODUCTS**

Index	Group		
	I	II	III
Feed units consumption per lactation, on average for 1 head	4306,6	4037,6	3688,1
Milk yield, kg	4232,3	3774,1	3248,7
Milk yield of 4% milk, kg	4212,2	3786,2	3279,7
Feed units consumption for the production of 1kg of	1,02	1,07	1,12

natural milk, kg			
Feed units consumption for the production of 1 kg of 4% milk, kg	1,02	1,07	1,12
For every 100 kg of feed units produced: natural milk, kg	98,27	93,47	88,09
4% milk, kg	97,81	93,77	88,93

As the data of table 2 testified, more productive cows better paid feeds with dairy products. Thus, cows of the I group consumed on the production of 1 kg milk, respectively, for 4.74 9% less feed units than in the II and III groups, for every 100 kg of feed units they produced respectively for 4.8 kg (5.1%) and 10.18 kg (11.56 %) of natural and for 4.04 kg (4.31%) and 8.88 kg (9.98%) of 4% milk more than in the II and III groups.

We also studied milk productivity of Schwyz breed cows, imported from Germany when they were heifers. Twenty-nine heads (87.9%) were classified as dairy, and only 4 heads (12.1%) were classified as milk and meat type of 33 fresh cows. In table 3 the productivity of cows for I lactation is given.

**TABLE 3 MILK PRODUCTIVITY OF IMPORTED COWS FOR I LACTATION**

Index	Production type			
	dairy		milk-meat	
	$\bar{X} \pm S\bar{x}$	$C_v\%$	$\bar{X} \pm S\bar{x}$	$C_v\%$
Number of heads	29		4	
Milk yield, kg	5023,1±104,9	10,6	4027,4±130,4	5,60
Fat content in milk, %	3,97±0,07	3,25	3,96±0,018	0,81
Milk butter yield, kg	199,4±3,69	9,81	159,5±5,69	6,18
Milk yield of 4% milk, kg	4985,5±94,9	9,94	3987,1±142,4	6,19
Milk yield per 100 kg of live weight, kg	1050,0±26,83	13,45	792,8±11,38	2,48
Live weight, kg	478,4±4,99	5,52	508,0±19,28	6,58

It is seen from table 3 data that milk yield in cows of dairy type was reliably for 995.7 kg, or 24.7% (P0.999), milk butter yield for 39.9 kg (25.0%), milk yield of 4% milk for 998.4 kg (25.0%), milk production for every 100 kg of live weight for 257.2 kg (32.4%) higher than in peers of dairy-meat type.

Cows in the second lactation were also characterized by high parameters of milk productivity (table 4).

**TABLE 4 MILK PRODUCTIVITY OF IMPORTED COWS OF VARIOUS TYPES FOR THE II LACTATION**

Index	Production type			
	dairy		dairy-meat	
	$\bar{X} \pm S\bar{x}$	$C_v, \%$	$\bar{X} \pm S\bar{x}$	$C_v, \%$
Number of heads	29		5	

Milk yield, kg	5155,8±104,5	10,53	4327,4±118,8	5,49
Fat content in milk, %	3,99±0,03	4,30	3,94±0,04	2,01
Milk butter yield, kg	205,7±3,91	9,90	170,4±4,78	5,62
Milk yield of 4% milk, kg	5142,9±97,8	9,9	4262,5±134,9	6,34
Milk production for every 100 kg of live weight, kg	1009,7±25,4	13,06	792,6±6,77	1,73
Live weight, kg	510,7±59,7	6,07	546,0±16,8	6,16

Analysis of the data in table 4 showed that milk yield of dairy-type cows exceeded milk yield of their peers of milk-meat type reliably for 828.4 kg or 19.1% ( $P > 0.999$ ), yield of milk butter for 35.3 kg (20.7%), milk yield of 4% milk for 880.4 kg (20.6%), milk production per 100 kg of live weight for 217.1 kg (27.4%). These data testified that dairy-type cows are characterized by a marked dairy type.

The exploration and analysis of exterior measurements and body indexes showed that these cows have a stretched body, a rather high chest index, indicating to a good development of the chest, they are characterized by proportionally developed physique. For 1 kg of milk 1.03-1.05 feed units were consumed, and for every 100 feed units, 94.72-96.62 kg of natural milk and 93.65-94.45 kg of 4% milk were produced.

## CONCLUSION

1. In the dairy herds of Uzbekistan, cows of Schwyz breed of dairy, dairy-meat and meat-dairy types are distinguished. Milk yield of dairy cows for lactation reliably exceeded for 458.1 and 983.5 kg milk yield of peers of milk-meat and meat-milk types.
2. Schwyz breed cows of European countries with a temperate climate are characterized by a high genetic potential of milk production and ability to its high manifestation in the specific conditions of hot climate of the Republic.
3. It is recommended to select on production types in forming of dairy herds by Schwyz cows, which contributes to the increase of milk production volume and level of profitability.

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## ANALYSIS OF TERMS CONSISTING OF COMMON LITERARY WORDS RELATED TO THE PROBLEMS OF SPECIALIZATION OF MEANING

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### ABSTRACT

*This article discusses the problems associated with the specialization of meaning, the analysis of terms consisting of general literary words, the problems that arise when translating terms into another language, and the scientific work of world scholars who have conducted research in the field of terminology.*

**KEYWORDS:** Terminology, Specific, Nonspecific, Structural, Lexicology, Semiotics, Potential.

### INTRODUCTION

We know that linguistic terminology is seen as an important secondary language component of linguistics and, no doubt, it requires significant attention in the process of training specialists in philology. Therefore, in order to acquire knowledge of a subject, it is said: "By knowing the system of terms, students must master the system of scientific concepts" (IP Romanova, 1970: 244). Thus, the results of this research can be used in the practice of teaching language theory, lecturing on lexicology, sections on word meanings, terminology, as well as teaching "Introduction to Linguistics", "Lexicology" (a brief history of this field in France). .

The terms French lexicography and semiotics were chosen as an object of the research work. The limitation of factual material in this area is due to the fact that linguistics in France has a rich lexical and semantic traditions. In addition, the analysis of the literature showed that there is relatively little research on lexicological and semantic terminology, mainly in the field of grammatical terminology.

However, in this regard, the question arises, is it correct to refer to a dictionary for information on the meanings of terms or non-terms? Are dictionaries (Special dictionaries and annotated dictionaries) an objective informant? Many linguists are positively addressing this problem (R.A.

Budagov, S.D. Katsnelson, M.F. Vinogradov). For example, I.V. Arnold writes: "The dictionary is used as a complete, reliable informant that sufficiently fully expresses the possibilities of application of words and the content of the dictionary" (I.V. Arnold, 1966: 6).

It should be noted, that the dictionary is a theoretically objective source for obtaining information about the content of the word (see: I.V. Arnold, 1966; L.E. Pshenichnaya, 1968). J. Munin describes the word as follows: "The word belongs to the semantic field" Makon ", and also refers to the analysis of the dictionary definition (definition, interpretation) and states that it is a semantically distinctive word sign included in this field" (G. Vounin, 1975) .

In the theory of general lexicography, the need for special linguistic interpretation of words and encyclopedic differences is recognized by most linguists, some linguists equate the definition of special and encyclopedic dictionaries according to terminological lexicography (P.K. Dal, 1963; F.P. Sorokoletov, 1962). We support the views of these linguists in the field of linguistic terminology as well as on the differences between encyclopedic dictionaries.

## MATERIALS AND METHODS

According to J. Munin, his dictionary of linguistics is explanatory, but he also emphasizes the importance of limiting the two main views of the dictionary of linguistic terminology (G. Vounin, 1974). In the field of terminological dictionaries, there are quite a few encyclopedic dictionaries, which we divide into general and specialized dictionaries. General dictionaries include dictionaries that cover most sections of linguistics, for example: O. Dukro, Ts. Todorov, dictionary (O. Dukrot, T. Todorov, 1973) and others. As noted above, specialized dictionaries include only terms in a particular branch of linguistics or terminology that encompasses terms in a particular area of linguistics: for example, the I. Wahek dictionary (I. Wahek, 1974), the V. Velte dictionary (W. Welta, 1974), E Hemp Dictionary (E Hemp, 1964) and others.

Explanatory dictionaries of linguistic terminology, as well as encyclopedic dictionaries, are not the same. Some of them are terms that cover all or most sections of linguistics, while others are terms that cover one or more sections of linguistics. Among the general annotated dictionaries are the following annotated dictionaries: OS Akhmanova's dictionary (OS Akhmanova, 1966), J. Blair's dictionary (J. Blaer, 1963), R. Konrad's dictionary (R. Conrad, Hrag., 1975), J. Mounin's dictionary (J. Mounin, 1974), and specialized dictionaries - R. Dano's dictionary (CR Dagneand, 1965), O. Bohum's dictionary (O. Bohusch, 1972).

To define the analysis of dictionaries and to select terms, we used an explanatory dictionary of linguistic terms and encyclopedic-type dictionaries, and through this we tried to give more information about the term and its specific features. We chose dictionaries for French language terms from encyclopedic dictionaries: "Encyclopedic Dictionary of Language" by O. Dukro and Sh. Todorov; J. Dubois' Linguistic Dictionary. The first is interesting in that it is an encyclopedic dictionary, which contains detailed information about the term, which describes the basic concepts of linguistics, in which the terms that express the basic concepts of linguistics are not included at all or are included along the way. That is why we have turned to the dictionary of J. Dubois, which gave a clear understanding of the terms and covered them in full. From the Explanatory Dictionary of Linguistic Terms, we have chosen J. Munin's Dictionary for French Terms because it is relatively modern and easy to use, and its definitions and commentaries are short, concise, and concise.

The aforementioned dictionaries not only served to select lexical terms, but they also helped in the analysis of dictionary definitions based on comparison.

In the work under study by us, the main method of term analysis is the method of comparing dictionary definitions, which helps the method of linguistic terms. An analysis based on the method of comparing dictionary definitions was conducted to determine whether there were changes in the semantics of common words.

From the analysis it was concluded that the comparative definition of lexical units given in the explanatory and terminological dictionaries of the language.

In the theoretical topic studied by us, in general, the problems of the specific features of the term are considered, the existing possibilities of classification of linguistic terminology are analyzed, its schemes are taken into account, one of the main principles is language at this stage and in its development. The internal structure of science was studied, as well as the gradual study of the general emergence of lexical terminology in the French language tradition. Two research chapters focus on the solution of the following problems: 1) the relationship between the specialization of meanings, how the semantic method of formation of terms moves; 2) in turn, the ways in which the ambiguity of linguistic terms arose were also studied.

It is known that the sharp increase in interest in the study of terminological problems in recent years has led to an expansion of the volume of terminological research. In 1974, at the All-Union Terminology Meeting, SG Barkhudarov stated: "Today, the focus on terms is not a short-term seasonal mobilization, but a day-to-day scientific training, a work that requires regularity. However, it must be acknowledged that linguistics as a linguistic science is actively engaged in the terminology of other Sciences, with little emphasis on private terminology, despite the need for practical and theoretical necessity. Undoubtedly, the analysis of linguistic terms provides an opportunity to study general terminological problems.

Theoretical cases, based on the situation, the diversity of terminology: the analysis of dictionary articles on specific and nonspecific terms and their explanatory dictionaries on the functioning of the language, namely, for the French - "little Robere" (P. Robert, 1970). The purpose of the study is to determine whether terms are listed in glossary dictionaries (taken from linguistic dictionaries), and if so, in what fields they are used: in a common language, in a particular subject, or in most disciplines. The results of the research have shown that the terms we are analyzing are indeed diverse in their composition and in the way they function; on the one hand, the terms are observed only in the field of linguistics, which means that specific terms, on the other hand, the terms used outside of linguistics - these are nonspecific terms.

Specific and nonspecific terms in structural relations are organized as follows:

1. With phrases. Many researchers point out in their work that the organization of terms using word combinations plays one of the key roles in term formation (L.A. Kapanadze, 1966; J.M.Moldajarov, 1972; M.A.Rustamov, 1973). Indeed, there are a considerable number of phrases in lexicological and semantic terminology, and in this terminology being analyzed, phrases divided into two are common, especially attributive phrases, such as: term extensive and sens fundamental.

They can be divided into several types in terms of structure:

- a) one element is terminological and the other is non-terminological: etymology populaire;
- b) Both elements are non-terminological: sens veberte, sensfevrdermental, signification oppositional;
- c) Both elements are terminological:

In semantic relations, word combinations are usually distinguished, their meanings are derived from word combinations and component meanings, and the meanings of some are not derived from component meanings (J.M. Moldajarov, 1972; L.A. Kapanadze, 1966). In our terminology, free word combinations play an important role, for example: les nomspropres, anabuse, semigai; non-free phrases are rare: les noms humains, les noms animes.

It should be noted that in our terminology, almost all phrases belong to specific terms, which means that nonspecific terminology is rare (as a rule, they are borrowed from other disciplines, for example: "associative communication", "measurement space") This can be explained by the fact that, in particular, terminological phrases retain specialized means of meaning. For example, in word combinations, one element is terminological and the other is non-terminological, a means of specialization of meaning, usually resulting in a terminological component, for example: "lexical", "semantic" ("meaning" for a word, "field"), "etymology" (compound for "folk etymology", "historical etymology") and others. In word combinations, both elements are considered terminological, the specialization of meaning is based on an unusual combination, namely, these elements: "distinguishing sign", "word-substitutes". "Famous horses" and others.

2. Units in this group with complex words, for example: mot-portementeau, mot-valise, mot-sle.

This group mainly includes specific terms because complex words have the potential to specialize in meaning, e.g., the means of specialization of meaning in the above-mentioned words are precisely the selected combinations of these components. In particular, many complex words are observed in German lexical terminology.

3. In simple words. These are formed on the basis of elements of Latin-Greek languages: for example, traditional terms - barba risme, arcgaiisme, metarfore, synecdoque; newly formed terms: seme, semanteme, lexeme, sememe, glosseme.

### Research analysis and results

The above hypotheses also suggest that, in turn, nonspecific terms consist of:

- 1. "Common words" are terms and non-terms, for example: tabou, emprunt, sens.
- 2. Terms operating in other disciplines. The composition of this group is not the same, and they also consist of:
  - a) in general scientific terms: marque, actualisation, construction;
  - b) terms mixed with certain disciplines: with mathematics - intersection; with chemistry - Desossiation; with physics - dimension.

It should be noted that groups called "common literary words" come in two ways: universal words and terms, and for us they are important because it is the unifying stage between the general literary lexicon and terminology. Moreover, this group of terms leads us to the problem of the interaction of general literary vocabulary and terminology. We analyze these interactions

in only one aspect, namely: the penetration of common words into terminology is a terminological phenomenon, but not a nonterminational process. Terminated universal words arise as a result of the semantic method, and they are recognized as one of the originators of the terms.

Researchers distinguish several ways in which terms are formed: word acquisition, calcification, word combination, word addition, abbreviation, affixation, and finally, the semantic method. Methods of semantic change of common words have been recognized by D.S.Lotte, one of the leading linguists in term formation. Emphasizing this fact, he says that modern terms are created on the basis of existing words. D.S. Lotte identifies shortcomings in the ways in which complex words, phrases, constructions, and abbreviated words are formed because he does not satisfy the growth of fields in technique and science in naming specific concepts and is limited in his capabilities. Therefore, in the author's view, the role of word change methods cannot be re-evaluated.

In one of his researches, D.S. Lotte analyzes in detail the semantic method of term formation and distinguishes four types of methods of word meaning change in term formation: 1) definition of meaning; 2) descriptive change of meaning (implying expansion or contraction of meaning); 3) change of meaning on similarities of concepts; 4) semantic changes in the confusion of concepts (D.C.Lotte, 1961: 37). D.S.Lotte considers the emergence of the semantic method of term formation in the field of technical terminology, which we limit to linguistic terminology.

VP Danilenko admits that in terminology the semantic method of word formation is more important than in the general literary language, in which it is not considered the formation of a new word in a constant and productive action (V.P. Danilenko, 1977). Linguist VP Danilenko rightly points out that the semantic method of generating terms was not only active in the creation of the terminological system, but has not lost its productivity even today. In this case, linguists usually distinguish three cases of the use of common words in the structure of terminology:

- 1) The word is used in the correct nominative sense;
- 2) The word is used in a transformed sense resulting from the expansion or contraction of meaning;
- 3) The word is also used in a transformed sense as a result of the migration of the name (in terms of confusion and similarity of functions, forms, signs) (S.A. Burlyay, 1974; V.G. Gak, 1971).

To determine these, can it be said that there will be changes in the semantics of common words after the word becomes a term? If so, what exactly? We conducted an analysis based on the home template of the dictionaries. The analysis is summed up by comparing certain lexical units given in terminological and explanatory dictionaries of the language.

The results of the study allow us to determine the terminology of common words in terms of changes in their semantics in three groups that are not identical in size and clearly evaluated:

- 1) General words experience a narrowing of meaning with the transition of meaning to terminology;
- 2) Universal words, in which the meaning is the result of a name change;

3) Universal words, in which the nomenclature of meaning does not undergo a transformation of the type of narrowing of meaning, but is limited only to the definition of meaning.

In this work, we have learned the term “definition of meaning” from D.S. Lotte’s research and use it to interpret and justify in this work (D.S. Lotte, 1961; 38). The point is that determining the meaning is important for all three groups of common words in the terminology. However, in the third group, the transformation of meaning is limited to this.

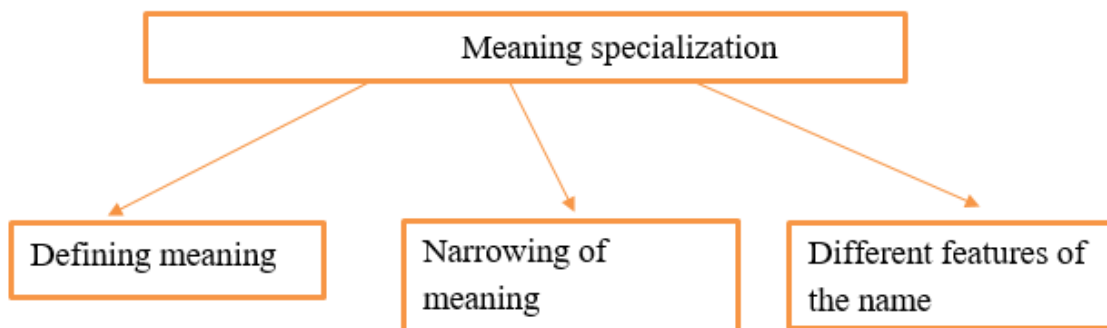
In our terminology, which are mentioned enough, there are groups that have undergone a narrowing of meaning, forming common words, for example: frèquence, expension, signification

Typically, in textbooks on linguistics, the narrowing of meaning is coordinated with the specialization of meaning, and in it the narrowing of meaning is determined by the specialization of meaning (M.D.Stepanova, I.I.Chernisheva, 1975: 39).

In the "Dictionary of Linguistic Terms" by Russian linguist A.S. Akhmanova, these two terms are used as synonyms by "specialization of meaning - in this case, the loss of the general meaning of the word and its replacement by a more narrow (special) word." Then “the narrowing of meaning - the semantic dimension of the word expands in the course of the history of speech use or development in the context” (A.S. Akhmanova, 1966: 448, 463). In such definitions, the specialization of a word constitutes the result of meaning, and they are closely interrelated, in which the narrowing and specialization of meaning are often interrelated, as discussed below.

First, before defining it, it should be noted that, in addition to the narrowing of the meaning of the word, then the specialization of their meanings leads to the terminology of general words, while in general language the meaning does not follow the narrowing of meaning, which means it does not lead to terminology.

Second, all the specializations of meaning constitute a narrowing of meaning by itself. The specialization of the meaning of general words can be attributed not only to the narrowing of the meaning, but also to the definition of the simple meaning and the displacement of the name, which means that the terminology of any word specializes in meaning. The diagram of the relationship of specialization of meaning and narrowing of meaning can be given as follows:



The specialization of meaning takes place through the terminology of universal words and, as a result of its application to a new object, acquires a special scientific definition. In this regard, M. Lenert states: "The process of obtaining special scientific words takes place in this way, words are selected from the general language, and then their meaning expands or narrows by defining them" (M. Lehnert, 1970: 342). As a result of the division of the general semantics of the word in

the common language, two independent meanings emerge: terminological and nonterminological. In turn, the lexical-semantic variant of the word is used in its specialized terminological meanings, and nonterminological variants are used in the general literary language. In this plan, from the point of view of these linguists, it is not sufficiently reliable, that is, it is inseparable from the terminological and non-terminological lexical-semantic variant, which is used in various fields in the analysis of the semantic method of term formation.

This is why there is a mixture of narrowing and widening of meaning in the work of these linguists. For example, J.M. Moldajarov writes: "In the terminology of the modern Kazakh language there are a certain number of lexical units, the use of the meanings of terms has expanded their meaning as a term. In addition to their meanings, these lexical units have terms of a completely terminological nature, that is, they become full, real Kazakh terms "(J.M. Moldajarov, 1972: 152-153). If the author's thoughts are followed, all the meanings of the common words go into a set of terms. However, this is not the case, as general words form their own lexical-semantic variant in terminology, and as a result, terminological variants emerge. If common words are considered outside of terminology, they again have a terminological meaning.

However, this cannot be called an expansion of the meaning of the word. Narrowing and expansion can be talked about in situations where, when the word is not a complete semantics, its only meaning is considered. Reflecting on the narrowing and definition of meaning, D.S. Lotte writes: "Of course, it must be borne in mind that in each case the meaning is characterized by changes in appearance, one of the many meanings of the chosen word is taken into account" (D.S. Lotte, 1961: 38). This is why there is a mixture of narrowing and widening of meaning in the work of these linguists. For example, J.M. Moldajarov writes: "In the terminology of the modern Kazakh language there are a certain number of lexical units, the use of the meanings of terms has expanded their meaning as a term. In addition to their meanings, these lexical units have terms of a completely terminological nature, that is, they become full, real Kazakh terms "(J.M. Moldajarov, 1972: 152-153). If the author's thoughts are followed, all the meanings of the common words go into a set of terms. However, this is not the case, as general words form their own lexical-semantic variant in terminology, and as a result, terminological variants emerge. If common words are considered outside of terminology, they again have a terminological meaning. However, this cannot be called an expansion of the meaning of the word. Narrowing and expansion can be talked about in situations where, when the word is not a complete semantics, its only meaning is considered. Reflecting on the narrowing and definition of meaning, D.S. Lotte writes: "Of course, it must be borne in mind that in each case the meaning is characterized by changes in appearance, one of the many meanings of the chosen word is taken into account" (D.S. Lotte, 1961: 38).

## DISCUSSION

In interpreting the problem of narrowing of meaning, we support the views of scholars-linguists who link the narrowing of meaning with the narrowing of the so-called word function (M.D.Stepanova, I.I.Chernisheva, 19751: 39-40; N.N.Lopatnikova, N. N.Movilovich, 1971: 57). In fact, as a result of the limitation, the field of application of the word begins to name fewer objects, events, and so on than in the common language.

Typically, narrowing of meaning is associated with a decrease in the size of the concept. The concept that has tried to narrow in this concept, which is the basis of meaning, lies on the basis of untransformed meaning and is located in the gender relations. For example, the French word "tabou" has the following definition in "Little Robere":

1.0. Systemed`interdiction de caracterereligieux appliquees a ce quiest considere commesacreouimpur; interdiction rituelle ...

2.0. Eig, surquel on fait silence, par crainte, pudeur.

In J. Munin's Linguistic Dictionary, the term "taboo" has the following definitions:

“TaboudesigneL`interdiction d`un mot pour raisonereligieuses, sociales, culturellesouautres; on L`eviteparL`euptumismeainsi ...” (P. Robert, 1973: 321).

Thus, in the general literary language, the word "taboo" means an imitation of a certain action, object, word, which means that the meaning of the universal word is based on the concept of gender. However, in linguistics, the word "taboo" refers only to the prohibition of words, there is a narrowing of meaning within the boundaries of the subject. In this case, the concept is a transformed meaning, and in this case it is a concept of species. Here is another example. The word "le sens" in French has the following meaning in the common language: 1) content; a) a certain idea: he did not understand the meaning of his word; b) linguistic: the meaning of a word conditioned between a noun and a concept: each word has its own meaning; 2) importance, significance.

It can be seen from the above definitions that the terminological meaning of the word “Sans” was developed on the basis of the first meaning of “...”. There was a narrowing of the first meaning, which was limited within the subject: in linguistic terminology, the word-term "Sans" defines the content of language units, not "content".

In the linguistic terminology we are studying, the next narrowing of meaning takes place: “Sens” begins to express the exact “content of the word” rather than any linguistic units. The delimitation and definition of the meaning of this word is the result of the use of its word combinations. In our examples above, there is “identification” and Ologic quality serves.

In linguistic terminology, the term “Sens” has an ambiguous meaning: first, as noted above, it refers to different levels of language, and in turn, has different semantic complements, and secondly: different interpretations of meaning problems are interpreted differently by different linguists.

The second group of terms (namely, terms that consist of common words as a result of various forms of name migration) is also quite large. Generally, there are two main types of name migration: metaphor and metonymy, and other forms of name migration are subject to them (Yu.S. Maslov, 1975: 127; B.N. Golovin, 1977: 81; V.N. Telia, 1977: 190). In metaphorical situations, the transfer of a name is done on the basis of similarity between objects or events, on top of which there may be similarities of functions or internal and external.

The metaphorization of general words, the method of formation of terms by comparison with metonymy (especially in the early stages of the formation of terminology) is quite common. This has been evidenced in many terminological studies. For example, E.V. Poberejnichenko, G.I. Bejenar, S.A. Burlyay admit that the meanings of metonymic migrations of universal words

are less common in the terminology analyzed by them than metaphorical migrations (E.V. Poberejnichenko, 1974; G.I. Bejenar, 1973; S.A. Burlyay, 1974). Examples of metaphorical migration predominate in the terminology we are studying above

The role of metaphor in the formation of terms is recognized by most linguists. For example, commenting on the metaphorical structure of language, VV Nalimov writes: "When we read a scientific text, we stop and think for a minute about the description of terms, and then we are convinced that they are metaphorical. We have become so accustomed to the metaphor in the study of our scientific language that we do not even take it into account" (VV Nalimov, 1974: 132-133).

Hence, metaphorization is quite common in terminology and is a useful phenomenon. In common language, two forms of metaphor are observed: verbal and linguistic. In this regard, A.A. Reformatsky acknowledges that various linguistic metaphors and metonyms play a key role in accordance with the poetic trop (pictorial means), which are the direct names of things, but tropes are only figurative nicknames (A.A. Reformatsky, 1967: 76).

In terminology, we do not observe such a metaphorical limitation, the idea is about linguistic metaphors.

In the lexical and semiological terminology of the languages under consideration, we have divided the metaphorical migration into several groups.

The first group consists of terms formed as a result of metaphorical migration based on the similarity (external similarity) or structure (internal similarity) of forms, called phenomena.

The linguistic term "field" with the general word "field" has a common semantic sign "the same plane, that is, located in the same plane", and this sign is based on the formation of this metaphor.

Or the French linguist J. Mounin's dictionary "Inventaire des unites lexicales d'une langue visente al'exhaustivite" as defined by the French term "tresor" (G. Mounin, 1974: 329) under the common name "tresor" is recorded (generated) and it has the following definition:

1. Reunion des choses precieuses amasses pour etre conservees (generalment en les cachant).
2. Grandes richesses concretes; masse monetaire importante.
3. L'ensemble des ressources financieres dont dispose un souverain...

II. Fig. 1... accumulation des choses uniles, belles ou precieuses...

2. Ce qui peut etre exploite, employe utilement... (P. Robert, 1970).

The transfer of the name used a set of objects - semantic symbols. This group of terms also includes the following terms: agglomerate (semantique), mot portemanteau, mot-valise, mot-tandeme.

In the second group we include terms based on the similarity of situations, formed as a result of metaphor, for example: the French term "marqueung" in the dictionary of terms by J. Dubois takes the following housewords:

1. On appelle structurels, les morphèmes grammaticaux (affixes, desingens, prépositions, ordre des mots, etc.) qui indiquent la structure syntaxique d'une phrase par opposition aux morphèmes lexicaux. (J. Oubois et al., 1973:311).

1. Personne que marque, appose des marques l'un de l'autre... (P. Robert, 1970:1049).

It is possible to include in this group: "indicateur", "mot-clé", "mot-outil" in the last two examples only the second part of the compound word has a metaphorical relation.

To the third group we rely on the similarity of the process of action, resulting in a combination of terms that are considered metaphorical.

In the last group, we include (a small number of) terms based on the similarity of the two phenomena, which are formed as a result of metaphorization. Let's compare the common word "valeur" and the French term "valeur".

"On appelle valeur linguistique le sens d'une unité définie par les positions relatives de cette unité à l'intérieur du système linguistique. Le sens s'oppose à la signification définie par référence au monde matériel à la substance..." (J. Dubois et al., 1970:506).

I 1.0 Ce en quoi une personne est digne d'estime (quant six qualités qu'elle souhaite à l'homme dans le domaine moral, intellectuel, professionnel).

2.0 Litter. Bravoure ... V. Vailance,

II 1.0 Caractère mesurable (d'un objet) (P. Robert, 1970:1873).

The third group of such words is organized according to the structure of the semantic and semiological terminology of the languages under consideration. Their meanings did not resemble such appearances of meaning changes as the name moved, the meaning expanded and narrowed. This group includes (relatively few) such common words, and their meanings are defined only in terminology.

Studies show that meaning determination is based on the acquisition of specific, scientifically defined words. As a result, these words themselves, which refer to an event that has become a reality, receive two definitions: in this or that science, and in general literary language. These facts (facts) are acknowledged by A.A. Potebnya and their study reflects on the near and future of the meaning of the word. Thus, A.A. Potebnya writes in his study "From Notes on Russian Grammar": "What is the meaning of a word? It is concluded that no other science can discuss this, except in its own indisputable fields of linguistics, and especially that all other sciences cannot reflect their content." For example, when talking about the word "tree," we need to get into the field of botany, but it is possible to interpret causality in the world according to the cause or causal link of the word.

The point is that the meaning of the word generally refers to two different things, the first of which refers to the introduction to the science of linguistics and we call it recent, the second constitutes the subject of other sciences and we can call it the next of the meaning of the word (A.A. Potebnya, 1958: 19). Yu.S. Stepanov, defining the content plan of language on the basis of semantic principles, distinguishes the variants of meaning in two languages: denotation and signification. Studies show that meaning determination is based on the acquisition of specific, scientifically defined words. As a result, these words themselves, which refer to an event that has

become a reality, receive two definitions: in this or that science, and in general literary language. These facts (facts) are acknowledged by A.A. Potebnya and their study reflects on the near and future of the meaning of the word. Thus, A.A. Potebnya writes in his study "From Notes on Russian Grammar": "What is the meaning of a word? It is concluded that no other science can discuss this, except in its own indisputable fields of linguistics, and especially that all other sciences cannot reflect their content." For example, when talking about the word "tree," we need to get into the field of botany, but it is possible to interpret causality in the world according to the cause or causal link of the word. The point is that the meaning of the word generally refers to two different things, the first of which refers to the introduction to the science of linguistics and we call it recent, the second constitutes the subject of other sciences and we can call it the next of the meaning of the word (A.A.Potebnya, 1958: 19). Yu.S.Stepanov, defining the content plan of language on the basis of semantic principles, distinguishes the variants of meaning in two languages: denotation and signification.

## CONCLUSION

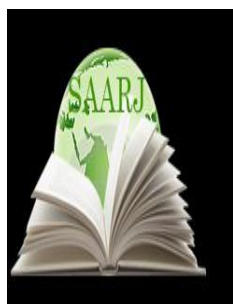
Typical examples of the latter variant are arguments in which the word in its closest sense moves in a general literary language, but in later senses in some particular field of communication, in science, art, and so on (Yu.S. Stepanov, D.I.Emelman, 1976: 231).

When analyzing this group of words, it is necessary to limit the terminological and non-terminological lexical-semantic variants in the interrelation of objects, corresponding to many parameters of the plan of expression. If we consider the specialization of the meanings of these lexical-semantic variants, which underlie their meanings in terms of concepts, we can say that "the scope of the concept remains the same, and the content of the concept remains scientific" (A.S. Kovtun, 1955: 721). This can be explained by the fact that the non-terminological lexical-semantic variant is related to the usual concept, while the terminological lexical-semantic variant is related to the scientific concept. Therefore, the terminological lexical-semantic variant has a special meaning, while the non-terminological lexical-semantic variant has a nonterminological meaning. These two lexical-semantic variants differ in the nature of their scope and meaning.

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## ECONOMIC EFFICIENCY OF MODERNIZATION AND DEVELOPMENT OF WATER FACILITIES IN AGRICULTURE

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### ABSTRACT

*Today, water facilities in agriculture are being repaired and financed from the state budget. However, the allocated funds are insufficient to ensure the stability of the system. Therefore, the development of water resources on the basis of attracting other financial resources, including foreign investment, is a topical issue today. The article develops proposals and recommendations for the rational implementation of measures to modernize water facilities today and in the future and increase the efficiency of the use of resource-saving technologies.*

**KEYWORDS:** *Water Management System, Investment Projects, Water Facilities, Resource-Saving Technologies.*

### INTRODUCTION

In recent years, consistent reforms have been carried out to ensure the efficient use of land and water resources, improve water management systems, modernize and develop water facilities.

At the same time, the shortage of water resources is growing year by year due to global climate change, population growth and economic growth, their demand for water is growing year by year.

Resolution of the President of the Republic of Uzbekistan dated October 9, 2019 "On measures to further improve the water resources management system." the decision paid special attention to the following, ie:

- construction and reconstruction of water facilities with the involvement of international financial institutions and foreign government financial institutions;
- The Ministry of Investment and Foreign Trade of the Republic of Uzbekistan, the Ministry of Finance, the Ministry of Economy and Industry, together with the development of feasibility studies for projects, are tasked with attracting funds from international financial institutions and foreign government financial institutions;
- The Agency for Water Project Implementation under the Ministry of Water Resources of the Republic of Uzbekistan is responsible for the formation and development of projects aimed at improving the water management system, as well as their implementation through the attraction of foreign investment, international financial institutions and foreign government financial institutions. serves for further development.

Attracting investments in innovative research and development activities related to water management in the context of modernization of the economy, the rapid application of its results in production, organizational, economic, technical, technological and social areas to increase production capacity and the use of resource-saving technologies in the future it is desirable that the ongoing reforms become one of the priorities

Indeed, the rational implementation of measures for the modernization of water facilities today and in the future, the introduction of innovative resource-saving technologies in the activities of enterprises, expanding the flow of investment to stimulate innovation, organizational and economic support of measures to encourage innovation and activity in the system The development of scientific advice and practical proposals for improving the mechanisms is one of the current challenges.

## **MATERIALS AND METHODS**

Economic research, comparative comparison, logical and abstract thinking methods were used in the research process.

## **RESULT AND DISCUSSION**

One of the current problems in the country is the supply of water to consumers, its relevance is based on the given quality criteria, optimal management of the process of delivery of water to consumers in irrigation canals, saving water resources, measures are being taken to increase reliability and provide water to every consumer in a timely manner.

In the context of deepening agrarian and economic reforms, there is a growing need to introduce market principles in the use of water in agricultural enterprises and modernize the provision of irrigation and land reclamation services, ie to transform these relations into market-oriented relations.

However, the ability of farms and dehkan farms engaged in agricultural production to fully cover the cost of water supply for irrigation is limited for objective and subjective reasons. The

weakness of the economic situation of most agricultural enterprises and the characteristics of the agricultural sector in general require constant financial support.

In recent years, the issue of improving the reclamation of irrigated lands in agriculture, increasing the economic efficiency of its use on the basis of increasing productivity has been recognized as an important priority, and measures are being taken to invest in it. This is due to the fact that many hydraulic structures and water transmission facilities are now physically and mentally obsolete, and a large part of the existing irrigated land requires groundwater level reduction on the basis of reclamation measures. It is also necessary to invest heavily in the repair and modernization of irrigation networks.

The main solution to these problems is the implementation of a set of measures to encourage investment in the water system. These measures should include, firstly, the legal and economic mechanism of investment attraction, secondly, issues of investment incentives, and thirdly, measures to assess the feasibility and effectiveness of investment, if there are non-returnable investments, then identify sources of their attraction.

Typically, investments in the water management system include relationships related to the use of financial resources directed to the renewal, reconstruction of fixed assets of water management and the development of infrastructure serving it. At the same time, it is expedient to make investments in the water management system in the following main areas:

- construction of new water facilities and repair of existing ones;
- equipping water facilities with modern water-saving equipment
- electrification of water use in water management
- repair and reconstruction of water facilities, providing the industry with qualified specialists.

We know that our government allocates a lot of money from the state budget for the operation and modernization of water facilities. Annually, 5.0 thousand km of main canals, 16.0 thousand km of irrigation and drainage networks, about 10 thousand hydraulic structures and hydro posts at the expense of water consumers' associations and farms are cleaned and repaired in the country. In recent years, 1.5 thousand km of canals, 400 large hydraulic structures, 200 pumping stations, 386.0 thousand hectares of irrigated land have been reconstructed and the technical condition of canals and hydraulic structures has been improved.

Currently, the sources of investment in water management and its subsystems are:

- at the expense of funds allocated directly from the state budget;
- at the expense of state-mediated and guaranteed loans from foreign financial institutions;
- at the expense of funds and technical means provided directly by foreign countries in the form of mutual economic assistance;
- at the expense of funds directed by foreign companies and organizations on a contractual basis;
- at the expense of investment projects implemented at the expense of funds allocated by agricultural enterprises for the reconstruction of irrigation networks located on their territory.

The funds allocated from the state budget are mainly based on the annual budget for the maintenance of the administrative body of the water system, the operation and reconstruction of large waterworks and the repair of inter-farm irrigation networks, the operation and maintenance of major water supply canals. aimed at maintaining power pumping stations and meeting their demand for energy resources.

The analysis shows that positive work has been done in the implementation of investment projects in the water sector. For example, over the past 10 years, more than \$ 1.0 billion has been allocated for the rehabilitation of irrigation and drainage systems, the re-equipment of water facilities and pumping stations, and the automation of water resource management. More than 20 projects of these funds were financed by investment funds.

In Kashkadarya region of the southern regions of the country in the field of water management in 2017 under 2 projects with the participation of the Asian Development Bank and the International Development Association, 4 projects under the project "Improvement of land reclamation in Bukhara, Navoi and Kashkadarya regions" with the participation of the Asian Development Bank. Reconstruction works worth 886 km with a length of 5,161.4 million soums were carried out at the facility. Also, with the participation of the International Development Association on the project "Support of agricultural enterprises Phase 2" was carried out work worth 2243.8 million soums.

In recent years, in the irrigated agricultural region of Kashkadarya region, comprehensive measures are being taken to ensure the sustainable development of all sectors of the agricultural sector and improve the efficient use of water. In this regard, taking into account the negative consequences of the situation in the lower reaches of the Amudarya over the past 40 years, it is necessary to improve the ecological and reclamation of irrigated lands and improve water efficiency. In the Action Strategy for the further development of the Republic of Uzbekistan for 2017-2021, including ".... further improvement of land reclamation, development of reclamation and irrigation facilities "noted. It is important to carry out scientific research to increase soil fertility through the implementation of this task, including the development of resource-efficient irrigation and water use methods.

Resolution of the President of the Republic of Uzbekistan PF-4947 "On the Action Strategy for further development of the Republic of Uzbekistan for 2017-2021", Decree No. PF-3932 of October 29, 2007 "On measures to radically improve the system of land reclamation", Resolution No. PP-1958 of April 19, 2013 "On measures to further improve the reclamation of irrigated lands and rational use of water resources for 2013-2017", Resolution of the Cabinet of Ministers No. 176 "On measures to effectively organize the introduction and financing of drip irrigation and other water-saving irrigation technologies" to ensure the implementation of the resolution it was noted that the issue of water and its efficient use is becoming more urgent, the introduction of modern, intensive methods of solving the water problem in our country is a requirement of the times, and large-scale work is being carried out in Kashkadarya region.

Saving water in times of water scarcity requires increasing the efficiency of water use, preventing water from seeping into the ground and being wasted. Due to the imperfection of the existing irrigation methods, the level of water use for irrigation remains low. Fields are being unevenly moistened, irrigation standards are rising, and salinization and swamping of soils are taking place.

The following table analyzes the data on capital investments in recent years for the cleaning of inter-farm canals and hydraulic structures, repair of hydro posts in the water management system of Kashkadarya region (Table 1).

**TABLE 1 INFORMATION ON THE RESULTS ACHIEVED AND KEY INDICATORS IN THE WATER MANAGEMENT SYSTEM OF KASHKADARYA REGION**

Indicators		unit of measurement	2017 year	2018 year	2019 year
On water resources	allocated water limit	million m3	6551,5	4939,0	4587,0
	the amount of water obtained in practice		6898,3	4617,0	5087,2
	percent	%	105,3	93,5	110,9
Cleaning of inter-farm canals	plan	km	168,4	218,3	160,5
	in practice	km	187,7	230,6	165,8
	percent	%	111	106	103
Cleaning of hydraulic structures	plan	numeral word	374	463	270
	in practice	numeral word	385	474	275
	percent	%	103	102	102
Repair of hydroposts	plan	numeral word	268	304	211
	in practice	numeral word	281	309	218
	percent	%	105	102	103
According to the reclamation program	Allocated funds	million soums	43728,0	52620,3	52744,3
	Disbursed funds	million soums	43980,0	52620,3	55393,3
	Area with improved reclamation condition	Ga	25709	26564	31215
On capital construction	Allocated funds	million soums	27663	43610,5	69900
	Disbursed funds	million soums	27663	45516,1	73249,8
	percent	%	100	104	105

Table 1 shows the indicators of the use of water systems in agriculture of Kashkadarya region in 2017-2019, which shows that in 2017 and 2019 more water was received than the allocated limit, and the plans for cleaning inter-farm canals were exceeded. Also, cleaning of hydraulic structures, repair of hydroposts in the water management system has been completed. In 2019, 31215 hectares of degraded lands were improved due to the funds allocated for land reclamation under the regional programs.

In recent years, flexible hose irrigation has also been widely used to increase the efficiency of water use in agriculture. In this way there is no need to take temporary bullet holes in the pile. As a result, on the one hand, if the hectare is complete, on the other hand, water is provided in equal proportions from all fields. When using such hoses, labor productivity is reduced by 3-4% compared to irrigated with a furrow, and it takes 11.8 working days to irrigate one hectare of land (in the normal way, 12.2 working days).

## CONCLUSION

We consider it expedient to take into account the following specific features of the system in the modernization and introduction of innovations in water management facilities:

- Scattered objects of water management organizations and their distance from each other;
- fixed location of water facilities and their low level of mobility;
- Seasonal nature of water use in the water management subsystem and uneven distribution of water reclamation funds throughout the year;
- Specificity of the organization of operational processes related to water supply;
- the duration of the growing season and the timing of the operation of water management organizations and hydraulic structures, the direct relationship of reservoirs, canals, irrigation, pumping stations and other structures to the supply of water to agriculture;
- The activities of water management organizations are related to the management of water resources of an extraterritorial nature, which in turn requires high qualifications and strict responsibility from managers and specialists.

In the future of our country, it is necessary to strengthen the material and technical base of the industry to form and develop the water management system within the market requirements. To do this, it is necessary to provide the water industry with modern buildings, all kinds of modern equipment and technologies, hydraulic structures and other means of production. It is necessary to increase the investment attractiveness and activity of the network for the implementation of measures such as modernization of the network, repair of water facilities and facilities, construction of new ones.

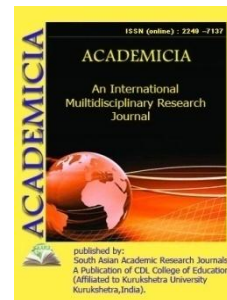
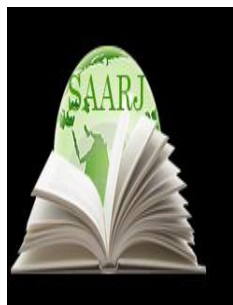
In summary, state-sponsored and guaranteed loans from foreign financial institutions are mainly used to repair and modernize obsolete large pumping stations in the region, which consume large amounts of energy resources. directed to reconstruction.

It is also necessary to modernize and develop water facilities in agriculture, automate the management of large water facilities on the basis of digital technologies, widely introduce modern technologies that save electricity and other resources, attract foreign investment and targeted and efficient use of allocated funds. suitable.

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## A STUDY ABOUT THE NATURAL DYE USING BIXA ORELLANA ON KHADI COTTON FABRIC WITH FRAGRANCE FINISH

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### ABSTRACT

*The dyestuff of the industries plays a major role in the discharge of wastewater. The wastewater will pollute the land resources, to overcome with that alternative method of eco-friendly natural dyeing was used. In the present study, Bixa Orellana (Bixaceae) is used to dye the textiles. During heating, increased yellowness and decreased redness were observed. It causes less toxicity and generally exhibits better biodegradability and compatibility with the environment. Khadi is handmade, durable, long lasting and organic in nature so it has a worldwide appreciation in the world. It allows ample amount of air to pass over and around the body due to its weave structure. It has the capacity to absorb moisture. Thyme oil can be used to stimulate the mind, strengthen memory and concentration and calm the nerves. The aromatic finish is used to enhance the value of the product. The study indicates that almost all variables showed their performance and findings of the fabric.*

**KEYWORDS:** Biodegradability, Bixa Orellana (Bixaceae), Thyme oil, Toxicity, Aromatic finish.

### INTRODUCTION

Textiles have always played an important role in the progress of human culture by being at the forefront of both technological and artistic development. (1) The main threatening problems in the textile industrial world facing today in the form of wastewaters and atmospheric gases have been found to be polluting the neighboring area. (2). The use of non-allergic, non-toxic and eco-friendly natural dyes on textiles have become a matter of significant importance due to the

increased environmental awareness in order to avoid some hazardous synthetic dyes. (3). Natural dyes produce very uncommon, soothing and soft shades as compared to synthetic dyes. (4). Khadi Cotton has the unique property of keeping the wearer warm in winter as well as cool in summer season. It allows ample amount of air to pass over and around the body due to its weave structure. It has the capacity to absorb moisture. (5). Annatto dye is the second natural additive color that is used in the world and demand for this color is increasing (6). It is used as a cosmetic, dye, food, hairdressing, medicine, ornamental tree, and vitamin source says that (7). The Dyed fabric has a bright color from orange to yellow. Extracted colorants include bixin, norbixin, and ingredients of the carotenoid family.(8) Thyme oil can be used to stimulate the mind, strengthen memory and concentration and calm the nerves. Thyme oil can keep insects and parasites such as mosquitoes, fleas, lice, and moths away (9). Simmond siaceae is mostly a woody, evergreen, perennial shrub that produces small seeds, which contains waxy liquid very similar to spermaceti (10). It is used as a carrier or massage oil (11). In the present study, the dyes extracted and applied on the khadi cotton fabric with the natural finishing of herbal aroma oil and to evaluate their efficiency as a coloring material.

### **OBJECTIVE OF THE STUDY**

The objectives of the study are mainly related with the qualitative dimensions of the fabric

1. To look at the current state of the selected the herbs used for the dyeing and finishes.
2. To focus on dyeing methods and finishing techniques
3. To evaluate about the wash durability of the samples according to their performance.

### **MATERIALS AND METHODS**

#### **SELECTION OF FABRIC AND DYE EXTRACTION**

The 100% khadi cotton was purchased from Padiyur Sarvodaya Sangh, Tirupur. The GSM of the fabric was 103 gm/cm<sup>2</sup> and Thickness was 33 mm. Bixa Orellana leaves were collected (i.e 5 kg flower peels = 600 gms of dye powder) and wash 2-3 times thoroughly with tap water to remove dust particles and seeds and the substance separated. Grind the extract with 7 liters of water to form a pasty condition and the substance to deposit in the bottom of the conical flask. Filter the remaining substance using ordinary and whats Mann no.1 filter paper. Then it is allow drying in the shade for one week then it is formed into flakes and grind it to form a powder.

#### **DYEING AND FINISHING OF THE SELECTED FABRIC**

In the present study, for the dyeing, Dye (%) is 1.5%; material liquor ratio is 1:40. The rock salt was act as an electrolyte (1-gpl) temperature maintained at 90<sup>0</sup>c and time was 30 minutes. At last softener was used to soften the fabric with the mixing of palm oil, coconut oil, gingerly oil. Washed the fabric with cold water and dried the fabric in the shade for 24 hours. For the fragrance finish, the Material: Water ratio is 1:40, the binder is citric acid(2-3 drops), Carrier oil jojoba (50%), thyme oil(50%) and Time= 30 minutes. Immersed the fabric in the solution and continuously stir the fabric. Rinse the fabric in the cold water and allow the fabric to dry in the room temperature using the pad dry cure method.

**RESULT AND DISCUSSION****1. EVALUATION OF AIR PERMEABILITY**

S.NO	SAMPLES	DYED		FINISHING	
		Air permeability(cc)	Air resistance(sec)	Air permeability(cc)	Air resistance(sec)
1	S	59.17	0.0169	55.23	0.0181

While the fabric is increased in Air permeability after dyeing when compared to the finished fabric. The air permeability is low for the fragrance finished samples. The air resistance is very low for the samples due to nature of the fabric.

**2. EVALUATION OF WATER PERMEABILITY (DROP TEST)**

S.No	Sample	Drop test in seconds
1	S	6

If the water absorbency value is more the water will absorb slowly, the samples show that the value is higher, so the sample absorbs the water slowly.

**3. EVALUATION OF SPECTROPHOTOMETER**

S.NO	SAMPLE	L*	a*	b*	c*	h*
1	S	73.37	31.58	73.41	79.92	66.69

The dyed sample show that the different values of L, a, b, c, h. The value “h” indicates the hue.

**4. COLORFASTNESS TO WASHING**

S.NO	Colorfastness to washing	S
1	Change in color	3-4
2	Cotton range	4

Colorfastness- Grey scale rating:- change in color: 5- no change, 4- Slightly changed, 3- Noticeably changed, 2- considerably changed, 1-much changed. From the above statement, the sample S shows that the change in color is noticeably changed.

**5. COLORFASTNESS TO CROCKING/RUBBING**

S.NO	Colorfastness to rubbing	S
1	<b>DRY</b>	3
2	<b>WET</b>	4
3	Cotton range for staining	3-4

Staining: 5- No staining, 4- slightly stained, 3- noticeably stained, 2-considerably stained, 1- much stained. In the dry & wet rubbing technique, the sample S shows that the staining is noticeably stained in dry technique. From the above statement, the dyes are slightly and noticeably stained in the wet fabrics.

**6. COLORFASTNESS TO PERSPIRATION**

S.NO	Colorfastness to perspiration	S	
		Alkaline	Acidic
1	Change in color	4	4
2	Cotton range	4	4

From the sample S shows that the slightly changed in the perspiration of acidic and alkaline.

**7. COLORFASTNESS TO LIGHT**

S.NO	Colorfastness to sunlight	S
1	Fading 20 hours	4

Colorfastness- Grey scale rating:- change in color: 5- no change, 4- Slightly changed, 3- Noticeably changed, 2- considerably changed, 1-much changed. The samples S, shows that there was slightly change in sunlight.

**8. EVALUATION OF FRAGRANCE FINISH**

The quality assessment was carried out with the help of 25 members who have the knowledge on fabric quality.

S.NO	SAMPLES	BEFORE WASH	After 10 WASHES	After 20 WASHES	After 30 WASHES
1	S	5	4	3	1

The following results were obtained for the washing fastness of the fragrance finished samples. Colorfastness- change in smell: 5- no change, 4- Slightly changed, 3- Noticeably changed, 2- considerably changed, 1-much changed.

The fragrance finished sample before wash has no change in smell, after 10 washes the sample S has slightly changed in smell. After 20 washes, the sample has S has noticeably changed in smell. After 30 washes, the sample has S has considerably changed in smell

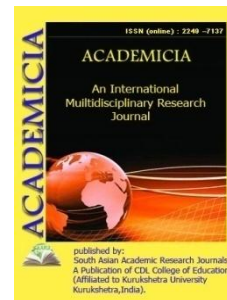
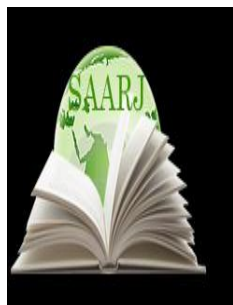
**CONCLUSION**

The khadi fabric was representing India, it is a hand spun and hand woven fabric. The khadi adapt the climatic conditions for due to the seasons (warmer and cooler). The current research is based on the khadi fabric with the natural dyed and fragrance finish. It is also used for the promotion of the khadi fabrics for the sales and marketing. It is eco-friendly; natural based dyeing technique is applied on the fabric. The Dyed fabric has a bright yellow color. The dyes have natural antibacterial and antifungal activities. It is not allergic, non-toxic to the human beings. It is also used in the formation of lipsticks and food coloring agents. The fragrance finish of thyme oil can keep away insects, pests and also used to keep away parasites that feed on the human body like mosquitoes, lice, bed-bugs that attack clothes like beetles and moths.

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## EXPERIMENTAL ANALYSIS OF ROLLER MACHINE TRANSMISSION MECHANISMS

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### ABSTRACT

*The article presents the results of experimental studies of two transfer mechanisms for roller machines with an arc-like movement of the centers of rotation of one of the working shafts, one mechanism consists of two gears and the other gear-lever differential transfer mechanism (GLDTM). in comparison, the advantages of GLDTM are shown. On the other hand, many studies [3] have shown that the use of machined material as a factor forcing the driven shaft to rotate when using roller machines without gears has a negative impact on the quality of the machined material and rapid wear of shaft coatings. This is because the torque passing through the working shafts is transmitted under the influence of frictional forces through the working shaft coatings and the material being machined.*

**KEYWORDS:** Roller machine, working shafts, transmission mechanism, gear-lever differential transmission mechanism, gear wheels of tire.

## INTRODUCTION

Test studies have been conducted to determine the effect of the transmission mechanisms used on a machine with a vertical center of rotation of one of the working shafts on the quality of the processed material and the longevity of the coating of the working shafts [1, 2]. The tests were performed on a compression roller machine by placing two types of transmission, first a two-gear transmission and then a gear-differential transmission. Tests have shown that TRDUM is more useful when applied to a roller machine.

Studies have shown that the use of a gear-differential transmission mechanism on machines with variable shaft spacing of working shafts eliminates geometric slippage between the working shaft and the work piece due to variable shaft spacing, ensuring synchronous rotation of shafts regardless of variable shaft spacing shown [1, 2].

On the other hand, many studies [3] have shown that the use of machined material as a factor forcing the driven shaft to rotate when using roller machines without gears has a negative impact on the quality of the machined material and rapid wear of shaft coatings. This is because the torque passing through the working shafts is transmitted under the influence of frictional forces through the working shaft coatings and the material being machined.

## EXPERIMENTS AND THEIR RESULTS

Compressor roller machines use flexible absorbers (monsoons) that absorb liquids to better absorb moisture from the processed material (leather raw material) [4]. They are made as a cylindrical coating worn on the side in addition to the working shafts, or as an endless tape that wraps around the compression and holding shafts. The tires used vary in thickness and material. Roller compression machines are made of four-layer wool fabric with a thickness of 8 mm, the base of which is mixed with 20% apron. Foreign-made tires with a thickness of 30 mm made of pure wool are also used [5].

VOPM-1800 K and 07599 / PZ compression roller machines are used in tanneries in Uzbekistan. In one of them suknom - 0 (article № 77, TU 17 - 6057-73, sukno BM), in the other 07599/877 E2 4 mm thick and 4 times rolled on a shaft synthetic cover (sukno LATs) are used [6].

Depending on the appearance of the material to be processed (leather raw material), the pressure generated between the diameters of the compression shafts, the compression speed of the machines used, the tires last from 2 to 4 months, sometimes even less [1, 5].

The service life of monsoons is mainly related to their wear. During operation, the tires of the working shafts of the compression machines are worn and their thickness is reduced.

There are several classifications of tire wear of compression shafts. The most common types of abrasion include abrasive, adhesion, fatigue abrasion, corrosion, cavitation, and others [7].

Tests were conducted to determine the effect of one of the working shafts on the wear of the shaft cover (including the wear of the workpiece with a violation of the quality of the workpiece) of the transmission mechanism of machines with a circular centering roller.

Experimental research was carried out on an experimental roller compression machine installed in the laboratory of the theory of machines and mechanisms of the Institute of Mechanics and Seismic Strength of Structures named after M.T. Urozbaev of the Academy of Sciences of the Republic of Uzbekistan.

The pressing machine consists of two compression shafts, the surface of which is wrapped with four layers of monsoons (sukno LASH). The lower compression shaft is mounted on the stand so that it can rotate around its own axis. The upper clamping shaft has a rotation around its axis and the center of rotation is mounted on a support using a lever that allows arc movement.

The drive of the machine consists of an electric motor, a clutch, a worm gearbox type RChU-100, a chain drive for the drive compression shaft.

The center of rotation of one of the working shafts is a gear-lever differential transmission between the compression shafts of a machine with an arc-moving roller. The design of the machine allows you to replace this mechanism with a transmission mechanism consisting of two gears.

The test compression machine has the following technical characteristics:

- Diameter of compression shafts (without monsoon), m 0,125;
- Thickness of four-layer coating (without loading), m 0,016;
- Working width of compression shafts, m 1,0;
- Speed of the compression shaft, m / s 0.3;
- Working pressure between compression shafts, n / pog.m 6000.

Erosion size is determined in different ways. The weight of small details is determined by the method of weighing. Erosion is also detected by pneumatic micrometry, lever device, clock-type indicator, induction sensors, strain gauge and other methods.

One of the most common methods of determining the magnitude of deflection is the micrometric measurement method. This method is used to determine the greater absolute wear of more details. This method is based on measuring parts using mechanical contact, or on other instruments before and after eating. A micrometric measurement method was used to measure the wear of the tires [7].

It is somewhat difficult to measure the wear of the upper compression shaft cover because the upper shaft has an arc motion in addition to the rotational motion. The tires of the shafts have irregularities, making it difficult to measure the magnitude of erosion in a single location. To

measure wear, it is very convenient to determine the sum of the wear of the upper and lower compression shafts at once, leaving uncoated surfaces at the edges of the shaft, which gives the sum of the wear of the coating before and after the test. One end of the monsoons is glued to the shaft with glue to prevent the tire from slipping on the shaft.

Measurements are made along four lines corresponding to the cladding surface of each compression shaft. Each compression shaft is divided into 4 lines of 90° each along the circumferential surface. The upper and lower shafts are set so that the lines match in a checkerboard pattern by 45°.

To measure the magnitude of the wear, up2 and 3 straps (GOST 882-64 with a scale of 0.00002 and 0.00005) were used.

Measurements were made after 8 hours of operation on 8 lines of the tires surface of the compression shafts.

In order to increase the reliability of the test results and to bring it closer to the production conditions, the monsoons were moistened with water during the test.

The test was carried out on a compression roller machine using a gear mechanism consisting of two gears and a gear-differential transmission mechanism.

Measurement of coating wear was determined by calculating the initial diameter of the working (compression) shafts (pre-work size) and after operation for a certain period of time.

Based on the measurement results, a time-dependent measurement graph of the erosion rate of the monsoons was constructed (Fig. 1).

Evaluation of material abrasion using linear, mass, energy integral intensive abrasion is accepted [8].

Let us assume that the thickness of the brittle layer is formed by the erosion of the Lish ratio to its friction path,  $J_n$  is more consistent with the integral linear erosion intensity.

$$J_n = \frac{h_{eu}}{L_{uu}}$$

The change in size is based not only on wear, but also on the residual plastic deformation of the coating material, the intensity of friction of the bonded surfaces of machine parts depends on the duration of the work.

As can be seen from Figure 1, the wear of the compression shaft in the case under consideration varies at different time intervals. The erosion process can be divided into the following periods:

- 1) The initial period or the interval between  $O_a$  and  $O_b$  processing times;
- 2) Setting the wear period or the normal operating time interval of  $ad$  and  $bs$ ;

3) Decay period or accidental decay between *ce* and *df* times.

During operation, the wear of the compression shafts occurs almost uniformly at significant speeds in the transmission mechanisms consisting of two gears and in the gear mechanisms of the gear-type type. This explains why in the initial periods, erosion takes place in the sedimentary areas, i.e., in the residual deformed areas of the coating.

During the set erosion period of the compression shaft coating, the erosion in both transmission mechanisms is uniform and smooth, because after the operation period, the coating surfaces undergo pure erosion.

During an emergency landslide, the rate of landslide increases sharply. This is explained by the fact that from this moment the wear of the coating of the compression shafts increases due to repeated deformation and fatigue. In addition, defects appear on the coating surface of the compression shaft during this period. With the appearance of defects, a sudden deterioration of the surface of the monsoons is observed, as well as overlapping in the defective areas and increasing the unevenness of the surface. We determine the linear intensive erosion of the clamping shaft coating. The path of friction  $L_w$  is determined by the following formula:

$$L_w = V_{ob} \cdot t$$

Where  $V_{ob}$  - shaft speed;

t - the eating time.

The coating surface of the compression shaft is  $h_{ey} = 0,00295$  m,  $t = 126000$  s when a gear mechanism consisting of two gears is used during operation.

From the formulas

$$J_{1m} = \frac{0,00295}{37800} = 78 \cdot 10^{-8}$$

When using a gear-differential transmission mechanism

$$h_{ey} = 0,00291 \text{ m, } t = 126000 \text{ s}$$

$$J_{1mp} = \frac{0,00291}{37800} = 76,98 \cdot 10^{-8}$$

M,  $t = 990000$  s if there is a gear consisting of two gears in the range of the compression shaft on the friction surfaces during normal operation, m,  $t = 1440000$  s if a gear-lever differential transmission mechanism is used.

From this

$$J_{2m} = 1,35 \cdot 10^{-8}$$

$$J_{2mp} = 0,925 \cdot 10^{-8}$$

In the event of an emergency slip, the friction surface will have the following parameters  $m$ ,  $t = 126000$  s,  $3$  m,  $t = 126000$  s, respectively, according to the operating mode of the compression shaft in the transmission consisting of two gears and a gear differential transmission

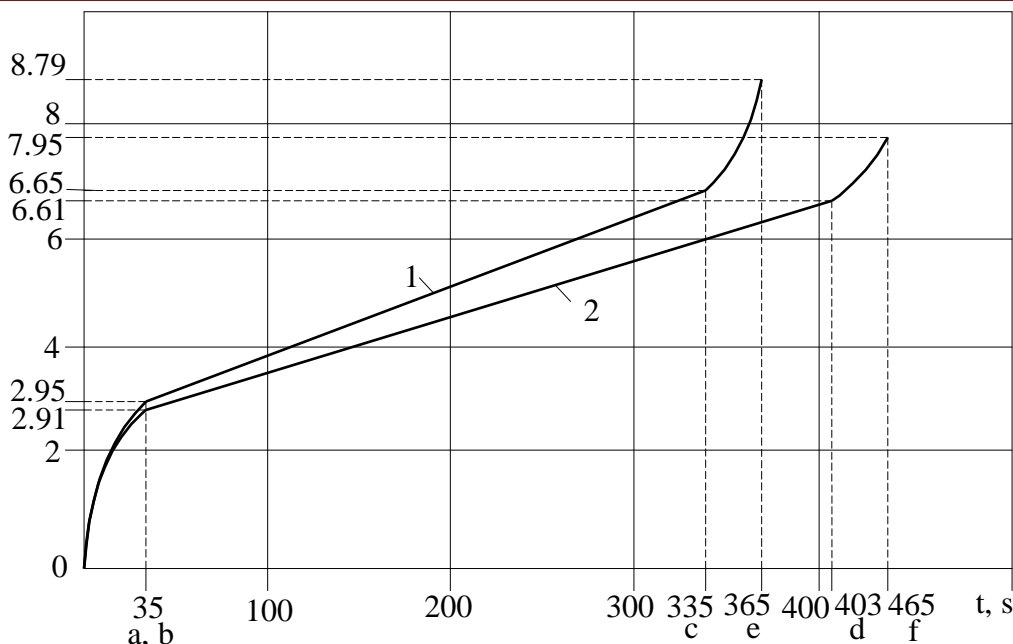
$$J_{3m} = 4,84 \cdot 10^{-8}$$

$$J_{3mp} = 3,25 \cdot 10^{-8}$$

It can be seen from the above formulas that the wear intensity of the compression shaft coating is almost uniform during the development process, with very little difference. This is explained by the fact that in this case the share of deformation is greater than the slip, the share of slip is less if a gear-lever differential transmission is used compared to a two-gear transmission, based on a small difference in slip intensity.

During the set slip period, the longevity of the working shaft coating is determined by the slip intensity, which is almost 40% lower in gear-transmission ( $J_{2tr}$ ) than in two-wheel transmission ( $J_{2t}$ ).

This is explained by the fact that when using a gear mechanism consisting of two gears with varying distances between the axles, mechanical sliding occurs between the working shaft tires and the work piece. When the distance between the shafts is increased, the drive shaft remains, and when it is shortened, the angle of rotation of the drive shaft is ahead of the guide shaft.



**Figure 1. Dependence of the coating of the compression shafts on the wear between the shafts when using different transmission mechanisms: 1-when using a transmission mechanism consisting of two gears; when using a 2-toothed differential transmission mechanism.**

The erosion intensity during the Aryan eruption occurs with a small difference compared to the set erosion period, but differs greatly from the start-up time. In both cases the erosion intensity is large. This is explained by the fact that the contribution of decay in the nature of fatigue increases in this case with the appearance of defects. However, the crushing intensity in the transmission mechanism of a machine with a center-of-motion spring-loaded roller is less than that of a transmission consisting of two gears. Based on this, it is possible to indicate the cause, just as in the period of installation of shaft coatings.

## CONCLUSION

Thus, it is proved that the properties of the transmission mechanism have a significant effect on the wear intensity when the center-of-rotation arc-roller machines use a transmission mechanism.

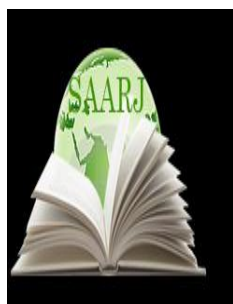
When the center of rotation of one of the working shafts uses a gear-differential transmission mechanism on machines with a spring-loaded roller, the compression shafts last 1.4 times longer than two-gear gears.

Also, the wear of the shaft cover is directly proportional to the wear of the workpiece, which shows an increase in the quality of the material when using a gear-differential transmission mechanism on machines with a roller with a center of rotation of one of the working shafts.

In short, when using the gear-lever differential transmission mechanism we offer, it can be used to perform the technological process with high quality, improve the quality of the processed material and increase the production performance.

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## COMMUNICATIVE CULTURE AND PRAGMALINGUISTIC FEATURES OF INTERPERSONAL COMMUNICATION

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### ABSTRACT

*This article defines the communicative culture and pragmalinguistic features of speech etiquette in situations of greeting and farewell in Uzbek-English communicative cultures, substantiate the reasons for verbal and non verbal variability of their politeness. Interpersonal Communication came to being when men began to exchange ideas and thoughts to one another. Interpersonal Communication is a kind of communication in which people communicate their feeling, ideas, emotions and information face to face to each other. It can be in verbal or non-verbal form. Interpersonal communication is not only about what is said and what is received but also about how it is said, how the body language used, and what was the facial expression. In simple words the communication between two people is referred as Interpersonal communication.*

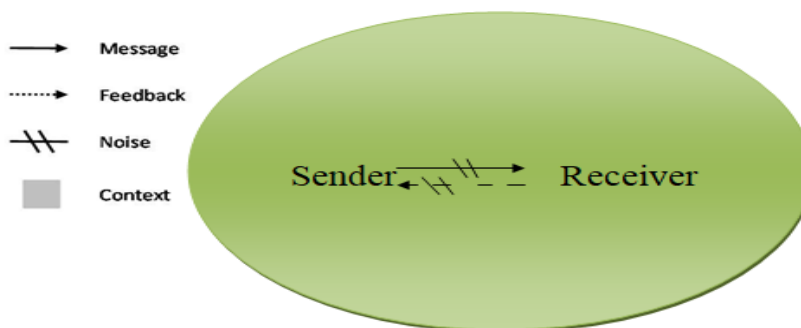
**KEYWORDS:** Communication, pragmatics, etiquette, interpersonal, culture, verbal, non verbal, pragmalinguistic

### INTRODUCTION

This article defines the communicative culture and pragmalinguistic features of speech etiquette in situations of greeting and farewell in Uzbek-English communicative cultures, substantiate the reasons for verbal and non verbal variability of their politeness. The term "culture" refers to the complex collection of knowledge, folklore, language, rules, rituals, habits, lifestyles, attitudes, beliefs, and customs that link and give a common identity to a particular group of people at a specific point in time. All social units develop a culture. Even in two-person relationships, a culture develops over time. In friendship and romantic relationships, for example, partners develop their own history, shared experiences, language patterns, rituals, habits, and customs that

give that relationship a special character—a character that differentiates it in various ways from other relationships. Examples might include special dates, places, songs, or events that come to have a unique and important symbolic meaning for two individuals. Communicative competence is introduced in the structure of social competence as one of the constituent elements, along which the operative, social, verbal, sociopsychological (orientation in inter individual relations) competences as well as ego competence (knowledge of oneself) (Kunitsina, 1995). V.N. Kunitsina emphasized the unity of communicative and verbal competences in their practical displays, determined verbal competence as the relevance of statements, accounting for the context and the subtext of a statement, absence of difficulties in verbal and written speech, variability of information interpretation, good orientation in the sphere of assessment stereotypes and patterns, multitude of senses of used concepts, and metaphoricalness of speech.

Interpersonal Communication came to being when men began to exchange ideas and thoughts to one another. Interpersonal Communication is a kind of communication in which people communicate their feeling, ideas, emotions and information face to face to each other. It can be in verbal or non-verbal form. Interpersonal communication is not only about what is said and what is received but also about how it is said, how the body language used, and what was the facial expression. In simple words the communication between two people is referred as Interpersonal communication. It is one of the basic means of communication. The Interpersonal communication skills can be improved by practice, Knowledge and feedback. The Interpersonal Communication takes place when two people are at same place and aware of each other's presence, no matter how unintentional or unpremeditated it is. It may not be in the form of speech, it may be a gesture, an expression, the dress, or the body. The essential factor is there should be a message and it should be send by the sender and it should be received by the receiver.



**FIGURE 1 INTERPERSONAL COMMUNICATION**

In the given figure we analyzed the process of Interpersonal Communication between sender and receiver. The sender is the person who sends the message and receiver is the person who receives the message. The message is the idea conveyed through speech, body language, gestures (verbal and non verbal), noise refers to any sort of distortion causes to the message while it is sent,

feedback is the respond of the receiver, it comprises the message he sends back, the context is how the message is being interpreted is mostly depend on the context he receives the message and the channel is the means through which communication happen. The message is sent and received through the channel. For example,

- *Alice texts to her mother "Mom I miss you much, I will back soon" when she studied abroad, mother replied texting sms message "Me too, I will wait for you impatiently"*

## ANALYZING

Sender - Alice

Receiver – her mother

Message- Mom I miss you much, I will back soon

Noise- background sound in getting message

Feedback- Me too, I will wait for you impatiently

Context- Abroad, and emotions of Alice and her mother

Channel- cell-phone, message

## MATERIAL AND METHOD

In the English and Uzbek languages addressing words are similar in some cases; however, there are several cultural peculiarities that significantly differ from each other. In Uzbek culture, when addressing strangers the words *aka*, *opa*, *xola*, *otaxon*, *amaki* are commonly used. They call even strangers with family member words such as *otaxon*, (*father* for old men), *amaki* and *aka* (*uncle*, *brother* for middle-aged men), *uka*, *o'g'lim* (*brother*, *son* for young men). The main reason for this type of addressing is that "*family*" reflects Uzbek cultural values. Besides, collectivism is preferred in families that grandparents, parents, grown children and other family members live together. In English culture, the words such as Miss, Sir, Madam, Mrs are used to express respect to the interlocutor. "*Mrs*" is particular for married women who is the strange or unknown person for you and it is used to show your respect in communication. In Uzbek culture, use "*opa*", "*xola*" or in literary pictures use "*xonim*" especially in some performances, literary books or movies, but, in daily communication rare usage of the word "*xonim*".

### For example 1:

- *Coming back to the past I see myself a shy girl of nineteen with straight, short hair and youthful, unpainted face, dressed in an ill-fitting coat and shirt and in jumper of my own creation, trailing behind Mrs. Van Hopper like a little horse.* Du Marier D. "Rebecca"

### For example 2:

- *Zaynab opaning uylari shumi? — deb so'radi Tolibjon.*
- *Ha, shu. Keling, tog'a.* Said Ahmad "Jimjitlik"(Silence)

(Translation: "Is this the house of Mrs Zaynab?" asked Tolibjon, "Yes sir, this is")

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## ANALYZING

The first example taken from the story “Rebecca” by Du Marier D for comparing and contrasting the equivalents of the word “Mrs” and “xonim, opa” with the next Uzbek example “Jimjitlik” (Silence) by Said Ahmad. Here we added one more equivalent of the word “Sir” and “tog’a. In direct address, a woman with the title “Mrs” may be addressed *Mrs [Lastname]*, or with the stand-alone *Madam* or *Ma'am*, although the latter two are more often used for any adult woman, regardless of marital status, in modern conversation. There is not such woman addressed callings in the Uzbek language, from the old period Uzbek people tried to use *opa*, *xola*, *xonim*, *singlim* for all women even they are married or single one, there is no any differences between their marital status, the meaning is the same. “Mrs. Van Hopper” is the with “Zaynab opa”, in communication Uzbek people do not use *xonim* (*xonim* means Mrs or misses). In conclusion, it is essential to note that speech etiquette of different nations depends on their cultural background, life style and world perception. Therefore, speech etiquette in English and Uzbek has its national-cultural peculiarities which are specific and vary in many cases.

A common problem for impoliteness, rudeness, and swearing research is that all three phenomena are impossible to define universally because all are culturally and personally determined. Classic approaches to politeness (Brown and Levinson 1987 [1978]) frame interpersonal communication as situations in which a speaker’s motivation is to promote social harmony and to avoid threatening the face (Goffman 1967) of a listener through behaviors such as swearing. These approaches do not necessitate an exploration of the vicissitudes of swearing.

## For example 3:

- *How likely would it be to hear a dean say “idiot” in a dorm room?*
- *“Come back,” Maxim said sharply; “we don’t want to go that way. This foolish dog must look after himself. ( Du Marier D. “Rebecca”)*

The word “idiot” and “foolish dog” are low taboos and used behavioral cursing of somebody for rudeness in English speaking cultures, but what about Uzbek culture. In Uzbek culture evaluating or cursing is often very detailed with colorful expressions, all the relatives, their children and grandchildren. The following dialogues can be vivid illustrations:

## Uzbek version (example 4):

- *Qayoqlarda yurgan eding, bolam? Ko’zim ochiq paytlarda qayoqlarda eding, tentagim? (Said Ahmad “Jimjitlik”(Silence))*

## Translation

- *Where have you been boy? Where were you when my eyes were open, idiot. (Said Ahmad “Jimjitlik”(Silence))*

In this expression we can see the word “*tentagim*” is used for pampering of grandmother instead of cursing or other rude feelings, expressions such as idiot.

#### Uzbek version (example 5):

- *Ho, daydi! — dedi unga yaqinlashib qolgan Mirvali. (Said Ahmad “Jimjitlik”(Silence))*

#### Translation

- *Hey, hobo! – said Mirvali coming closer to him. (Said Ahmad “Jimjitlik”(Silence))*

“*daydi*” is used for the person who has not any job or permanent residence for living, in this example 2 the word utilized as *walking alone aimless* in Uzbek language.

Comparison *hobo* with *devil*:

#### Example 6:

- *“Only Ben,” said Maxim; “he is quite harmless, poor devil. His father used to be one of the keepers. Where did you get that piece of rope”. (Du Marier D. “Rebecca”)*

A “*devil*” is the [personification](#) of [evil](#) as it is conceived in many and various cultures and religious traditions. It is seen as the objectification of a hostile and destructive force. But in some cases the word uses for describing characteristics of person behavior.

Interpersonal swearing is a complex communicative act that is influenced by contextual variables such as speaker-listener relationship, social and physical setting, and the topic of discussion. As an analysis of the speech situations that give rise to swearing, much of what we have addressed in this paper contributes to our understanding of politeness behaviors regarding swearing in public. Generally speaking, swearing is appropriate and not impolite amongst peers in casual settings. In formal contexts and with participants of unequal status, swearing is not expected.

The politeness principle of communication can be actualized either as absolute politeness or as relative politeness. Absolute politeness in terms of Geoffrey Leech can be associated with a scale, or a set of scales, having a negative and a positive pole. Negative politeness consists in minimizing the impoliteness of impolite illocutions (e.g. orders), and positive politeness consists in maximizing the politeness of polite illocutions.

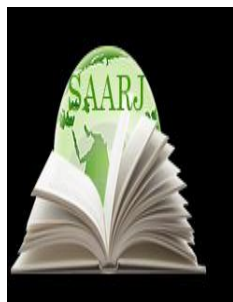
As for relative politeness, it can be stated that people can be polite relative to some norms of behavior, which for a particular culture they regard as typical. For example, it is commonly said that Japanese and Chinese are very polite in comparison with Europeans. So the norm of politeness for a particular culture, and particular illocution type is different, i.e. relevant. Thus, it is known that the British are excessively polite (and perhaps insincere), when asking favors of others. A further norm is one for a particular category of person, according to sex, age-group, social status or class. Relative politeness is variable on many dimensions, according to the standard or set of standards (Leech, 1996, p. 84).

**CONCLUSION**

It is essential to note that speech etiquette and interpersonal communication of different nations depends on their cultural background, life style and world perception. Etiquette norms in speech behavior of the English and Uzbek culture determines the choice of their communicative culture and operating within politeness strategy of socio-pragmatic conditions vna Shish ova.

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## ANCIENT MUSICAL CULTURE OF CENTRAL ASIA

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### ABSTRACT

*This article describes the ancient musical culture of Central Asia. Recent discoveries by archaeologists and other historical sources show that the land of Central Asia and Uzbekistan in its center had a very rich and colorful musical art before and several centuries BC. The ancients first invented outdoor instruments that sounded louder than the human voice as a result of their protection and domestic needs, and they were used in hunting, in informing other tribes, in military campaigns, weddings, festivals, celebrations, and so on used in various other gatherings.*

**KEYWORDS:** Ancient people, human voice, ancient stone age, trumpet, dutar, tanbur, oud, musical names, Ayritom, Qoshbulamon.

### INTRODUCTION

Recent discoveries by archaeologists and other historical sources show that the land of Central Asia and Uzbekistan in its center had a very rich and colorful musical art before and several centuries BC. The monuments of fine arts found in such ancient cities as Tuprakkala, Afrosiab, Ayritom testify to the fact that music was widely introduced into various aspects of social life and gained important artistic and moral significance. Dust (harp), oud, and flute in the hands of skilled performers specializing in their field are the perfect words that have come a long way. The theoretical foundations of music, as well as the symbols associated with the unique philosophical and artistic aesthetic views of each period, are carefully worked out.



## METHODS

The ancients first invented outdoor instruments that sounded louder than the human voice as a result of their protection and domestic needs, and they were used in hunting, in informing other tribes, in military campaigns, weddings, festivals, celebrations, and so on. used in various other gatherings.

Samples of instruments found in ancient Stone Age (Paleolithic) excavations (12-15 thousand years BC) have survived to our time. Most of them were percussion instruments.

The first specialized instruments in the III-I centuries BC were described as two-stringed and multi-stringed harp-like instruments such as flute, tongue and trumpet, dutar and tanbur, barbad and ud.



Avlos chalayotgan ayol rasmi

The fact is that the musical instruments depicted in ancient monuments are not abstract (imaginary) instruments, but most of them are ancient instruments rooted in the earth. Take, for example, a musical tablet depicted on the roof of the Ayritom fortress near Termez, which dates back to the 1st century. It depicts five female musicians playing musical instruments.

The original names of this instrument have not reached us. For this reason, we have to think in terms of the names of the instruments that are common in later times. These instruments are the harp-shaped and oud-like instruments made of two-faced drum reeds (also called dripping organs) in the form of an hourglass, and the tambourine, called "avlos" in ancient Greek. An instrument similar to the Avlos was called a koshbulamon in Khorezm.

An example of an avlos-like instrument in the image of Ayritom was kept in the hands of Khorezmian teachers and was called koshbulomon. Koshbulamon was in the hands of MatyokubOllayorov, an old teacher (trumpet player) from Khorezm, who gave a part to his student MatrasulMatyokubov. The masterpiece was restored by musicologists Rustam Boltaev and Matrasul Matyokubov. Ravshan Negmatov, an associate professor at the conservatory, is currently working with his students to return the instrument to practice.



Qo'shbulamon

We still have the "neighbor" device, which belongs to the category of neighbors. But there is a big difference between a neighbor and a double room.

It is known that it is a paired form of a string that cuts the tongue from the neighboring tubes and emits sound. Koshbulamon is a classic mulberry instrument. Its solitary appearance is called bulamon in Azerbaijan. However, we do not know whether the twin forms of bulamon are known in other nations.

Many musical instruments of ancient Central Asian culture (nay, ud, doira) have purely local features. The fact that local traditions are connected with Greek, Indian and other folk traditions is also reflected in the words, which means that the culture of that time was unique. Although the influence of Greece on Central Asian music culture can be found in the musical pamphlets of medieval Central Asian scholars, this influence has faded over time. As a result of the unification and growth of tribes and peoples, the emergence of the first states in Bactria, Sogdiana and Khorezm, the military-administrative unification of the Achaemenids, the emergence of Greco-Bactrian rule under Alexander the Great. This period covers a very large historical period from the 7th century BC to the 4th century AD. Ancient cultural monuments prove that in the territory of today's Uzbekistan there was a high civilization created by the ancestors of the peoples of Central Asia. Archaeological data, works of fine art, oriental classical literature and folklore are reflected in the epics. New research by orientalists and, finally, consistent information in the musical treatises of medieval Central Asian scholars help us to understand in detail and completely the historical process of development of Uzbek musical culture. The musical sources inherited from our ancestors are inextricably linked with the work of fraternal peoples (Turkmen, Tajik, Kazakh, Karakalpak and Kyrgyz) living in Central Asia. These periods lasted until the tenth and eleventh centuries, when the territories of ethnic peoples were delimited, and they expressed their unity, and later served as a common basis for the formation of national musical cultures of these peoples.

The period of historical delimitation in the life of the peoples of Central Asia begins around the first millennium BC. These were settled peasants (Sogdians, Bactrians, Khorezmians) and nomadic (Saks, Massagets, etc.) tribes. Information about them can be found in the Avesto. The beginnings of the common art of poetry and music date back to those times. The poetic and musical art of these peoples and nations was originally syncretic. written monuments, testify. According to some scholars, Khorezm is the homeland of the Avesto, the sacred book of the ancient Zoroastrian religion.



The Avesto itself is, in fact, a collection of archons that were spread orally through performance and only later converted into book form. His verses, and especially the hymns, are letters (the letter "t" at the end of the word is pronounced very softly, and in recent times it has become a form "goh": - yakgoh, dugoh, segoh, etc.) is found to be sung with a pleasant sound in the tones that make up the melody

system.

The Avesto had the concept of "mysterious hearing" called "sruna". Listening and receiving nourishment through the ears was considered a sacred feeling by Zoroastrians. In Islam, the same feeling is one of the attributes of Allah. Interestingly, Zoroastrians were accustomed to enjoy not only the beauty of the sounds, but also the sound of fire, and even silence. Music, as an art, begins with literally performing and listening to it. If the musician is the creator of the melody, the listener is the receiver. There is a saying among our people: "A true evaluator of the composer, his teacher and listener". This includes the listener, of course.

The origins of music preserved under the name of Khorezmdutarmaqoms go back to ancient times. The Orazibom and Gusfand series, which have been traditionally performed in the past, have been performed to the accompaniment of dancing and singing (around the sacred fire in rituals associated with the worship of the gods). There are many such examples in today's life. All of this serves as additional evidence to support our view.

The boom in the Orazi boom can be compared to the ancient word bama. It is used in the Avesto in the form of vama (bama), meaning "bright", "jilvagar", and in Sanskrit (ancient Indian) as vhama. The word is also included in the name of the goddess Bomyak, who is thought to be the leader of the Sun (Mehr) in the Avesto. Based on its present form, the fasting part can be interpreted as "face" in Arabic.

The etymology of the name "Gusfand" is the antiquity of the melody, its original form means "gohispan", meaning "good place", "good place". The word Goh in the dictionary means the throne of kings, time and time, dawn, place, place. This shows that the origin of the melody is connected with the ancient traditions of Khorezm. It is no coincidence that the songs sung by Zoroaster are also called goh // got-lar. The transition of "sometimes spand" to "sheep" is based on phonetic laws, which is not in vain. This is because the word spand, which means "sheep", also means noble and sacred.

The roots of such expressions in our classical music as "Zamzama", "Taronia" (old form "Taronik" - "Taronacha", "Bukhara", "Fergana"), "Suvora" ("Asp ros") It is also possible to admit that it is connected with the traditions of the Avesto period.

### Sadri Gusvand



The old musical terms mentioned, of course, have been given new meanings and meanings in accordance with the ideology of later times. In any case, these terms are related to the sounds that have come down to us from time immemorial. This is confirmed by archeology, ethnography and other sciences.

The period from ancient times to the IV century AD is characterized by the emergence of musical poetic creativity, which is dominated by epic mythological heroism. Heroic legends and epic songs are full of vivid depictions of the heroic struggles of the peoples of Central Asia for their independence. Excerpts from the legends of Sak, who tells the story of the unparalleled courage and love of the shepherd Shirak, who sacrificed his life for the liberation of his people, have survived to our days.

For example, songs about Rustam and his battles, his love for Princess Takhmina, and the death of his son Sukhrob, who was executed at the hands of an unknown father, have become the social spectacle of separate community ceremonies. These songs were later featured in the Shahnameh. A series of legends about Rustam, Siyavush and other heroes was created.

Folk ceremonies, such as the equinox in the spring, the Navruz holiday, were common. Medieval writers also pointed out the role of music in labor ceremonies and their attempt to connect the structure of the human spiritual world with the myths of extinction and return in nature.

Many of the statues found in Afrosiyab (the site of the ancient city of Samarkand) depict musicians playing flutes, oud, and doira. Numerous statuettes testify to the importance of music in the life of the Sughds and their capital, Samarkand.

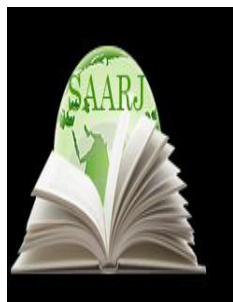
## CONCLUSION

So, the roots of our musical heritage are hidden in the depths of ancient history. Summarizing their starting points, however, is always represented by conditional dates. As an example, let's take the issue of marking the first period of reality, which we recognize today as "Uzbek classical music". According to the latest observations of musicologists, its summary can be seen as a phenomenon that developed conditionally in the late seventh century, ie after the emergence of Islam<sup>5</sup>, and in the first stage of this musical system was conditionally called "Borbad melodies" ("Lahni Borbad"). "Seven curtains" are given common names. However, we do not have written evidence of the system's real name.

At the same time, the latest discoveries of archaeologists show that the "Borbad tunes" were dominated by a great civilization that is contemporary, and even earlier. Scholars have dubbed it the "Great Indian Way" as an alternative to the Great Silk Road. It is acknowledged that the beginning of this path of economic and cultural ties between ancient Indian civilization and the Western world was through the upper reaches of the Amu Darya, Bactria, and the lower reaches through Khorezm.

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## THE VALUE AND ROLE OF INTERACTIVE METHODS IN THE DEVELOPMENT OF INFORMATION TECHNOLOGY IN PRIMARY SCHOOL PUPIL

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### ABSTRACT

*This article examines the study of computer science using interactive methods in elementary school. Everyone knows that in the process of studying computer science and information technology in a primary school, a whole series of universal educational actions is effectively developing, especially regulatory and cognitive. We will try to reveal the features of teaching computer science in a primary school.*

**KEYWORDS:** *Computer science, interactive methods, “Informatics and ICT”, information and communication technologies, primary school, accompaniment of the lesson, educational material.*

### INTRODUCTION

The study of computer science using interactive methods allows you to activate students' cognitive activity, develop self-learning abilities, develop teamwork skills, develop and form communication skills, and most importantly increase educational motivation. The essence of interactive learning is that the educational process is organized in such a way that almost all students are involved in the learning process, they have the ability to understand and reflect on what they know and think. The joint activity of students in the process of cognition, development of educational material means that everyone makes their own individual contribution; there is an exchange of knowledge, ideas, ways of activity. Moreover, this happens in an atmosphere of goodwill and mutual support, which allows not only to obtain

new knowledge, but also to develop the cognitive activity itself, translates it into higher forms of cooperation and cooperation.

## METHODS

The subject “Informatics and ICT” occupies an important place both in the educational system and in the development of modern society as a whole. This subject was recently introduced to schools, and also has some differences from other school disciplines, so there are many opportunities for teachers. These features allow you to conduct lessons in a new way, use a variety of methods, tools, teaching technologies, which in particular contribute to the formation of cognitive interest of students and, therefore, bring the quality of education to a new level. The subject “informatics” itself is quite universal. Believe that it is in the study of this subject that interactive methods should be used, because computer science is being improved every day and developed in step with scientific and technological progress and it is not advisable to stop and use traditional methods here. In conducting computer science lessons, taking into account the choice of method depending on the didactic task. Setting myself the task of summarizing the previously studied material, using the method of “Brainstorming”, “Group discussion”, “Business game”, “Analysis of the situation”, “Work in small groups”, “Work in pairs”, “Microphone”. Information technology requires more skills and knowledge than knowledge. Therefore, in the lessons of computer science should be given priority to the practical activities of students. It can be activated using the design method of training. The most important point here is the result of the actions performed. Therefore, the result of any practical work must necessarily have personal significance. This method may turn out to be the ideal tool for solving this problem. Having mastered the technologies of communication in networks at computer science lessons, a student can be included in such an educational process at a school in which subject teachers use new pedagogical approaches (training in collaboration, group work, project activities, multilevel and module training, etc.) In addition, the student can use information resources from the internal school information space (Internet) and from the Internet to solve specific learning problems. In this educational process, the student ceases to be only the object of teacher influence - he becomes the subject of interactive, communicative interaction with the teacher and fellow practitioners. Due to the active use in the educational process of interactive and design teaching methods and information and communication technologies, it is possible to achieve the educational results necessary for life in the information society. The most important condition for the implementation of interactive learning in practice is the personal participation of the teacher, its direct inclusion in various forms of interactive learning. The introduction of information and communication technologies into the practice of the educational institution opens up great opportunities for improving educational methods, for the exchange of experience and a creative approach to teaching.

In the process of studying the course “Informatics and ICT”, the student gets the opportunity to form.

1. The ability to find the answer to the question “what is the use of modern information technologies in the process of learning at school and self-education”.
2. The internal position of the student at the level of a positive attitude towards school, understanding the need for learning.
3. A broad motivational basis for educational activities, including social, educational, cognitive and external motives.
4. Educational and cognitive interest in new educational material and methods for solving a new particular problem.

At the same time, the project method on the subject of computer science is a method of organizing group training.

In the process of students’ creative project activities, group interaction, provided during the course of the project, allows to educate and develop important social qualities of a person. This is the ability to work in a team, interact, help each other, work on one goal.

From the above, it can be said that, the value of the project method implemented in the lesson of computer science and ICT will affect:

- the development of cognitive universal educational actions of younger students;
- increasing cognitive interest in the study of the subject;
- improving the quality of learning and performance;
- application of the gained experience in multidisciplinary areas.

Features of computer science education in elementary school.

Many changes taking place today in Russian society have led to a review not only of the forms, but also of the content of modern school education. These changes are due to an increase in the flow of information, which is associated with the activity of any person.

The child’s psychological readiness for life in the information society should be formed from the first years of schooling, which involves mastering computer literacy. It is equally important to form the student’s skills in algorithmic thinking and the ability to think logically.

Therefore, there was a need to transfer the study of propaedeutic computer science from the middle school to the elementary, since the most intensive development of intelligence occurs at primary school age, while attention becomes arbitrary, there is a transition from visual-figurative to verbal-logical thinking, the perception is analyzed and differentiating character, improving memory.

The number of schoolchildren with their own personal computers is growing every year, and the prevalence of computers in the world is so great that the ability to use them in everyday activities forms a new lifestyle and becomes an element of the general human culture.

Primary school students have a great interest in computer games, and therefore a motivation for studying computer science.

Experimental studies related to the development of the content and methods of studying the course of computer science in elementary school have been conducted for more than ten years, and since the academic year 2002-2003 this course has been included in school education as an independent subject. Various approaches to its study in elementary grades are developed. They were embodied in various educational and methodological kits.

The introduction of information technologies in the educational process and combining them with traditional teaching methods puts students in need to be prepared for changing forms of learning, to perceive the improved content of subjects, and to independently search for interdisciplinary connections.

Training in the logical foundations of computer science is carried out in several areas, each of which has a training quarter. Thus, the study of the material occurs in a spiral - students every quarter continue to study the topic of the same quarter of last year. Classes are held once a week. Each academic quarter ends with a test: I quarter - algorithms, II - objects, III - logical reasoning, IV - models in computer science. In the lessons, children learn to describe, compose and analyze algorithms, establish relationships between sets of objects and graphically depict them; Combine and classify items describe simple graphs; build and find paths in graphs; solve logical problems and problems in the search for patterns; find a solution by analogy; build a chain of logical conclusions.

The attention of methodologists and teachers is often eluded by such an important point as the development of fine motor skills in the hands of elementary schoolchildren. This aspect is usually paid attention to by the teacher of labor, where this is one of the tasks of training. In computer science lessons, when working on a computer, students had to learn keyboard work and mouse tricks at first. This is a rather complicated process in conditions when the student has to follow the result of subtle movements of the hand and fingers not directly, but on the computer screen. A complicating fact is that in domestic schools in the classrooms are computers made for adult users. Their keyboard and mouse are designed for the hands of an adult and are not at all suitable for a child. All this delays the process of mastering the methods of working with the keyboard and mouse by children, affects the development of fine motor skills of fingers and hands, and through their subtle movements the development of the brain of the child is stimulated. In this regard, it is of interest to use laptops for training, in which the keyboard is significantly smaller and more convenient for children's hands. They take up little desk space and can be used in ordinary classrooms. It is worth noting that

the cost of ordinary laptops is now comparable to the cost of desktop personal computers. Recently, the industry began to produce computer mice with variable sizes, which can be adjusted to the user's hand, which seems convenient for schoolchildren of different ages to use in the computer science room.

According to the new basic curriculum of the school and the educational standard in computer science, the subject "Informatics and ICT" is introduced in grades 3-4 as a training module for the subject "Technology". But due to the school and regional components, computer science can be studied from grade 1.

### **USING MULTIMEDIA TOOLS IN COMPUTER SCIENCE LESSONS**

The development of new information technologies and their introduction in Russia left a certain imprint on the development of the personality of a modern child. A powerful stream of new information, advertising, the use of computer technology in television, the distribution of game consoles, electronic toys and computers have a great impact on the upbringing of the child and his perception of the world. The nature of his favorite practical activity — the games — is changing significantly, and his favorite characters and hobbies are changing.

Not all schools today still have equipped technological classes, outdated curricula and teaching methods lead to a significant decrease in the motivation for teaching students, forcing thoughtful educators to look for more modern teaching methods and methods. One of the visual aids with unique capabilities and widespread and tested in schools is a computer.

The computer naturally fits into the life of the school and is another effective technical tool with which you can significantly diversify the learning process. Each lesson causes an emotional upsurge in children, even lagging students willingly work with a computer, and the unsuccessful course of the game due to knowledge gaps encourages some of them to seek help from a teacher or to seek knowledge in the game on their own. On the other hand, this teaching method is also very attractive for teachers: it helps them to better assess the child's abilities and knowledge, understand him, encourages them to look for new, non-traditional forms and methods of teaching. This is a large area for the manifestation of creative abilities for many: teachers, methodologists, psychologists, everyone who wants and knows how to work, can understand today's children, their needs and interests, who love them and give themselves to them.

Computer and communication technologies are quite obvious manifestations of the information revolution. Therefore, the keen interest shown by teachers in computer literacy in finding ways to adapt the school to the modern world becomes clear. An increasing number of parents, teachers and students are convinced that as a result of the knowledge about computers and the acquired skills of working on them, children will be better prepared for life and material well-being in a changing world.

Among the visual teaching methods, the “video method” is increasingly being singled out. With the intensive development of video equipment, it stands out from the demonstration method into an independent one. It is based on screen sources of information (movie cameras, televisions, computers, scanners, etc.). The use of video materials helps in a very short time in a concentrated form to present a large amount of information professionally prepared for perception, helps to look into the essence of phenomena and processes inaccessible to the human eye. The video method can be used at all stages of training as a multifunctional method, which provides easier and more durable assimilation of knowledge, significantly affects the formation of the worldview, stimulates the development of abstract logical thinking, and reduces training time.

Recently, fabulously rich video encyclopedias and various educational video materials have been created especially for children, the use of which in moderate doses and under experienced guidance can significantly improve the quality of the educational process.

If an elementary school teacher has access to educational media systems, then with the help of a video method he will solve didactic and educational problems. The method is useful for:

- presentation of new knowledge, in particular, very slow processes that cannot be observed directly;
- explanations in the dynamics of the principles of action of complex mechanisms and machines;
- learning algorithms for performing various types of activities;
- resentation of video documents to strengthen the link between learning and life;
- organization of test tests;
- performing training exercises;
- computerized accounting of the performance of each student in the class, the implementation of a differentiated approach to the organization of training;
- rationalizing the educational process, exceeding its productivity, the optimal amount of transfer and assimilation of information by improving the quality of pedagogical management.

The effectiveness of this method does not depend much on the personal skill of the teacher, but is directly related to the quality of video manuals and technical means used.

Today, primary school teachers have at their disposal over 400 filmstrips, slightly less series of transparencies, about 100 educational films and film clips in all academic subjects, a series of recordings for reading lessons, for music lessons, for physical education lessons, a series of banners for nature studies and mathematics for graph projectors .

In preparation for the lesson using the instructional movie, the teacher must look through it and get acquainted with the installation sheet, which allows you to think about the purpose and place of this learning tool in the lesson, questions and assignments for the film to students. Before any viewing, it is necessary for students to formulate the goals of the demonstration, to give questions, tasks, which makes the perception of the film focused. Their number in primary school should be small so that students can keep them in mind.

The development of presentations for the lesson helps to implement such tasks of the learning process:

1. change of forms of training and activities within the framework of one lesson;
2. accompaniment of the lesson with illustrative material;
3. the organization of interactive forms of control of knowledge, skills.

Teaching the subject of informatics and ICT involves the use of various information and technical training tools in the lessons. The use of an interactive whiteboard in classroom activities in computer science is very effective in studying such educational modules as: “computer device”, “familiarity with the interface of work programs”, “logical foundations of building a computer”, “encoding information in a computer”, “information and communication technologies and networks”.

The interactive whiteboard combines projection technologies with a touch device, so this whiteboard does not just display what is happening on the computer, but allows you to control the presentation process (two-way movement), make corrections and adjustments, make notes and comments with light, save lesson materials for later use and editing. By connecting an interactive whiteboard to the school network server computer, you can organize work at an informatics lesson using the capabilities of the local network. For example, students perform electronic tests on computers, the results are displayed on an interactive whiteboard, and with the help of tactile control, the teacher can mark the correct and incorrect answers, and students have the opportunity to correct them immediately.

At computer science lessons in primary classes, such programs are used as: WordPad, Paint, Microsoft Word, Microsoft PowerPoint, notepad, calculator, etc. Working with Microsoft Word and WordPad word processors includes creating forms of various business documents, gaining skills in computer typesetting and layout. The development of presentations at PowerPoint, usually representing a slide show on a topic, combines the knowledge and skills gained, including developing diagrams and organizational diagrams, processing and using information, inserting images, and applying animation. Work in the Paint program develops students' cognitive interest, creative activity, computer skills. Particularly popular among students is usually working on the Internet. The development of the skills of searching for information on the Internet, both for practical and educational and general cultural purposes, as well as the ability to work with e-mail are one of the main for a modern person.

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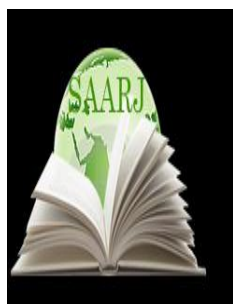
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## CONCLUSION

Thus, the requirement of providing visibility in the case of using electronic educational material can and should be implemented at a fundamentally new, higher level. In the future, when virtual reality systems that provide an impact on vision, hearing, touch and even sense of smell will become more widespread, it will apparently be more advisable to speak not only about visualization, but also about the multisensory nature of learning, that is, the more sensory organs involved in the process perception of information, the more successful the process of cognition. Using interactive equipment and new training systems allows us to introduce a fundamentally new format for the training session. Computer support, especially for computer science lessons in elementary school, allows bringing the modern lesson to a whole new level, raising the status of the teacher, using various types of activities in the lesson, and more effectively organizing control and accounting of student knowledge.

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## LINGUISTIC AND PRAGMATIC FEATURES OF SPEECH ACTS IN THE STUDY OF FOREIGN LANGUAGES: A CRITICAL THEORY OF UNDERSTANDING THE WORLD

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### ABSTRACT

*This article will examine the theoretical features of speech acts against the background of criticism of structural linguistics. This analysis will provide an opportunity to find gaps in the Uzbek academic discourse regarding pragmatics. This article is specifically aimed at filling this scientific gap in terms of the study of pragmatics in the framework of speech acts. We will try to reveal the essence of the theoretical features of speech acts in the framework of structural linguistics.*

**KEYWORDS:** *Speech acts, John Austin theory, pragmatists, structural linguistics, pragmatic competence, language functionality.*

### INTRODUCTION

This article will examine the theoretical features of speech acts against the background of criticism of structural linguistics. And also, he will study the history of the theory of speech acts and the principles that laid the foundation for the emergence of this theory. We will analyze pragmatic competence and its parameters (meters), which will be further used in the analysis of authentic materials of speech acts “expression of failures”. We will make a critical analysis of the academic work on pragmatics that were written in post-Soviet Uzbekistan. This research work will provide an opportunity to find gaps in the Uzbek academic discourse regarding pragmatics. The scientific article is specifically aimed at filling this scientific gap in terms of the study of pragmatics in the framework of speech acts.

## METHODS

The theory of speech acts is one of the directions of pragmatics. Since pragmatist studies the process of the formation of meaning from the point of view of its functional component (meaning-in-use), the theory of speech acts focuses its attention on this language functionality. In other words, pragmatics studies how the intention of the addressee, expressed through language, is appropriately interpreted by the addressee. From this point of view, the theory of speech acts considers speech as an action / intention. That is, people, when communicating, not only passively describe this or that reality, but they perform a certain action. This judgment was first proposed by the British linguistic philosopher John Austin (John Autin, 1962) in the 1960s, and it was further developed by the American linguistic philosopher John Stearle (John Searle, 1969).

Austin, criticizing the academic judgment of neo-positivists and empiricists who dominated Europe in the 1950s regarding the need for empirical verification (in terms of “true” / “false”) of all judgments, said that dualism “true” / “false” cannot be applied to propositions. With this statement, Austin introduced the term “performative” into academic discourse, dividing judgments into performative and ascertaining ones.

While the meaning of judgments depends on the “true” / “false” dualism (for example, there is a glass on the table), performativities - for example, you are fired - cannot be evaluated from the point of view of the aforementioned dualism. The meaning of this you are fired depends on the social context, including the addressee, i.e. who speaks when said, i.e. under what social conditions, etc. By saying that you are fired, the addressee performs a certain social action in the sense that he or she changes social reality, i.e. the dismissed becomes unemployed after his / her utterance. A similar statement - you are fired - contrasts with the proposal on the table is a glass / there is a glass on the table, since the latter describes an objective reality, while performatives perform a certain action, the meaning of which depends on intersubjectivity.

In order for performances to matter, i.e. they could perform a certain action, changing one social reality to another, they should speak out in accordance with certain social rules. These rules are called “felicity conditions”. These are the rules that ensure the success of performances. “Felicity conditions” of the performative you are fired / you are fired - these are rules such as the addressee who is legally entitled to dismiss someone (for example, the director), the addressee who has violated certain labor laws that entitle the director fire an employee.

So performativities are those statements by which the addressee commits a certain social act. These performatives, therefore, do not just describe reality, but change it, transforming the social situation. Such performances are not analyzed from the point of view of “true” \ “false”, but - “successfully” \ “unsuccessfully” committed act.

If Austin showed that all statements are divided into constative and performative, then Searl further discusses performative from the point of view of illocutionary and perlocutionary acts.

Locative act - the act of saying something; illocutionary act - the commission of an action through the utterance of something or the interpretation of a locative act from the point of view of the intent of the addressee; perlocutionary act - the reaction of the addressee, which naturally arises as a result of the proposal made by the addressee. A locative act is any statement that meets the requirements of grammar, lexicology and phonetics in a particular language. The locative act is studied in traditional linguistics within the framework of the theory of objectivism and the correspondent theory of truth. Unlike the locative act, the illocutionary act not only conveys information and passively describes the world, but also activates certain social conventions and norms under which the interlocutors will bear certain moral obligations (Austin: 1962: 94-95, 98-99, 101-102 , 105). For example, if a locative act ("Do not do this!") Informs about the addressee's intention, then the illocutionary act ("I protest against you doing this") activates a certain social generally accepted structure, namely: our society is not supposed to do this ; I, as a representative of this society, forbid doing this; he who does not follow this principle becomes a stranger in society. The belief in refusing to do this ("He convinced me not to do this") is a perlocutionary act. A perlocutionary act is the reaction of the addressee to the addressee's statement. In general, among the three groups of speech acts, Austin focuses on illocutionary acts, which mean the commission of a social action through utterance.

Thus, constatives are sentences whose meanings are characterized by a description of the facts in reality. Therefore, constatives can be analyzed from the point of view of the "right" / "wrong" dichotomy, since they show a combination of a word with a referent, i.e. observable facts. For example, the sentence "I see a tree" may have an estimated structure "correctly" if it is said in the field of view of the addressee, i.e. the one who saw the tree said this sentence. In this situation, this proposal is correct, since it can be proved that the tree really exists and the addressee, having said this, can confirm the fact of correctness (H.P. Grice "Meaning").

Illocutionary acts, on the other hand, are a reality that combines language and culture, social norms, and likelihood. These acts are not constitutes and they cannot be evaluated in terms of the "right" / "wrong" dichotomy. The correctness or relevance of illocutionary acts depends on non-linguistic structures, including cultural norms, social and historical contexts, psychological aspects (faith, sincerity, etc.) (HP Grice, "Meaning," *Philosophical Review*, 66 (3), July, 1957): 377-388. For example, expressing a refusal "I do not intend to do this," the addressee must take into account circumstances such as the status of the addressee, the reason why this refusal was said, the status of the addressee, which can be refused in this way. As the above shows, this failure cannot be assessed in terms of "right" / "wrong". Existing social circumstances only make such a refusal "successful", i.e. expressed (relevant) refusal by the addressee is understood and accepted by the addressee (Searle, *Speech Acts*). In this situation, this communicative act is successful, having achieved its goal (successfully accomplished communicative goal).

Based on the foregoing, it can be argued that illocutionary acts (speech acts) should be analyzed in the context of a specific speech situation. This speech situation, as we said above, is not

determined by linguistic rules, nor by the coincidence between a word and real facts (structural linguistics). This speech situation is characterized by social circumstances in which a particular speech was made. In such circumstances, it is analyzed not only the addressee (for example, how much he or she made (a) speech is grammatically correct), but also the addressee who, depending on social circumstances (i.e. the speech situation) accepts (or does not) accept that refusal, expressed to him / her. This shows that illocutionary acts determine the relationship between the addressee and the addressee, as well as with the social situation in which one or another rejection was expressed.

Since illocutionary acts establish a relationship between people and the social speech situation, such a relationship is supported by certain social rules and norms, traditions, collective actions formed during a certain historical period. Therefore, when people, communicating, express illocutionary acts, they not only passively describe the facts, but commit a certain social act (Austin, *How to do things with words*, 1962), i.e. within the framework of the accepted rules and norms (the expressed refusal in this situation is considered relevant, for example). The stated illocutionary act forces the addressee, having accepted the refusal, to change the course of events and forces him / her to make attempts that correspond to the accepted refusal.

Thus, a person, having expressed a specific speech act, commits the act itself, which is understandable and appropriate for the addressee and addressee due to the fact that this act was committed in accordance with social norms and shared practices (social norms / conventions and shared practices). In general, these norms and / or collectively shared practices can be defined as unwritten rules (tacit rules) shared in a given society. Therefore, these rules give (intersubjective) meaning to one or another action carried out between the addressee and the addressee. Therefore, these rules are called constitutive rules (John Rawls, "Two Concepts of Rules" in *Readings in the Theory of Action*, ed. By NS Care and C. Landesman. Bloomington and London: Indiana University Press, 1968, pp. 306-340). Without constitutive rules, speech acts would have no meaning and proper effect. For example, the speech act "I (the director) will not allow you (the employee) to do this" is supported by the rules (shared practice) that the director speaks in circumstance X, which, in turn, is undone by the employee (i.e., he or she knows that the director has the right to refuse in this situation and this situation is perceived by the employee adequately).

Searle refers to these constitutive rules to explain the fundamental structure of speech acts. The scientist notes that there are two types of such rules: -regulatory rules, and -constitutional / constitutive rules. While regulatory rules are not mandatory in terms of their implementation, therefore, they exist independently of speech acts (actions), constitutive rules are dependent on such actions / acts. "Do not do this" may be mandatory, i.e. the addressee can execute or not. On the other hand, when playing chess, the player says "check", moving the piece on the board. In response to this, the other player understands and acts accordingly, i.e. or accepts defeat, or finds another move that saves him from defeat. So, playing chess is impossible without those

(constitutive) rules (shared between players) that make the game itself significant for both (Searle, Speech Acts).

Austin notes (How to do things with words, 1962) that these regulatory and constitutive rules were formed in a particular society during a certain historical period, i.e. society is one that consists of speech acts formed historically (a speech act community). Searle emphasizes that constitutive rules arise from regulatory rules. That is, prohibiting rules are gradually becoming the norm in the behavior of a society. Therefore, regarding speech acts, we do not have two different rules (regulatory and constitutive), in the rules that complement each other in the construction of a speech act.

If we approach speech acts from the point of view of the rules that we discussed above, it can be argued that language is that type of human behavior that is consistent and coordinated by rules (a rule-governed behavior). Therefore, this type of human communication, including the “expression of refusals”, can only be analyzed in the framework of non-linguistic structures (time, place, addressee status, social distance, depth of the question raised, other social circumstances that make the addressee’s refusal relevant to the addressee) of generating the value . Therefore, speech acts not only convey the meanings recorded in the dictionary, but construct a particular social situation within which human behavior is coordinated from the point of view of shared social norms and rules.

Austin (1962) argues that while illocutionary acts are a process of speaking (generating constitutional rules) and through this process of implementing a particular social act, perlocutionary acts are a “effect” that is generated as a result of a perfect illocutionary act on the part of the addressee. The illocutionary act does not have such an “effect”, since it expresses the intention of the addressee to which the answer (ie effect) of the addressee is expressed. The “effect” of the addressee plays a huge role in ensuring the success of a perfect speech act (that is, it shows how much a particular constitutive melted works effectively). If the perfect illocutionary act on the part of the addressee does not cause any effect (i.e., response) of the addressee, then such a speech act can be considered unsuccessful (failed to accomplish its communicative goal). For example, the illocutionary (speech) act (expression of refusal) of the addressee “I will not sign your letter” may be successful or not. If the addressee answers “well” to this statement of the addressee (since this statement takes into account factors such as social circumstances), then this act is successful. If in response to this speech act, the addressee will not say anything, i.e. the absence of an “effect” (ignored by silence), the statement of the addressee will lose its communicative sense, because it will not be clear whether the addressee accepted the rejection of the addressee or not (that is, constitutive rules do not work successfully). The success of a speech act depends on the social circumstances in which the illocutionary act was expressed, as well as on the “effect” (perlocutionary act) of the addressee on this statement. In other words, the intent of the addressee, expressed through the illocutionary act, must be accepted / recognized by the addressee. Therefore, understanding and recognition fall into different cognitive categories. All

that is heard and understood at the linguistic level (ie, grammatically correctly constructed sentences) does not mean recognition as an addressee if a particular speech act does not meet the social requirements of communicative interaction (Campbell, "Locutionary, Illocutionary, and Perlocutionary Acts")

Austin, in his work *A Plea for Excuses* (Austin JL (1970) *Philosophical Papers*, 2nd ed., Ed. By JO Urmson and GJ Warnock. London: Oxford University Press), notes that when we analyze what words we need when and where (in what situation) to use, we look not only at the words (what meaning they have in accordance with the dictionary), but we also look at the social reality in which we use these relevant words. This reality associated with the use of these relevant words is called linguistic phenomenology. This phenomenology shows how much the words we use relate to the social reality in which we live. This phenomenology originates from the phenomenology of existentialism (Martin Heidegger (1962) *Being and Time*. Trans by. John Macquarrie and Edward Robinson. NY: Harper and Row Publishers).

The phenomenology of existentialism criticizes the abstract nature of traditional paths - the rational animal and / or Hegel's idealism - the interpretation of human existence (existence). The term Dasein of the phenomenology of existentialism in response to these abstract questions of being offers to study this philosophical question from the point of view of man himself, i.e. Being is not outside of man (rationality, idealism), but in man himself. At the center of such a philosophy is the consciousness of man, his life experiences, experiences. Therefore, according to Dasein, not only does the world exist, but the world itself is being-in-the-world. This is the starting point for understanding the essence of being, according to the phenomenology of existentialism.

From the point of view of the phenomenology of existentialism, the existence of speech acts depends on the existence of the person himself, his life experience, the events he has experienced (i.e., the constitutive rules shared in a particular society). Therefore, the exchange of speech acts (expression of refusals) means the involvement of the addressee by the addressee in life events that have historically developed, and therefore practiced in a particular speech society, forming a social being for both. The meaning of being therefore exists between these addressee and addressee, who themselves construct this value in the process of communication and communicative interaction. The addressee who practices this or that social reality interacts with the addressee who also shares the reality practiced by the addressee (i.e., intersubjectivity). This is what characterizes what is called "to speak - this is the fulfillment of an action."

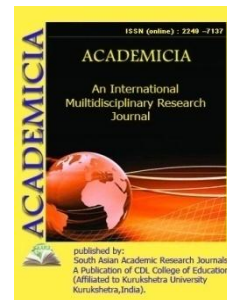
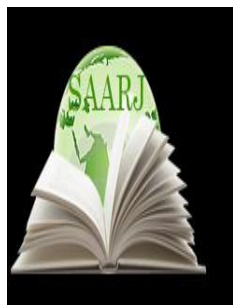
## CONCLUSION

Therefore, according to Austin (1962: 9-10), our words are our obligations to ourselves and to others. This means that a person, having committed an illocutionary act, bears moral obligations to himself and to others, first of all. Violation of moral obligations entails public censure and disrespect for someone who does not comply with social norms and rules. For example, the

addressee saying, “I promise to do this before Monday,” takes on moral obligations to fulfill his promise, otherwise he / she may lose face in front of people in a given society. The meaning of such an illocutionary act depends on non-linguistic factors, such as moral obligations, honesty and sincerity of the addressee, his / her story that he / she never broke his promise. The phenomenology of this process depends on intersubjectivity, i.e. the existence of these addressee and addressee in the process of communicative interaction.

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## DIRECTION OF HIGHER MUSIC EDUCATION - A METHOD OF WORKING ABOUT STUDIES WITH STUDENTS IN THE CLASS OF PIANO

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### ABSTRACT

*The methodological development talks about the methods of work in piano lessons in the piano class. In piano teaching practice, a special place also occupies a special work on etudes. It should be noted that the method of learning a particular study is closely related to the material itself, i.e. with the type and structure of the sketch, and also depends on the degree of mobility, age and individual characteristics of the student. Therefore, the teacher should not adhere to any universal stamps and techniques in the methodology of working on sketches.*

**KEYWORDS:** *Pianist, Preparation, Technique, Character, Teacher, Study, Exercises, Teaching Practice, Training, Reading from a Sheet.*

### INTRODUCTION

The achievement of executive mastery is primarily associated with the general musical development of the student, with the upbringing of his artistic taste, with an understanding of the contents of the works performed and the tasks of their interpretation. Performing art, however, requires systematic work on mastering the necessary technical skills, since the accuracy, speed and variety of movements that a pianist must master go beyond the limits of motor skills acquired in the course of everyday life practice. Just as a person who has not been involved in ballet art since childhood cannot perform the movements accessible to a ballet dancer, so without a special training, especially important during the years of study, a pianist cannot master the technique of playing the piano. Studying only works of art and not engaging in technical work, the student will inevitably lag behind in mastering the technical side of performance. The methodology of teaching the piano includes instructive material (studies and exercises) for students to master various types of piano texture and prepare for the performance of difficult places in various works.

Etudes, in particular, serve as preparation for mastering the texture elements characteristic of various styles of piano literature. At Czerny-Hermer sketches, a student, for example, prepares to perform the sonatas of Mozart, Clementi, Beethoven, Kramer's sketches, Klementi Czerny (Op. 279, 740, etc.), serve as preparation for a wider mastery of classical style techniques, Moszkowski's etudes and various concert etudes types are the material for mastering the virtuoso works of the romantic style.

The sketches of Russian composers used in music schools and schools - Alensky, Lyadov, Glazunov and others, which are highly artistic, instructive works, at the same time introduce the student to the stylistic features of Russian piano music. Thus, work on sketches is considered not only as a technical exercise in the narrow sense of the word (i.e., as development of finger fluency, sleight of hand movements, etc.), but also as the accumulation of executive experience, the development of certain elements of performing skills.

In piano teaching practice, a special place also occupies a special work on etudes. It should be noted that the method of learning a particular study is closely related to the material itself, i.e. with the type and structure of the sketch, and also depends on the degree of mobility, age and individual characteristics of the student. Therefore, the teacher should not adhere to any universal stamps and techniques in the methodology of working on sketches.

The first and indispensable task of the teacher is to thoroughly explain to the student when choosing the study's sketch. The teacher should tell what the main purpose of this study is, as a material for the development of a technical skill, how a study is constructed in the sense of the form and development of the material, what is the general nature of its sound image. The student must be given a clear and precise plan of work on the study, indicate how and in what sequence one or another method of learning particular difficult places, or the whole study as a whole, should be used. The degree of detail of such preliminary explanations depends on the mobility and development of the student. Naturally, with novice students, this preliminary stage of work should be given more space than with more experienced and mature students. In the first year of study, it is necessary not only to carefully explain the tasks, but also to devote time to analyzing the study in the lesson, the exercises and techniques with which the student will have to continue to study this study.

Along with this, the teacher should gradually accustom the student to more and more independent work based on the experience gained. It is very useful, for example, to set for this purpose from time to time studies, similar in type to those previously learned, indicating to the student that this study should be learned in the same way.

After a preliminary acquaintance with the sketch and determining the plan of work on it, the student must first begin to carefully study the musical text, playing the sketch at a slow pace and observing the maximum accuracy in performing musical notation.

From the very first years of training, the student should be accustomed to attentive and accurate reading of notes, the observance of the necessary fingering, the implementation of all copyright instructions. While playing a sketch slowly, the student must simultaneously think over and remember its structure, details of the text, fingering. When the sketch is well disassembled, you should begin to learn it from memory. It is extremely important to demand from the student not the mechanical, basic on motor memory, memorization of the material, but conscious analytical work.

Realizing the harmony, the structure of the texture pattern, the details of the parties and the left hand, the student will learn the text of the sketch more quickly and more firmly. It is useful to use the advice of A.B. Goldenweiser does not play a sketch or a play as a whole, but dividing it into separate episodes, to learn from small passages.

Pointing to the advisability of such work, A.B. The Goldenweiser recommends not proceeding to the next passage until you have carefully disassembled and remembered the one that is currently being unlearned. By working in this way, the student can easily remember a sketch in a few days, even without having an exceptionally good memory.

The need to develop memory in relation to sketches is especially important, since, playing for a long time on notes, the student will not be able to focus on the technical side of the performance, on the development of the necessary motor sensations. When working on individual phrases, the student must teach them not only with his hands together, but also separately with each hand.

Studying the part of each hand separately, the musical text is fixed in the memory and makes it possible to properly adjust the movement, to provide the desired character of sound. This kind of work, despite the apparent complexity of the process of learning the material, is extremely justified, contributing to greater confidence and accuracy of execution. Students who do not work on the parts of each hand separately often play sloppy, which especially affects the performance of accompaniment voices: for example, in sketches built on continuous melodic figuration on the background of chord accompaniment, chord accompaniment can be very inaccurate and uneven in sound.

## II. METHODS

The first stage of the work should lead the student to confidently perform the etude at a slow pace, and then on average, while observing the required sonority of the dynamic and other instructions of the author. Only after such careful work is it advisable to proceed with various tasks of a training nature for further technical improvement of performance. The aforesaid should be emphasized, because often the opposite can be observed in practice: the student still does not know the text well, and the teacher already requires him to play in various ways, technical options, etc.

When a student can already play the studied sketch at a slow pace for memory, teachers should be advised to pay attention to the dynamic side of performance. Often in pedagogical practice it is observed that the teacher turns to dynamic shades at the final stage of work, wanting to achieve more brightness of phrasing. Meanwhile, it is in the initial stage of learning to study an etude that it is extremely important to accustom the student to the motor sensations that are associated with the implementation of the dynamic line of the sound pattern. Otherwise, even a well-studied sketch will sound dull and monotonous. Therefore, when playing a sketch at a slow pace, the student should be required to clearly identify dynamic shades. Focusing on the dynamic side and sound quality contributes to the technical mastery of the material and its fixing in memory.

Playing at a slow pace is of great practical importance, since a common mistake is a wrong view of the meaning and tasks of slow playback. Often, teachers force students to play student etudes slowly, with a distinct sound (and sometimes with maximum force, punching out the necessary keys with each finger), without any phrasing.

This kind of "physical education" is sometimes necessary to strengthen the fingers, but for this it is better to use special exercises. When studying a sketch, it is necessary to play it, as already mentioned, precisely with those movements, with that phrasing and with those dynamic shades that will be needed for its quick performance. A study learned in this way should not be played only at a slow pace, but gradually accelerating the movement, accustom the student to performance at a moving pace. If the exercise is reduced only to slow playback, then when you try to play the sketch quickly, it turns out that the student is not prepared for this. Thus, before playing the sketch at a fast pace, the student must have a good grasp and knowledge of the musical text, to achieve a confident performance of the sketch not only at a slow, but also at an average, fairly mobile pace. Practice, however, shows that this rule is far from always respected. It is often observed that the student, not having yet learned the musical text and not having developed the necessary performance skills, tries to play the sketch as quickly as possible.

Somehow coping with the fast pace and knowing how to play the sketch from beginning to end, such students show helplessness and ignorance of the text when playing the sketch in slow motion. In this case, one more common phenomenon should be noted: the idea of a fast pace in inexperienced students is not understood in terms of the permissible limits of this pace. By a fast pace, a student often means the pace at which he cannot play the sketch smoothly and without errors, and the pace that is accessible to him is for him extremely fast, he understands how slow. Therefore, it is extremely important pedagogically to accustom the student to the correct understanding of what is slow, medium and fast pace for him and what serves as a criterion for determining the possible speed of execution. This question is important not only for the stage of learning a study, but also for its performance in the evening or exam.

Observing the failure to perform studies in exams, we often hear that the teacher explains such failures by the fact that the student (drove), i.e. from excitement began to play faster than it was in his power. Often, such cases are the result of not only excitement, but also the student's insufficiently clear understanding of the pace at which he must play. It can be concluded that the main and main thing when working on sketches (also when working on any other work) is to think over and clarify the general task, specific goals that you should strive for, and, in accordance with this, carefully study the musical text.

"G. G. Neigauz - while learning a work, I play it very slowly and accurately with respect to the musical text, imagining how it should sound in its final form and achieving accordingly a certain sonority, nuance and phrasing. With such work, the musical text gradually "comes to life", and the hands, so to speak, enter the text." The way of work, GG Neigauz points out, should be this: awareness of the structure of the passage, and then finding and adjusting to it comfortable positions of the fingers and hands, the right sensations. Therefore, speaking about how to perform this passage, I'm ready to immediately make the student repeat the same place 20 times until he reaches the desired sonority.

One of the common types of technical studies is studies on the development of finger fluency, built on a gamma-like pattern in the part of the right or left hand accompanied by chord accompaniment, sometimes with the transition of a figurative movement from one hand to another, or using such movement in both hands.

In the first 1-2 years of training of this type of studies, it is advisable to study studies in a slow and even motion, observe dynamic nuances, achieving good sound quality and gradually increasing the tempo.

It is necessary to pay special attention to the division of the material into separate phrases, the calm and timely transition from one phrase to another without bumping into a new phrase, or "playing" the last sounds of the previous phrase. To strengthen your fingers, it's useful, for example, to play a sketch based on a passive finger technique, clear, loud, or, conversely, light *staccato*. It is very advisable to play a sketch at an average pace of *legato* and *pianissimo*, playing "with one finger" and achieving maximum flatness of the sound line. It is also very useful to apply the method of work recommended by Leshetitsky: playing an etude at an average pace in rhythmically free movement. At the same time, the pace slightly slows down in those moments where there are any uncomfortable positions for the hand, or technically difficult combinations associated with a change in the figure pattern or with a change in the direction of movement, which contributes to the development of a feeling of freedom of the hand and fingers. This acquires not only the habit of smooth, free and uninhibited movements, but also fosters an attitude towards fast figurative passages as a flexible and rhythmically live *zyukov* line. On the contrary, the passage without any rhythmic deviations and dynamic diversity, dries the performance, leads to bare finger motility. At the same time, the student often involuntarily strains his hands in technically uncomfortable places.

Playing in a more free rhythm, the student should strive for flexible movements of the hand, which should guide the fingers while bringing them to the desired keys. When explaining the meaning and tasks of this kind of execution, it is necessary to pay special attention to the division of the material into separate phrases, a calm and timely transition from one phrase to another, without bumping into a new phrase, or playing the last sounds of the previous phrase.

Pedagogical practice convinces of the need, starting from the first years of learning to play the piano, to pay attention to the systematic work on etudes. This work cannot be limited only to the elementary tasks of performing musical text and technically clean play at a fast pace. The teacher must approach each sketch with the same exactingness as the work of art with respect to the nuance and sound quality, phrasing, and the general nature of the interpretation of this sketch as a whole.

If a technical study of an instructive type does not constitute a truly artistic work in the sense of ideological and emotional content, then in any case, any good study has a certain sound image and sound character (light and elegant, strong-willed and swift, lyrical and melodious, rhythmically emphasized, or on the contrary, calm and smooth in its movement, etc.). To determine and explain to the student the nature of the given study and to achieve its appropriate execution is the task of the teacher. It is this kind of careful work on the sketch that is beneficial, preparing the student for more complex tasks of performing works of art. An equally important role is played by the selection of studies for each student. When choosing studies, the teacher should keep in mind the need for the gradual and consistent development and accumulation of a variety of executive skills in the student. Therefore, it is imperative that, in terms of the educational work of students, etudes of various types and character on various types of equipment be provided. Along with such planned "accumulation" of technical skills, one or another study should be included in the list of envisaged studies, given in connection with the

proposed work on a specific play, where difficulties are encountered that require appropriate preparation to overcome them.

The choice of studies, therefore, should not be random, and, conversely, should be the result of serious consideration of the individual characteristics of each student and the entire plan of work with him for several months. In studies, one should accustom the student to hold the learned material for a more or less long period in memory and in the “fingers”. With regard to studies, this is important not only for accumulating as much as possible learned in the repertoire, but also so that the acquired technical skills are firmly entrenched in practice. In addition, the ability to play four, five sketches for various types of equipment in a row serves as a training for the development of physical endurance, preparing the student for the execution of a relatively large program in exams, and subsequently in concerts.

If, on the contrary, often there is no time for thorough work on sketches, for checking work on scales, in all likelihood the teacher will notice a lag in the student’s motor skills over time. The fault will lie in both cases only with the teacher. It is more advisable to start the lesson with work on a work that is currently the most difficult for the student. The teacher should never lose sight of his main goal - ensuring the comprehensive development of the student - and he must also remember that any task of him as a teacher can be solved only through long systematic work in one direction or another. In addition to working on works, plays, sketches, which occupy a leading place in the lesson, students also include the performance of the training material of the arpeggio scale, the work on reading from the sheet raler and arpeggio are studied in accordance with the programs of the music school and music school.

During classes at the school, the teacher gradually passes with the student all scales and arpeggios, explaining a particular new type in the lesson, showing the student carefully controlling his work. Good sheet reading skills are of great importance both for the freedom of acquaintance of a student with musical literature, and for faster mastery of the studied works. Therefore, it is important that the teacher pay attention to this area of the student’s development, giving her systematically at least a little time.

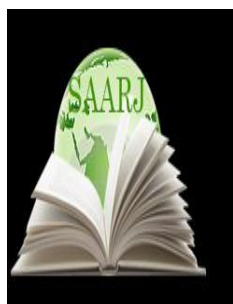
For training and reading from a sheet, you can ask simple works to parse at home, checking the tasks in the lesson. It is also useful for students to perform four-handed works from the worksheet with the teacher. Performing four hands with a teacher or with another student of children's plays of a young student will also contribute to his musical enrichment.

### **III.CONCLUSION**

If the teacher has a pianist of all the qualities he needs, the success in solving his tasks depends on his ability to organize work with the student in the lesson. In the lesson, the teacher directs the entire musical and pianistic development of the student. In the lesson, in an organic connection with the whole process of classes, the teacher directs his upbringing. Therefore, it is necessary that the teacher not only understands the whole enormous significance of the task of preparing the young pianist assigned to him, but also recognizes the importance of each individual lesson for the student.

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## METHODS OF DEVELOPING SPEECH CULTURE IN THE NATIVE LANGUAGE OF PRIMARY SCHOOL STUDENTS

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### ABSTRACT

*The development of any state depends on the achievements in the field of education, its compliance with world standards and its place in practice. Quality changes are determined by the ability to introduce positive innovations in this area. Introducing such an innovation, in turn, is an imitation process, which is to achieve effectiveness in education. Of particular importance are the changes that are taking place in teaching storytelling based on pedagogical technologies. In the education of the future generation, a deep understanding of fiction, the formation of independence and independent work, the habituation of research, the development of intelligent and knowledgeable people who quickly understand the essence of life events should begin from primary school. The following article discusses how elementary school students can speak their native language fluently and how to develop a culture of speech.*

**KEYWORDS:** *Speech Culture, Internal Speech, Oral Speech, Presence Of Speech, Presence Of Speech, Accuracy Of Speech, Richness Of Speech Language Tools, Speech Comprehensibility, Expressiveness Of Speech, The Correctness Of The Speech.*

### INTRODUCTION

At present, in the conditions of the independent Republic, public education is experiencing a period of development. This uniqueness is, first of all, in the process of nationalization of the content of education, that is, in the process of our very rich history, culture, science, language, which, by its very nature, has a high human and moral content. We were lucky to teach the younger generation. Nurturing high moral qualities requires, first of all, the inculcation of these qualities in ourselves<sup>1</sup>. At the same time, it requires a new approach to education, the use of new

methods and content, forms and tools. Tasks cannot be done in the old way. The experience of many scientists shows that we can solve these problems on the basis of new pedagogical technologies. Teaching in the primary school provides ample opportunity for students to develop a culture of speech. Practical mastery of the language in all classroom activities, including native language classes, learning the methods of correct pronunciation.

People use language as a tool to express their thoughts. They think about it before they express their thoughts aloud. This is internal speech. Internal speech is unheard and unwritten, "thought" (thought) speech, which is directed to the thinking person. External speech is speech addressed to others by means of sounds or written with graphic symbols. while in external speech the sound is produced or recorded as a result of the action of the members of the speech, in the internal speech the action of the members of the speech occurs without sound.

The main task facing the public education of the Republic is to bring up and bring up healthy, talented people who are fully developed, loyal to their Motherland and people. Achieving this great goal requires a creative approach to their work from all employees and the general public of the public education system, the development of various methodological methods to achieve high efficiency in each work and its implementation in school life. requires. Today's students are well-educated people who have benefited from a number of scientific and technological advances.

It is necessary to educate the student, to enrich the content of each lesson, to incorporate interesting lessons into the teaching process. Psychologists have found that children are more likely to think for themselves through a variety of mental experiences than through information obtained through a simple teacher's explanation.

They will remember for a long time the knowledge they have acquired through their independent work. Because the student works on independent exercises and thinks of many learning materials based on previous knowledge. Compares similar events. Makes independent judgments based on self-reflection. According to the teachers, the student learns the correct answer without thinking. Faced with similar events, the teacher finds it difficult to apply the knowledge in practice. The materials required by the state educational standards and the current school curricula are more complex and require children to gradually acquire, expand and develop this knowledge.

## **MATERIALS**

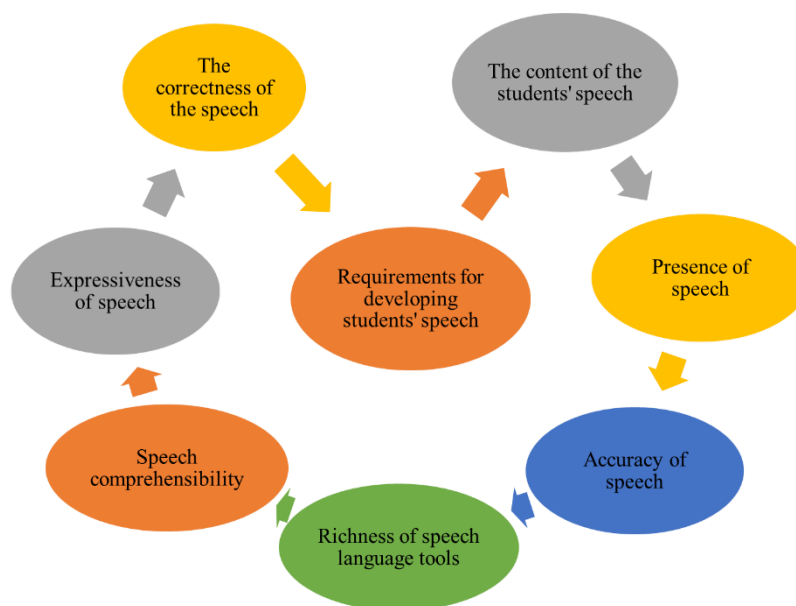
Internal speech helps to understand and memorize the material, is the only necessary tool in cultivating external speech. Thinking is based on inner speech. Internal speech teaches the reader to speak external, with a sense of responsibility. Thinking in the process of internal speech is an important tool in the growth of the student's speech and thinking. In school, not only the external speech of the students but also the internal speech is cultivated. Children learn to read internally and master the material in internal speech, solve various tasks on their own, and most importantly, prepare their own oral and written ideas.

Depending on the method of expression, the speech will be oral and written. Oral speech differs from written speech in the following way: oral speech is sound speech, and written speech is graphic speech. In oral speech, the sense of hearing plays a key role, while in written speech, the sense of sight and movement (hand movement) play a key role. Both oral and written speech serve as tools of human interaction, but oral speech occurs in real life situations, in the process of

direct communication; written speech is used both directly, in isolation from specific conditions, and without human intervention. Oral speech is often in the form of dialogue, while written speech is in the form of a monologue. Written speech requires narration in a logical sequence, without dropping certain language forms and without allowing excessive repetition. Therefore, written speech is much more complex and abstract.

To date, much has been done to teach children fiction and improve their speech. Because if the child's speech is developed in primary education, if they are introduced to storytelling, if the representatives of children's literature and the system of work on fiction are standardized, then the issues related to speech in the later stages of a child's life. will be somewhat eliminated. The work on teaching students to tell stories as a type of fluent speech is taught in many scientific literature as a monologue from the age of 5-6. At the same time, K. Shodiyeva, who has a special role in the field of primary education, expressed her views on the work on speech in teaching reading, as well as in the speech of F.R.Kodirova, M.R.Kadirova and others. S. Jumaboyev's views on working with fiction and teaching storytelling, with children on fiction.

There are a number of requirements for developing students' speech and they are followed:



1. *The content of the students' speech.* A story or essay will only be meaningful if it is based on facts that are well known to students, their observations, life experiences, and information from books, pictures, radio, and television. If children are allowed to talk about things they do not know, events they have not seen, without sufficient preparation, the speech will be meaningless. The methodology of speech development requires careful preparation of the material for the story, essay, that is, the collection of material, its discussion, completion, separation of the main content, placement in the required sequence. Of course, this also takes into account the age characteristics and interests of students.

2. *Presence of speech.* Students' speech is required to be logically correct, the idea to be stated consistently, reasonably, the main points should not be omitted, and inappropriate repetition, unrelated to the topic should not be allowed. The logic of speech is determined by a good

knowledge of things, events, and a logical error is the result of not knowing the exact content of the material, an awkward choice of subject without thinking. These two requirements relate to the content and structure of speech. There are also requirements for the formation of speech in terms of language.

3. *Accuracy of speech.* The reader not only simply states the facts, observations, and impressions in accordance with the truth, but also uses the best language tools for this purpose.

4. *Richness of speech language tools.* In order to express the content clearly, the student's speech should be rich in language tools, he should be able to use the necessary synonyms, different structured sentences in any situation, choosing the most appropriate for the content. Of course, it is not possible to set high standards for language skills for primary school students, but the teacher should always consider increasing their vocabulary in their teaching.

5. *Speech comprehensibility.* Oral speech should be understandable to the listener, and written speech should be understandable to the reader. If a speaker or writer composes a speech taking into account the ability and interest of the listener or reader, everyone will understand it equally, without any difficulty.

6. *Expressiveness of speech.* If the speech is expressive, that is, vivid, convincing, it will affect the listener or the reader. While oral speech affects the listener through intonation, both oral and written speech affect the listener and the reader through the general spirit of the story, the arguments, the selected words, their emotionality, the structured sentence, the phrases. The intelligibility and expressiveness of speech requires that it be free from any dialectal and superfluous words.

7. *The correctness of the speech.* For school students, it is especially important that the speech conforms to literary language norms and is accurate. Written speech requires grammatical, spelling, and punctuation, while oral speech requires orthoepically correct structure. Word choice and speech logic are important for speech to be accurate.

## METHODS

Primary school lessons have a special place in the education system according to their nature, goals and objectives. Because it is based on the basics of literacy and moral education. Therefore, it is impossible to imagine the teaching of other subjects without reading. The student encounters the text for the first time in reading lessons by reading the text correctly, quickly, comprehensibly, and mastering the content. Reading lessons allow students to acquire the intended learning skills and knowledge. It is in the study of reading that a person's motivation is first and foremost to understand himself and the world.

To this end, the textbooks include various topics such as Mother Nature, the world around us, the history and modern image of our country, the lives of adults and children, hard work, independence and national and spiritual values, friendship and peace. includes works of art, ethics, education, science and popular science, intended to provide a comprehensive understanding of the subject. If the reading lessons are organized in the form of introducing students to syllables, words and phrases during the literacy training period and reading them, narrating them on the basis of pictures, after mastering the reading technique, reading is defined. on the basis of selected artistic, scientific and popular texts on themes. Topics of socio-historical

content give a clear idea of the past of our country, the life of our people, the heroic struggle, the work done by great figures, historical dates.

One of the tasks of educating students is to form their worldview. This is a prerequisite for purposeful work in solving the task. It is the successful development of the student as a person. The following factors determine the way students form a scientific worldview in relation to language teaching.

- + The essence of language as a social phenomenon. It consists of expressing its communication function. A key area of language teaching in school, including the primary grades, is to help students understand the communicative function of language.
- + Thinking with language is inextricably linked, and thinking is expressed through words. Language is a product of thinking and does not live outside the mind.
- + Language and thought are secondary to the material being that surrounds us.
- + Language is a complex, multifaceted phenomenon in which all aspects are dialectically interconnected and united. In the process of communication, all aspects of language affect each other, only in this case, the language appears in the performance of its communication function.

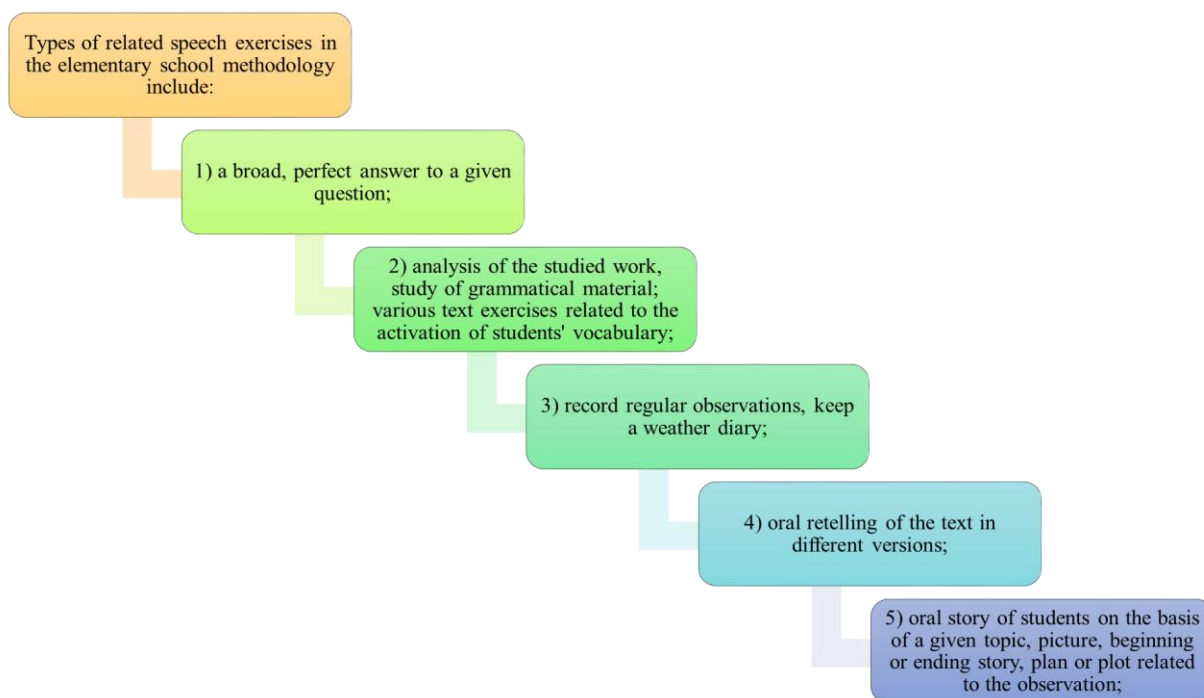
To help you clearly understand its role in society:

- It is important to ensure that students understand the role of each language unit in our speech in the learning process. Students learn in the process of understanding the communication function of language, the function of the basic units of language (phoneme, morpheme, word, phrase) sentences.

- Students' understanding of the communicative function of language "What role does language play in the life of everyone and society as a whole?" has a creative impact on finding answers to questions as a team. As they grow older, they begin to understand the role of language in human development.

- The formation of students' perception of language as a social phenomenon has a positive effect on the formation of language in the language, that is, the solution of the mystery of the origin of words, which corresponds to their level.

Today, a variety of methods and techniques are being used to enhance students' speech. Types of related speech exercises in the elementary school methodology include:



Language tools are mastered during reading, conversation, text analysis; The words and speech in the text become the children's 'own'. In retelling, the child tries to recall a sentence in the sample, composes sentences to convey the content more fully and accurately. This increases the student's level of independence and cognitive activity, and creative elements are added. In retelling, it is important to maintain consistency, coherence, and basic facts, especially when re-narrating a scientific text.

From time to time, retelling a text that has been heard before, read by the teacher, or recorded on the radio or television, or the use of retelling after the student has read it aloud or in person, can also be used in practice. This allows the work to be done in a variety of styles and enlivens it.

It is best to start teaching children to write their thoughts independently (to narrate a text they have read) as early as possible. To do this, students are taught to write a sentence from a separate word used in oral storytelling, then to write parts of the text, and from 2nd grade to write a statement based on a specially selected small text.

The work is organized as follows: the text selected for the narration is read by students once or twice (the teacher can also read it); a conversation will be held to determine whether the children have correctly understood the content of the text, to fully understand the text they have read, its ideological content, the relationship between the parts; a text plan is created (a plan can also be created during a conversation); vocabulary work (analyzing the meaning and spelling of the word), focusing on more important syntactic structures and descriptive means of language. Some sentences, even parts of text, are composed; students write the text independently, and the teacher monitors their work, helping individual children individually without interrupting other students in the class; The children check, improve their written statements and submit them to the teacher for review. When discussing a student essay, it is helpful to compare the text with the

text, which will help identify gaps in the content of the work and in the language of the children's statement.

Moreover, the word art plays an important role in working with primary school students. Children love to hear folk tales, poems, stories. Children's literature, first of all, has its own interesting content, the beauty of artistic images, The expressiveness of the language, the musicality of the poetic words bring joy to children. At the same time, it has an educational effect on children. The Great Russian Democratic V.G Belinsky's children's book is written for upbringing, "Education is a great work, it is human, He will decide his destiny. " The value of fiction lies in the fact that it affects a child's development in every way. Fiction protects the child from the nature of the native land, the work and life of the people, their deeds and heroism, the stories of children's lives, children's games, hobbies and hard work. By illuminating people's inner worlds and showing their characters, feelings, and actions, as well as the writer's attitude to the events depicted, works of fiction make the child excited, sympathetic to the protagonists, or condemned. The best works of fiction help children to do something good or bad, fair or unfair, right or wrong. The interesting content of the book shows the examples of friendship, honesty, diligence, camaraderie. Children's works of fiction also have a great impact on aesthetic education. Bright images of works of art, poetic landscapes of nature, musical poetry, children like the sharpness and expressiveness of the language. Children feel the power of artistic expression, quickly and easily remember small fairy tales, folk songs and poems.

## RESULTS

After reviewing the methods studied, we can add that the role of essay is also important in developing students 'speech. To increase the educational value of the essay, the following should be observed:

1. To cultivate independence in students by conducting regular oral and written essays, following the principle of easy-to-difficult. Independent essay increases student activity.
2. Linking the essay to life. In this case, the educational value of observational essays, diaries, essays in the form of "reports" on the work done, letters, articles, reviews of books read is very important.

Essays on labor or production include "Our Village", "Cabbage Cutting", "In the Garden", "Our Community Farm", "In the Post Office", "In the Shop", "Helping Cotton Growers", "Our Hashar" , "School on a plot of land", "Tree planting". "What do I know?" children are very interested in the competition on the topic. The competition not only identifies children's work skills, but also encourages them to work at home, in the garden, in the garden. The goal is to cultivate respect for work that benefits people. Rural schoolchildren write to their parents about how they helped them grow vegetables, harvest crops, and prepare firewood. An essay on labor is discussed in class. Children explain the essence of labor as a useful, necessary social activity. They say that any labor is rewarded. About the future "Who do I want to be?" an unprepared narrative essay on the subject also has great educational power.

Expressive reading and analysis of a well-written essay in the classroom educates children. Some schools have a collection of children's essays and even children's poems, and a competition for a well-written story.

The verbal formulation of an idea ensures that it is clear, understandable, pure, consistent, logical. Mastering the language creates the conditions for learning the phonetics, vocabulary, grammatical structure of the language, to improve thinking, to develop thinking. Knowledge, evidence, all kinds of information are the material of both thinking and speech. Speech is an important tool for studying the process of thinking. Speech is used as one of the main dimensions of a student's intellectual development. When thinking about the student's mastery of the material from all subjects and general mental development, it is considered how the student can express this or that topic in his speech (written essay, information, retelling, answering questions). Thus, speech is inseparable from thinking, speech develops on the basis of thinking; the thought matures through speech, emerges. On the other hand, the growth of speech helps to shape thought, improves it.

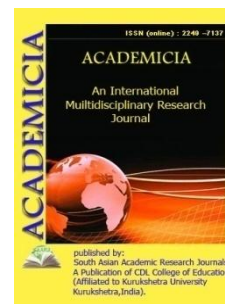
## CONCLUSION

In conclusion, we talked about in the process of writing an article, we need to pay special attention to the development of students' speaking and thinking skills, as well as their oral and written speech, as well as their ability to write their thoughts competently. The organization of speech in the classroom, mainly in fiction classes, as well as in writing classes and extracurricular activities, plays an important role in developing the skills of speaking in primary school students. Here, too, the teacher's free and clear speech is one of the most important conditions for the development of children's speech and thinking. High speech culture is an important condition for the wise use of time by the teacher, which requires the teacher to teach students to tell stories in a timely manner. This means that speech activity is formed and improved in different periods.

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## THE IN VIVO ACCLIMATIZATION OF CHERRY ROOTSTOCK KRYMSK 5 (VSL-2) MICROPROPAGATED ON DIFFERENT CULTURE MEDIA

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### ABSTRACT

*This article presents new aspects regarding the influence of nutrient media on acclimatization of cherry rootstock Krymsk 5 (VSL-2). Experiments are carried out for estimating the effect of nutrient media: MS, mMS DKW, WPM on acclimatization of cherry plantlets. The shoot length and width are measured periodically. The highest mean shoot length of Krymsk 5 in acclimatization were observed in DKW media:  $4,55 \pm 0,22$  cm after 30 days, and followed by  $118,87 \pm 2,56$  cm growth after 160 days in transferring to the field. The DKW nutrient media is found the most suitable among four nutrient media for acclimatization development of Krymsk®5 explants.*

**KEYWORDS:** *Acclimatization, Micropropagation, Continuously*

### 1. INTRODUCTION.

The effective application of techniques of micropropagation of fruit plants are common in today's world horticulture. These techniques are most efficient for rootstock propagation [1,2]. There is not unique nutrient media for micropropagation of all plants; they differ in inorganic salt and organic molecules composition [3]. Acclimatization is defined as the climatic or environmental adaptation of an organism, especially a plant, to a new environment. Substantial numbers of in vitro cultured plants do not survive transfer from in vitro conditions to the greenhouse or field environments. Plantlets or shoots that have been grown in vitro have been continuously exposed to a unique microenvironment that has been selected to provide minimal

stress and nearly optimal conditions for plant multiplication. Plantlets are often developed within the culture vessel under low light intensity, aseptic conditions [4,5,6] and on a medium containing ample sugar and nutrients to allow for heterotrophic growth and in an atmosphere with high levels of humidity. These conditions result in the formation of plantlets of abnormal morphology, anatomy and physiology.

## 2. Materials and methods.

Before acclimatization process, all in vitro rooted plantlets were gently washed in distilled water to eliminate any nutrient media remnants. Consequently, explants were planted to plastic containers with peat filled cell trays, after which all containers were covered by plastic glasses and then, were maintained in acclimatization room with 25°C temperature. The containers kept closed for 4 days in order to provide high humidity. The containers are ventilated with air by opening the containers. The containers are opened frequently for a short time in the beginning of acclimatization, after they are opened for longer period. The peat and seedlings are watered frequently in the beginning of acclimatization, after they watered rarely. High humidity provides fungal contamination; the seedlings must be treated with Topas® and Khom® fungicide solutions to prevent the contamination. The high light intensity are provided for autotrophic growth of seedlings, these are cultured in mixotrophic mode during in vitro propagation. The seedlings were incubated in the growth rooms at  $23 \pm 1$  °C, 6500-lux light intensity and 16 hours daylight/8 hours darkness photoperiod.

## 3. RESULTS AND DISCUSSION

Growth dynamics on acclimatization period of Krymsk 5 plantlets were studied which were micropropagated in different nutrient media. The highest shoot growth length ( $4.55 \pm 0.22$  cm) was established in DKW media propagated plantlets while the lowest shooting length ( $3.95 \pm 0.14$  cm) was established plantlets which was propagated in standard MS (MS(st)). Krymsk 5 explants which planted in modified MS (MSm) and WPM showed shooting length of  $4.05 \pm 0.18$  cm and  $4.21 \pm 0.15$  cm respectively (Table 1).

**TABLE 1 GROWTH DYNAMICS OF KRYMSK 5 PLANTLETS IN ACCLIMATIZATION ROOM (CM).**

№	Nutrient media	day1	day5	day10	day15	day20	day25	day30
1	MS(st)	$3.08 \pm 0.13$	$3.31 \pm 0.13$	$3.56 \pm 0.14$	$3.74 \pm 0.14$	$3.78 \pm 0.14$	$3.92 \pm 0.14$	$3.95 \pm 0.14$
2	DKW	$2.96 \pm 0.14$	$3.19 \pm 0.14$	$3.48 \pm 0.15$	$3.65 \pm 0.15$	$4.10 \pm 0.20$	$4.46 \pm 0.22$	$4.55 \pm 0.22$
3	MSm	$3.03 \pm 0.15$	$3.15 \pm 0.13$	$3.53 \pm 0.15$	$3.62 \pm 0.18$	$3.81 \pm 0.14$	$3.98 \pm 0.19$	$4.05 \pm 0.18$
4	WPM	$2.98 \pm 0.13$	$3.10 \pm 0.18$	$3.38 \pm 0.18$	$3.61 \pm 0.17$	$4.05 \pm 0.21$	$4.13 \pm 0.21$	$4.21 \pm 0.15$

Field (*in vivo*) growth dynamics of different media micropropagated plantlets were studied according to two aspects: shoot growth and shoot width.

*The Shoot height.* According to the results, the highest rates were demonstrated by plantlets, which were developed in DKW media ( $118.87 \pm 2.56$  cm), while the lowest rates were mentioned at standard MS ( $92.87 \pm 3.59$  cm). Modified MS and WPM were demonstrated an average results:  $108.82 \pm 2.62$  cm and  $112.75 \pm 3.23$  cm respectively (Table 2).

**TABLE 2 IN VIVO CONDITIONS SHOOT HEIGHT RESULTS INDICATORS OF IN VITRO MICROPROPAGATED KRYMSK 5 PLANTLETS (CM)**

№	Nutrient media	Day 1	Day 20	Day 40	Day 60	Day 80	Day 100	Day 120	Day 140	Day 160
1	MS(st)	21,52 ±0,49	25,52± 0,69	32,67 ±1,20	40,62 ±1,75	59,10 ±2,47	67,60 ±3,14	80,50 ±3,80	87,47± 3,52	92,87 ±3,59
2	DKW	32,37 ±1,36	36,45± 1,23	44,27 ±1,26	52,42 ±1,48	71,30 ±2,48	78,75 ±3,48	99,23 ±2,52	116,14±2 ,76	118,8 7±2,5 6
3	MSm	39,30 ±1,14	41,73± 1,01	46,70 ±1,04	51,73 ±1,27	68,55 ±1,91	79,40 ±1,99	98,80 ±2,63	104,00±2 ,48	108,8 2±2,6 2
4	WPM	35,45 ±1,30	38,57± 1,18	44,32 ±1,17	49,47 ±1,37	68,07 ±2,22	84,62 ±2,76	103,7 2±2,9 1	112,03±3 ,13	112,7 5±3,2 3

*The shoot width.* The highest mean value of shoot width was observed in DKW media, 10,68±0,21mm. The shoots cultured in WPM and mMS followed after, the mean shoot widths were 9,36±0,28mm and 8,55±0,25 mm, respectively. The lowest mean value of shoot width was observed MS media, 7,66±0,23 mm (Table 3).

**TABLE 3 IN VIVO CONDITIONS SHOOT WIDTH RESULTS INDICATORS OF IN VITRO MICROPROPAGATED KRYMSK 5 PLANTLETS (MM)**

№	Nutrient media	Day 1	Day 20	Day 40	Day 60	Day 80	Day 100	Day 120	Day 140	Day 160
1	MS(st)	2,09± 0,05	2,39± 0,06	2,88± 0,08	3,46± 0,11	4,81± 0,13	5,05± 0,15	5,57± 0,14	6,75± 0,22	7,66±0,23
2	DKW	2,43± 0,10	2,88± 0,10	3,84± 0,11	4,75± 0,13	5,83± 0,17	6,44± 0,19	7,10± 0,15	8,46± 0,21	10,68±0,21
3	MSm	2,43± 0,10	2,94± 0,10	3,92± 0,09	5,24± 0,13	5,60± 0,14	6,13± 0,14	6,79± 0,16	7,81± 0,21	8,55±0,25
4	WPM	2,53± 0,15	3,07± 0,14	4,00± 0,12	4,85± 0,14	5,90± 0,15	6,36± 0,15	6,76± 0,17	7,81± 0,19	9,36±0,28

#### 4. CONCLUSION

According to research results, it is established in vitro micropropagation of Krymsk 5 the most effective nutrient media was DKW. DKW was followed by WPM and the lower results were obtained in standart MS nutrient media in vitro micropropagation of Krymsk 5. Well-developed root system plays a vital role in acclimatization process, which provide good basis for adaptation to new conditions. Due to careful treatment in acclimatization period, persistence of plants was 90%. Based on results of the survey the media protocol to micropropagate of Krymsk 5 can be established in industrial production scale.

**Abbreviations:**

**MS (st)**—standard Murasige and Skoog Media (Murasige and Skoog, 1962)

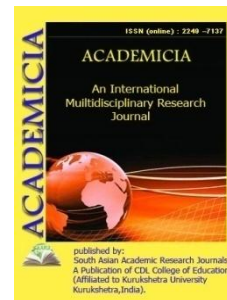
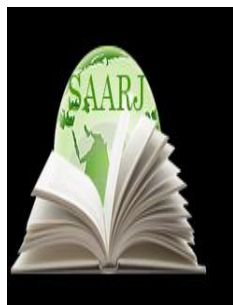
**MSm** - modified Murasige and Skoog

**DKW**— Driver and Kuniyuki Walnut (Driver and Kuniyuki 1984)

**WPM** - Woody Plant Media

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## ORGANIZATIONAL COMMITMENT IN THE COMMERCIAL BANKS IN SRI LANKA: A STUDY OF RELATIONSHIP BETWEEN JOB SATISFACTION & PERFORMANCE

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### ABSTRACT

*The purpose of this study was to investigate the relationship among job satisfaction, organizational commitment and job performance of non - managerial employees in the commercial banks in Sri Lanka. The sample consisted of 400 non - managerial employees randomly selected from Systemically Important Banks. A questionnaire was administered among the non - managerial employees as the measuring instrument. The collected data were analyzed using correlation coefficient and simple regression. The results of the study indicated that there was a positive relationship between job satisfaction and job performance, job satisfaction and organizational commitment, organizational commitment and job performance. Organizational commitment was found to mediate the relationship between job satisfaction and job performance of non-managerial employees in the commercial banks in Sri Lanka.*

**KEY WORDS:** *Organizational Commitment, Job Satisfaction, Job performance, Mediating Effect*

### INTRODUCTION

The importance of human factor has not decreased because the human involvement is yet to be considered as a significant element in the banking sector. The quality of the staff has significant impact on the customer satisfaction and overall performance of the banking sector.

Job Performance (JP), Job Satisfaction (JS) and Organizational Commitment (OC) of the employees are the key factors in deciding the success or failure of any organization. Banking being a service sector industry, these factors are further significant because the well satisfied,

high committed and high performed employees are more crucial for the customer satisfaction and overall performance.

Gabbott and Hogg (1997) argue that employees' JP in particular is considered to be a key individual outcome in the financial and banking services context. In this context, bank employees play an important role in delivering high quality services, promoting the corporate image and improving customer satisfaction (Karatepe and Tekinkus, 2006). Thus, the enhancing the JP of the employees is the high priority of any manager. Lots of researchers and practitioners have focused their researches to find out the antecedents of JP. Among them, personality (Ones & Viswesvaran, 2001), job satisfaction (Iaffaldano & Muchinsky, 1985, Judge *et al.*, 2001), Organizational commitment (Baugh & Roberts, 1994; Meyer *et al.*, 1993), Job involvement (Brown, 1996; Robbins, 2003), work attitudes-organizational commitment and job involvement- (Blau, 1986), motivation (Moorhead and Griffin, 1999), organizational culture (Moorhead and Griffin, 1999), organizational structure (Robbins, 2003), leadership (Mullins, 1996) are the most investigated antecedents of JP. Among them, job satisfaction and organizational commitment are the most significant factors in determining the JP.

JS is a positive emotional response towards the various aspects of job resulting from what the employees want and value from their job (Olsen, 1993). It is closely associated with life satisfaction, job performance, Organizational Commitment, Job Involvement, physical and mental health, absenteeism, turnover, labour problem, labour grievances (Buitendach & De Witte, 2005). Among these different associations, the relationship between JS and job performance has fascinated researchers for decades and several theoretical explanations have been posited to explain this relationship (Schleicher, Watt, & Greguras, 2004). In turn, OC has received substantial attention in past research due to its significant impact on work outcomes. Some researchers point out that organization whose members have higher levels of commitment show higher performance, productivity and lower levels of absenteeism and tardiness. This implies that employees with a high level of commitment tend to take greater effort to perform and invest their resources in the organization.

In reviewing the literature, there exists a substantial amount of research on the relationship between JS and JP whereas a sizable literature has investigated the relationship between JS and OC and OC and JP. Anyway, the mediating effect of OC on the relationship between JS and JP has received little attention in previous researches. In Sri Lanka, there are few researches on the relationship between JS and JP but nothing can be found in the mediating effect of OC on the relationship between JS and JP in the commercial banks. Therefore, it seems that there is a research gap in the commercial banks in Sri Lanka.

### **Problem Statement**

In order to improve the JP of the employees, the managers have to identify the factors affecting to JP and their impact. In reviewing the literature, lots of researchers have identified different factors affecting to JP. Among them, JS and OC of the employees are identified as the most influential factors which shape the employees' JP. In turn, there are relationship between JS and OC and OC and JP. Anyway, there were no researches on the mediating effect of OC in the banking sector in Sri Lanka. Therefore, the problems addressed in this study are to investigate:

1. How and in what ways does JS and OC affect on JP of non - managerial Employees in the commercial banks in Sri Lanka?

2. Does OC mediate the relationship between JS and JP of non-managerial employees in the commercial banks in Sri Lanka?

### OBJECTIVES OF THE STUDY

1. To identify the relationship between JS and JP of non-managerial employees in the commercial banks
2. To investigate the impact of JS on OC of non-managerial employees in the commercial banks
3. To identify the relationship between OC and JP of non-managerial employees in the commercial banks
4. To identify whether the OC can be used as a mediating variable between JS and JP among the non-managerial employees in the commercial banks

### LITERATURE REVIEW

#### Job Performance

Traditionally, JP was evaluated in terms of the proficiency with which an individual carried out the tasks that were specified in their job description. It has been conceptualized in terms of the execution and completion of well-defined task as a one dimension (Borman & Motowidlo, 1993). According to Moorhead and Griffin (1999), JP is all of the total set of work related behaviors that the organization expects from the individuals to display. Motowidlo, Borman and Schmit (1997) define JP as behaviors or activities that are oriented towards the organization's goals and objectives. However, the changing nature of work and organizations has challenged traditional views of JP. Today, JP is defined as a multidimensional construct.

The Task Performance (TP) and Contextual Performance (CP) have been received the most attention in the recent research (Borman and Motowidlo, 1993). According to Borman and Motowidlo (1993) the TP is the behavior that is directly linked with completion of the job. When employees use technical skills and knowledge to produce goods or services through the organization's core technical processes, or when they accomplished specialized tasks that support these core functions, they are engaging in TP. Task related behaviors contribute to the technical core of the organization. Furthermore, they explain TP including those aspects of a job that contribute directly to the technical object of the organization. These behaviors are predominantly task oriented and are included in formal job descriptions and may represent a key performance indicator. Behaviour in the domain of TP is usually recognized as a formal requirement of an individuals' job. Job description often explicitly stipulates that the job holders must perform these activities. According to another conceptualization on TP refers to activities that are formally part of a worker's job. These activities are two types. The first type includes activities that contribute directly to the "technical core" of the organization and the second type includes activities that support the technical core. TP involves all behaviors that are directly relevant to main job functions and in short, is the proficiency of activities that formally are recognized as part of workers "job" (Borman and Motowidlo, 1993).

Borman and Motowidlo (1993) define CP as an individual's performance, which maintain and enhances an organization's social network and the psychological climate that supports technical tasks. CP is comprised of interpersonal behaviors or actions that benefit the organization. Furthermore, they explained that CP includes activities that may not represent formal work tasks

although they still make an important contribution to the effectiveness of an organization. This type of performance is often not written in a job description but it is considered to be an important component of JP. CP is behavior that contributes to the culture and climate of the organization. It is the context within which transformation and maintenance activities are carried out. CP consist the behavior of volunteering for extra work, persisting with enthusiasm, helping and cooperating with others, following rules and procedures and supporting or defending the organization (Motowidlo and Schmit, 1999). Borman&Motowidlo (1993), define CP as behaviors that shape the organizational, social and psychological context that serve as catalyst for task activities and processes.

### **Job Satisfaction**

According to the literature, there are various conceptualizations of JS. Most researchers conceptualize it as cognitive, affective and evaluative reactions. Locke (1976) defines JS as a pleasurable or positive emotional states resulting from the appraisal of one's job or job experience. JS is a result of employee's perception of how well their job provides those things that are viewed as important. According to Henne and Locke (1985), JS is an emotional response to a value judgment by an individual worker. If his job values are perceived as being fulfilled, he will experience the pleasurable emotions of satisfaction; if they are perceived as being frustrated, he will experience the unpleasurable emotion of dissatisfaction. The intensity of these emotional reactions will depend on the importance of the values whose fulfillment is being facilitated or frustrated by the work experience.

Some researchers define JS in terms of feeling, attitudes and beliefs. Robbins (2000) defines JS as a subjective measure of worker attitudes, that is, an individual's general attitudes to his or her job. A person with high JS holds positive attitudes towards the job and one who is dissatisfied with, has negative attitudes toward it. George and Jones (1996) define it as "the collection of feeling and beliefs that people have about their current jobs. Ivancevich and Mattson (2005) defines JS as an attitude that individuals have towards their jobs which stems from their perception of their jobs and the degree to which there is a good fit between the individual and the organization.

### **Organizational Commitment**

OC researchers can be divided into two major camps, those who view OC as an attitude and those who view it as behaviors (Meyer and Allen, 1991). They regard attitudinal commitment as the way people feel and think about their organizations. That is the employee attitude that reflects the nature and quality of the linkage between an employee and an organization. Behavioral commitment reflects the way individual have become locked into the organizations.

According to Poter et al., (1984) an attitudinal perspective refers to the psychological attachment or Affective Commitment (AC) formed by an employee in relation to his identification and involvement with the respective organization. They further explain this as "an attachment to the organization, characterized by intention to remain in it, identification with the values and goals of the organization, and a willingness to exert extra effort on its behalf." It is considered to be the linkage between the individual employee and the organization because of individuals consider the extent to which their own values and goals related to that of the organization as part of OC.

Behavioral perspectives of OC is explained under the side bet theory (Becker, 1960) Side bets theory refers to the accumulation of investments valued by the individual which would be lost if she or he were to leave the organization (Becker, 1960). According to this theory individuals are committed to the organization as far as they hold their positions, irrespective of the stressful condition they experience. However, if they have been given alternative benefits, they will not to leave the organization. Mowday, Poter and Steers (1982) support the Becker's view and describe OC as a behavior relating to the process by which individuals become locked in to a certain organization.

Mayer and Allen (1990) viewed OC as multidimensional concept. They proposed a Three-Component Model, including: Affective Commitment (AC), continuance commitment (CC), and normative commitment (NC). AC refers to the employee's emotional attachment to, identification with, and involvement in the organization. CC refers to commitment based on the costs that the employee associates with leaving the organization due to the high cost of leaving. NC refers to an employee's feeling of obligation to remain with the organization based on the employee having internalized the values and goals of the organization.

### **Job Satisfaction, Organizational Commitment and Job Performance**

Previous research has devoted a great deal of attention to the relationship between JS and JP. Locke (1970), Iaffaldano & Muchinsky (1985), Abedel-Halim (1980), Parasuraman and Futrell (1983), Rao (2000), Judge et al., (2001), Sullivan and Bhaget (1992), Petty, McGee & Cavender (1984). Many studies revealed strong correlations between JS and OC. Poter & Steers (1973), Chen (2007), Clark & Larkin (1992), Mathieu and Zajac, (1990), Mathieu and Hamel (1989), Benkhoff (1997), Price and Mueller (1981), Iverson and Roy (1994), Yousef (2000), Samad (2005), Taunton et al., (1989), Williams and Hazer (1986). Previous research have studied the relationship between OC and JP and found positive relationship. Riketta (2002), Matheiu & Zajac (1990), Baugh and Roberts (1994), Meyer & Allen (1997), Randall (1990), Rao (2000), Mowday et al., (1982), Mitchell & Larson (1987), Keller (1997), Brett et al., (1995), Ward and Davis (1995). Based on these empirical evidences, the following hypotheses are formulated.

H1: There is a positive relationship between JS and JP of non-managerial employees in the commercial banks.

H2: There is a positive relationship between JS and OC of non-managerial employees in the commercial banks.

H3: There is a positive relationship between OC and JP of non-managerial employees in the commercial banks.

H4: OC mediates the relationship between JS and JP of non-managerial employees in the commercial banks.

### **RESEARCH METHODOLOGY**

#### **The research design**

The current study employed a correlational research design in order to explore the relationship between non-managerial employees' JS (independent variable) and non-managerial employees' JP (dependent variable). OC is the mediating variable. This field study is conducted in natural environment in banking sector under non-contrived settings. The unit of study is individual.

### Population and Sample

The population of this study is all the permanent non - managerial employees who work in Systemically Important Banks (highly performed commercial banks) in Sri Lanka. The sample for this study was randomly selected 400 non - managerial employees employed in Systemically Important Banks.

### The sampling method

Firstly, The Systemically Important Banks (SIBs) - Bank of Ceylon, Peoples Bank, Commercial Bank, Hatton National Bank, Sampath Bank and Seylan Bank- were selected. The convenient sampling method is used to select the branches of the bank which was situated in Colombo, Kurunegala and Anuradhapura. Then, with the consultation of the branch manager, four permanent non-managerial employees were selected in random basis.

### Measures

Non - managerial employees' JP was the dependent variable and JS of the non-managerial employees is the independent variable of this research. OC of non-managerial employees is the mediating variable. These variables were measured using a questionnaire which was originally developed by the researcher. The questionnaire was separated into three sections for demographic data, work related attitudes (JS & OC) and JP. Six questions were included to get the demographic information. The JP was measured including 19 questions under two dimensions (Task performance and Contextual performance). Under the work related attitudes, the level of JS and OC of the non - managerial employees in the banking sector were tested. 16 questions were used to measure the JS under six dimensions (Work itself, pay, promotion, supervision, coworkers and working condition). Nine questions were included to test the OC of the non-managerial employees under two dimensions (Willingness to display effort and Desire to belong to the organization). The total questions were 50.

### Validity and Reliability

The questionnaire which was prepared for non-managerial employees consists of 03 instruments (JS, OC and JP). All these instruments have been developed after correctly identifying the relevant dimensions and indicators. Therefore, it can be assured that the instrument has content validity. In developing OC instrument, Affective OC Scale, which was created by Meyer, Allen and Smith (1993), OC questionnaire, created by Meyer, Allen (1997) were considered. When developing JP questionnaire, Motowidlo and Van Scotter's (1994) 15 items scale of OCB and Task and Overall performance scale of Borman, and Ackerman (1994) were considered.

**TABLE 01 - ALPHA VALUE FOR TEST RETESTS RELIABILITY**

Variables	Alpha value
Job Performance	0.87
Job Satisfaction	0.90
Organizational Commitment	0.74

It can be concluded that the instruments possesses high test retest reliability as there is a significant high correlation between the responses of the two administrations.

The table 02 shows the Cronbach coefficient alpha for each instrument. According to the data, each item is correlated with other item across the entire sample and the internal consistency reliability is satisfactory.

**TABLE 02 - CRONBACH COEFFICIENT ALPHA VALUE FOR INTERNAL CONSISTENCY**

Variables	Alpha value –range
Job Performance	0.91
Job Satisfaction	0.90
Organizational Commitment	0.73

### Methods of data analysis

The data analysis included univariate, bivariate and multivariate analyses. Collected data were analyzed using the SPSS data analysis package.

### Results

The results of the univariate data are given in table 03. According to the data, the level of JS is in high level among the non-managerial employees who work in banking sector. The JP and OC are at moderate level.

**TABLE 03- THE RESULTS OF UNIVARIATE ANALYSIS**

	Mean	Std. Deviation
Job Satisfaction	3.50	0.57
Organizational Commitment	3.01	0.52
Job Performance	3.00	0.39

**TABLE 04- CORRELATION COEFFICIENT BETWEEN INDEPENDENT AND DEPENDENT VARIABLES**

Variables	1	2	3
1. Job Satisfaction	-		
2. Organizational Commitment	0.32(**)	-	
3. Job Performance	0.31(**)	0.67(**)	-

\*\* Correlation is significant at the 0.01 level.

**TABLE 05 - RESULTS OF SIMPLE REGRESSION ANALYSIS**

	JS & JP	OC & JP	JS & OC
R Square	0.134	0.381	0.057
Adjusted R Square	0.131	0.379	0.055
F Value	15.913	155.52	24.15
Significance	0.00	0.00	0.00
$\beta$	0.127	0.398	0.220

Table 05 presents the results of the regression analysis. According to the table, JS and OC have significantly and positively correlated to JP whereas JS has also significantly and positively correlated to OC.

**TABLE 06- REGRESSION ANALYSIS OF ORGANIZATIONAL COMMITMENT MEDIATING JOB SATISFACTION-JOB PERFORMANCE RELATIONSHIP**

	Step 01	Step 02
Job Satisfaction $\beta$	0.127(**)	0.042
Organizational Commitment $\beta$	-	0.387(**)
R	0.184	0.533
R <sup>2</sup>	0.034	0.284
F value	13.91	139.05

\*\* Correlation is significant at the 0.01 level.

According to the results of table 06, the introduction of OC in the analysis reduces the impact of JS. The  $\beta$  has dropped from 0.13 ( $P < 0.01$ ) in step 01 to 0.04 in step 02. OC remains a significant predictor in the last analysis. ( $\beta = 0.39, P < 0.01$ )

## DISCUSSION

The objectives of this study were to investigate the mediating effect of OC on the relationship between JS and JP of the non-managerial employees in the commercial banks in Sri Lanka and to identify the relationships of JS and JP, JS and OC, OC and JP of the non-managerial employees in the commercial banks in Sri Lanka. For this purpose, four hypotheses were formulated.

By considering the hypothesis one, the results of correlation coefficient and regression analysis indicated that JS of the non-managerial employees has positively and significantly correlated to their JP. The second hypothesis was that there was a positive relationship between JS and OC. It was confirmed that the relationship between JS and OC of non-managerial employees in the commercial banks has significantly and positively correlated. There is statistical evidence to accept the third hypothesis which was formulated in this study. The OC of the non-managerial employees has significantly and positively correlated to JP. It was the strongest correlation among the variables. It has significantly explained 38.1 % of the variance in job performance. Furthermore, the researcher formulated a hypothesis to investigate the mediating effect of OC on the relationship between JS and JP. For this purpose, the three steps which were recommended by Baron and Kenny in 1986 were used. According to these authors, the first, the mediator should be predicted by the independent variable. Table 05 already showed that OC can be predicted by the JS. The Second, the dependent variable should be predicted by the mediator and the independent variable. The results in table 05 showed that JP can be predicted by JS and OC. The data suggested that there is an evidence for the first and second steps of Baron and Kenny's procedure. Last, the dependent variable should be regressed on the independent variable, controlling for the mediator. According to the results of table 06, the introduction of OC in the analysis reduces the impact of JS. The  $\beta$  has dropped from 0.13 ( $P < 0.01$ ) in step 01 to 0.04 in step 02. OC remains a significant predictor in the last analysis. ( $\beta = 0.39, P < 0.01$ ). Therefore, according to Baron and Kenny (1986), it can be assumed that there is a full mediation in this case. Thus, the final hypothesis can be accepted.

## CONCLUSION

Based on the results of the study, it can be concluded that there is a full mediating effect of OC of the non-managerial employees on the relationship between JS and JP of the non-managerial employees. In addition to that, the correlation between OC and JP is stronger than the correlations between JS and JP, JS and OC. Therefore, the strategists in the banking sector have to consider this scenario when they are formulating strategies regarding their human capital.

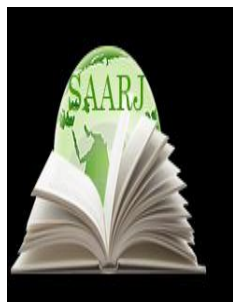
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## HISTORIOGRAPHY OF THE ARCHAEOLOGICAL STUDY OF THE EARLY MEDIEVAL SETTLEMENTS OF NAKHSHAB (SOUTHERN SOGD)

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### ABSTRACT

*In this article highlights of historiography of the archaeological study of the early medieval settlements of Nakhshab (southern Sogd). In 1954, S. K. Kabanov examined the Dagaytepa monument on the outskirts of Karshi, where he obtained materials related to the production of ceramic products. In connection with this research, it turned out that in Nakhshab during the early middle ages, a number of settlements had pottery production[3]. Another monument was investigated by K.S.Kabanova was Pirmatbabatepa. According to the researcher, building on Pirmatbabatepa had a square layout and was interpreted by them as the castle. More significantly, the excavations were carried out by S. K. Kabanov at the top of the two-tiered hill of Aitugdytepa[4]. Here the author notes the following feature of the building layout: the presence of a bypass corridor, identified on three sides, except for the West, residential premises located along the outside of the corridor, and in the center of the building - a large room, probably a common room. Building on Aitugdytepa stood on the stylobate with height of about 6 m.*

**KEY WORDS:** *Nakhshab, Sogd, history, historiography, archaeology.*

### INTRODUCTION

Settlements of settled farmers and townspeople, which have been the center of human life since ancient times, are the main source for a comprehensive study of the history of peoples, including the cultural history of Central Asia. In this direction, of course, and develop archaeological excavations on the ruins of ancient settlements.

For the late antique and medieval periods of Central Asia, a sharp quantitative increase in small settlements is characteristic. Therefore, this rapid period of growth of settlement systems has

always attracted the attention of scientists. Dozens of cities and settlements of this time were studied. The main mass of excavated and studied settlements in Central Asia belongs to this time.

One of the well-studied regions is southern Sogd – the modern Kashkadarya region of Uzbekistan. In 1946-1948, archaeologist S. K. Kabanov laid the first exploration pits and excavations on the territory of ancient Nakhshab. Since that time, the systematic archaeological study of the Karshi oasis has almost begun. Exploratory excavations by S.K.Kabanov was laid on Kadjartepe, Mudintepend Yerkurgan settlement[1].

In 1952-1953, S.K.Kabanov conducted excavations at the rural settlement of Shortepa near Karshi and obtained rich archaeological material. However, the architectural remains were partially uncovered, and this did not allow the researcher to study the internal structure of the settlement[2].

In 1954, S. K. Kabanov examined the Dagaytepa monument on the outskirts of Karshi, where he obtained materials related to the production of ceramic products. In connection with this research, it turned out that in Nakhshab during the early middle ages, a number of settlements had pottery production[3].

Another monument was investigated by K.S.Kabanova was Pirmatbabatepa. According to the researcher, building on Pirmatbabatepa had a square layout and was interpreted by them as the castle.

More significantly, the excavations were carried out by S. K. Kabanov at the top of the two-tiered hill of Aitugdytepa[4]. Here the author notes the following feature of the building layout: the presence of a bypass corridor, identified on three sides, except for the West, residential premises located along the outside of the corridor, and in the center of the building - a large room, probably a common room. Building on Aitugdytepa stood on the stylobate with height of about 6 m.

Small excavations were also carried out on other settlements of the Karshi oasis of this time, in particular, on Pishaktepa and Kichiktepa[5]. According to the results of excavations at Pishaktepa was uncovered the remains of monumental buildings and about ten rooms. According to the researcher, the monumental building was the owner's castle, and the opening of the premises had residential and economic purposes. According to excavations in the IV-V centuries, a building was built on a stylobate. After a short-term desolation, the next stage of habitation begins, the owner's castle is built, dating from the VI-VII centuries.

Excavations on Kultepa gave interesting results[6]. During the excavations, new architectural construction techniques were discovered, analogies of which can be traced in neighboring historical and cultural regions. Despite the large scale of excavation work, the uncovered part of the settlement of Kultepa does not give a complete picture of the layout of the settlement as a

whole, because the uncovered area is only less than a third of the citadel. The monument dates from the VI-VII and early VIII centuries.

According to S.K.Kabanov, settlement Kultepa, or rather a castle on top of Kultepe unearthed U.Alimov, could be built Turkic feudal Lord, because from the VI Central Asia is part of a major power - the Western Turkic Khaganate.

In 1971-1972, S. K. Kabanov excavated a significant part of the settlement of Koshtepa 2 near Karshi. The settlement is quadrangular in plan and is surrounded by a massive external wall. The rooms are arranged in two rows along the circumference wall, possibly around the Central courtyard[7].

On the border strip between the two regions of southern Sogd, Kesh and Nakhshab, in the area of the Chimkurgan reservoir, the Aultepa castle has been completely excavated. Work on Aultepa ended in complete opening is small, but the original layout of the castle. As S.K.Kabanov rightly notes, the material culture of Aultepa has a very close resemblance to the material culture of the Samarkand Sogd[8]. In his opinion, the building on Aultepa belonged to a Sogdian aristocrat who moved here from Samarkand. Here we can see the merging of two cultures - the Samarkand Sogd with the southern Sogd. Traces of the Nakhshab school are mainly traced in the forms of incense burners and in the decoration of individual vessels. The layout of Aultepa clearly reflects the characteristic features of medieval castle architecture of Sogd.

Until recently, no settlement of the early medieval period has been completely excavated on the territory of Nakhshab itself. This did not make it possible to study the internal structure of settlements and castles of the early medieval Nakhshab. In the late 80's and early 90's of the last century, A.A.Raimkulov first completely excavated the settlement of Kunjutlitepa on the territory of this region. Based on the excavated materials from Kunjutlitepa, the entire component part of the communal early medieval settlement of the region has been identified[9].

Kunjutlitepa is a small rural settlement of sub-square shape. It is surrounded by a massive bypass wall more than 2 m thick. In the center – a large Central courtyard measuring 18x14 m, around which, along the circumference of the wall, thirty-five rooms were located in two rows. Each of them necessarily belonged to one household. In the last period of settlement, seven farms were functioning here.

According to the planning Kunjutlitepa, this settlement was built by the advance-laid plan. The layout of the fourth and fifth farms shows that apparently all the premises of these farms were first designed by the architect-builder. Part of the settlement had a two-story building. In this two-story building, apparently, the family of the head of the settlement lived. The rest of the buildings were one-story buildings with flat roofs. Apparently, they were built by the residents of these farms themselves.

At this time, the settlement of potters on the territory of the ancient settlement of Yerkurgan (excavation-20) was completely excavated. There are three farms where three large patriarchal

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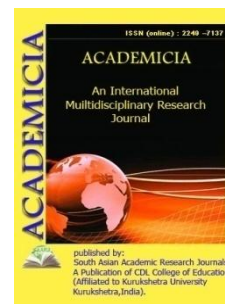
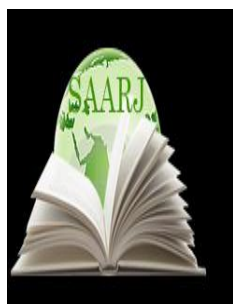
families of potters lived. Within each household, separate rooms are allocated for small families. The total number of families who lived in these farms probably exceeded the number of farms. The materials from dig 20 provided the author with the first opportunity to study the life and activities of rural craft communities that lived in the Northern part of a large two-part settlement. Artisans who lived in these places continued the traditions of their ancestors-potters specialized in the production of ceramic products.

In addition the work was carried out on the territory of the ancient settlement of Kalai Zakhoki Moron, located on the territory of Karshi. The uncovered part of the early medieval castle on the citadel of the settlement gave new data about the southern Sogd castle architecture of the pre-Arab period.

Thus, on the territory of southern Sogd, in the study of rural settlements, for more than half a century, excavation work continued, resulting in huge archaeological materials that allowed us to study the life and activities, religious and spiritual worldviews of rural populations in the southern regions of Sogd.

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## **SPECIFIC ASPECTS OF THE DEVELOPMENT OF CIVIL SOCIETY AT A NEW STAGE OF DEVELOPMENT OF UZBEKISTAN**

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### **ANNOTATION**

*This article explores the peculiarities of the development of civil society at a new stage of development of Uzbekistan, the harmonization of national and universal interests in civil society. Accordingly, in the first years of our republic's independence, the issue of protecting national interests, harmonizing them with universal interests and taking a worthy place in the world community was put in the center of state policy. Our country is studying the experience of international law, the historical "Uzbek model" of development based on creative use and the current "Strategy of action" is the basis of restoration of the system of protection and security of national interests, construction of a legal-democratic state, civil society.*

**KEYWORDS:** *Strategy of action, democratic reforms, independence, democracy, civil society, national interests, universal interests.*

The acquisition of national independence in our country has created an opportunity for the development of civil society reforms, based on international experience, in harmony with the principles of national and universal character.

In a short period of time, the legal foundations, theoretical methodological foundations of civil society were formed and reflected in our national legislation.

The first president of the Republic of Uzbekistan I.A.Karimov the following thoughts from the very first period of independence have acquired an important methodological significance: "For us, civil society is a social space. In this space, the law is a priority, it does not make a person self-sufficient, but on the contrary helps. Discrimination in the interests of the individual, his rights and freedoms is not allowed. That is, freedom and obedience to the law are valid at the same time. [1]. During the years of independence, the Republic of Uzbekistan has managed to

create national legislative bases for the harmonization of specific national and universal interests and to complement a number of international legal norms. The current legislation adopted to protect national interests is based on the norms of international law, democratic-humanist principles, which gave our country a wide opportunity to increase its status in the international arena and strengthen the foundations of civil society.

The harmonization of national and universal interests in civil society, on the one hand, is the object of historical development, on the other hand, arises from the needs of the sustainable development of any state and the construction of a just-democratic state and determines its prospects. On the second hand, the harmonization of national and universal interests in the process of global governance of international social, economic, political, environmental and other relations in the current period corresponds to the sustainable development trends and strategic goals of the universal civilization.

Accordingly, in the first years of our republic's independence, the issue of protecting national interests, harmonizing them with universal interests and taking a worthy place in the world community was put in the center of state policy. Our country is studying the experience of international law, the historical "Uzbek model" of development based on creative use and the current "Strategy of action" is the basis of restoration of the system of protection and security of national interests, construction of a legal-democratic state, civil society.

In the fifth priority direction in the strategy of action, the main attention was paid to strengthening the independence and sovereignty of our state aimed at ensuring security, national harmony and religious tolerance, maintaining a deeply thought-out, mutually beneficial and practical foreign policy, forming an atmosphere of security, stability and harmony on the sides of Uzbekistan, strengthening the international prestige of our country.

Set in the strategy of action, we can bring the following aspects of accelerating the processes of democratization of society in our country, proceeding from the most priority tasks:

- the creation of effective means of communication with the people, that is, the majority of views are taken into account in determining the future plan of the development of our country;
- effective solution of important issues such as fight against corruption and organized crime, prevention of offenses, fair trial, which are hindering the development of our country;
- measures are being taken to strengthen the guarantees of implementation of the right of private property of citizens;
- improvement of the system of "electronic government" in the implementation of monitoring of the activities of state bodies of power, as well as the ability of citizens to apply to the authorities, ensuring transparency in their activities, increasing the effectiveness of the activities of public authorities;

- measures are being taken to radically reform the national system of providing public services to the population;
- implementation of an effective decision-making system based on openness and transparency in public administration;
- the fact that all spheres of life of the state and society are being transferred to the path of innovative development aimed at radical renewal.

At the new stage of development of Uzbekistan, it is aimed at ensuring the harmony of the principles of national and universal character in the development of civil society, protecting the rights of citizens arising from the national interests of the country. The democratic-humanistic essence of the national model of protection of national interests in Uzbekistan, the solution of everyday life problems of people, their mental perception, knowledge, practice clearly concretizes the motivations of interests aimed at goals, tasks. After all, the dialectical link between the models of social development and the phenomenon of interest – which is decided in society: it is reflected in democratic-humanistic values, such as justice, equality, freedom, and is based on legal-legal norms, moral-moral norms that regulate interests.

The formation of the legal and socioeconomic basis for the protection of national interests and the harmonization of universal interests are adequate, that is, adequate to the moral and moral norms and social criteria and requirements of people aimed at solving life problems. In the harmonization of national and universal interests of institutions of state and civil society: the basis of identification, the results of functional integration, does not exclude conflicts in national relations, but manifests itself in a specific way.

After the adoption of this "Strategy of action", the responsibility of the state for the solution of problems arising in the process of protecting the interests of each individual and legal entity was increased. That is, as the President of Uzbekistan Shavkat Mirziyoyev noted in his speech at the joint meeting of the chambers of the Oliy Majlis dedicated to the solemn ceremony of entering the post of President of the Republic of Uzbekistan: "the people should serve our people, not state bodies, but state bodies".[2] However, the effective functioning of laws on the harmonization of national and international universal interests in the country, the legal consciousness and culture of citizens depends on the level of development and today the solution of this issue is an urgent organizational task.

The leadership of the Republic of Uzbekistan considers that the key factor of maintaining global civilization at the present time is the integration of interests that ensure stability on the scale of the planet and is based on this principle in its domestic and foreign policy. As the first president of the Republic of Uzbekistan Islam Karimov noted, "the 21st century will undoubtedly be the century when the world is covered in international relations. Under these circumstances, it is necessary to consider the process of integration not only as a historical precondition, but also as a powerful factor of stability, both on the scale of some regions and on the scale of the entire planet" [3], the opinion of which is directly related to the harmonization of interests.

In general, the adoption of the decree of the president of the Republic of Uzbekistan "On the strategy of actions for the further development of the Republic of Uzbekistan" for 2017-2021 years has launched a new stage in the development of civil society in Uzbekistan and

harmonization of national and universal interests as specific aspects of the development of civil society:

First, the necessary social, economic, political optimal environment, the creation of a democratic and legal space for the person's activities to harmonize national and universal interests;

Secondly, the formation of a physical and harmonious generation with comprehensive support of civil institutions, which are responsible for the harmonization of national and universal interests of society;

Third, to further enhance the role of the chief reformist in the stabilization of social, socio-economic development of the state and the harmonization of national and universal interests;

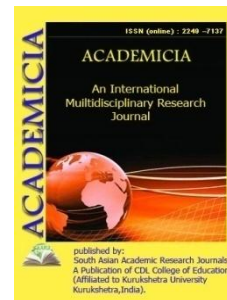
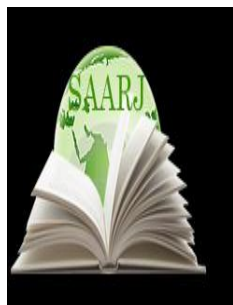
Fourth, the use of opportunities to harmonize national and universal interests in Uzbekistan's policy of integration into the regional and global security system and ensuring international cooperation;

Fifth, the use of state organizations, civil society institutions and public diplomacy experiences that is responsible for the harmonization of national and universal interests;

Sixth, creative generalization of the achievements of the countries of the world in the issue of increasing the place of tolerance in the harmonization of national and universal interests is like the application to practice.

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## FORMATION OF INHERITANCE CHARTER IN ISLAM

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### ABSTRACT

*In the article, the author talks about the perfect formation of Islamic heritage legislation, the stages that have gone before it, and about the teachings that have come in the Quran and hadiths in this regard. He tried to show the positive aspects of the Islamic heritage charter by revealing the attitude to the heritage and the injustices in it during the so-called jahiliya, when the religion of Islam began to take shape. To do this, he tried to thoroughly study the history of Islam in different languages and from sources related to the right to Islam.*

**KEYWORDS:** *Inheritance, genealogy, hilf, emigration, emigrant, ansari, reason of inheritance, tabanniy, heir, Shari'ah children, movala.*

### INTRODUCTION

The life of the Arabs in the time of jahiliya was on the basis of nomadism, and internal and external conflicts occurred a lot. They also had their influence on the inheritance charter of this way of life. According to the existing charter in them, only men who could stand on horseback and fight, take prey and defend glory were left with an inheritance. A weak group of women and young children were always deprived of inheritance [11; 132].

The reasons for the inheritance by the Arabs during the time of jahiliya were identified in 3 ways [17; 229]:

1. **Genealogy, that is, kinship;**
2. **Adoption of children (tabanniy);**
3. **Hilf (covenant);**

1. The genealogy. According to them, since it was not so important for a child to have a marriage or adultery, inheritance did not affect his affairs [13;274]. This situation continued until the emergence of Islam and some radical changes occurred. We can understand this through the following hadith.

According to the Hadith of Jabir bin Abdullah: the woman of Sad bin Robe was born of Sad with two daughters of the Prophet (s. a.v.) and came to him and said: O Rasululloh! These two girls are the daughters of Sad bin Robe. Their father died in Uhud. Their uncle took away their goods and left nothing. It is possible to marry them if there are any goods," he said. The Rasululloh (s.a.v.): "God will judge in this regard," he said. Then the verse of inheritance was revealed. The Rasululloh(s.a.v.) sent a man to their uncle and said," give two-thirds of the inheritance to the two daughters of Sad and eight-one parts to their mother, and the rest to you" [14;20].

In contrast to jahiliya, he noted that the Islamic heritage would be according to an honest lineage, and that the children's big-size, male-female, strong-female and even pregnant were also included in the general census and some other relatives were also associated with them. Also shariah was identified as one of the reasons for the main inheritance of the couple. With this, a restriction was introduced, which was strict in relation to adultery and the lineage that arose through it [17;231].

2. Tabanniy (adoption of children). Any Arab person could have a child who was not of his own lineage, and he would have remained as a child of his own lineage. Secularism and the order of its inheritance continued for some time even at the beginning of Islam. The inheritance with tabanniy lasted until the seventh year of the hijrat. In the same year, this sentence was abolished. The verse in this regard was revealed[19; 17].

"Allah has not created two hearts within one person. You have not made your wives who will "zihor" to you mothers, and your adopted children have not made your own children. This is your word of mouth. And Allah will tell the truth, and he will start the (right) path. Call them (adopted children) with their own father (name). There is no sin on you because of the mistakes you made...[1;33]. Until this verse falls, the Prophet (s.a.v.) according to the custom of jahiliya, Zaid ibn Horisa, who had adopted children before the advent of the Prophet, was called "Zaid ibn Muhammad". As it became known, later a verse was revealed that abolished this judgment [20;311].

Then the question of the adoptive child and his inheritance ended with the fact that God put a strict judgment on it[1; 33]. None of the shariah judgments, in which the individual finds order in relation to his or her child from his or her own feathers, became impractical in relation to asrandi[15;345].

3. Hilf (contracting). This consisted in the fact that when one person committed a crime with another person who had no kinship with him, the second agreed to pay his aunt and receive her inheritance if the deceased reaches a term. This appearance of inheritance continued for some

time at the beginning of Islam. This can be cited as an example of the 33-th verse of Surah Niso [3; 500]. Later this work was abolished by another verse [3; 500].

Imam Malik, Shafeiy and Ahmad bin Hanbals from Jumhur fuqah have confirmed this incident. Abu Hanifa (r.the a.) who remained in power to inherit because of the covenant, now also called fixed. But according to Abu Hanifa, the man who has made a covenant in this view will stand after the relatives. If there is an heir through one of the reasons for kinship, it will not be possible to inherit because of the covenant[21;13].

On the eve of the advent of the religion of Islam and the most important reasons for the inheritance in the society of the ignorant, the Arab scholar Nasir ibn Muhammad ibn Moshri al-Ghamidi cites in his work "Al-xulosa fiy ilm al-Faroiz" as follows: "one of them is to inherit because of tabaniy[19;15].

In conclusion, the Arabs inherited through seclusion, slave liberation and covenant. Women and relatives were deprived of inheritance. In them, when a person died and there were children and women left from him, when his children were underage, the brothers of the deceased person took his property there and did not give anything to the women and children. If would buy them as slaves.

Such a method of inheritance continued until the beginning of Islam. It should be remembered that the verses of inheritance were not revealed during the time of Mecca. The Prophet (s.the a.v) when the verse came to Medina was revealed, muslims were also ordered to inherit among themselves because of an additional emigration to those above at a time when the islamic shariah did not end perfectly[19;15]. When immigrants left their homes and came to emigrate to Medina from Mecca, they had nothing to do with it. For this reason, God commanded them to unite with one another[3;33].

This friendship was introduced between the two fraternal communities of the messenger of Allah; the emigrant(Mecca muslims) and the ansar (Medina Muslims). The emigrant ansar would inherit from someone or vice versa, ansar would inherit from someone of the emigrant.

### **IMAM BUHARI NARRATED THIS HADITH IN THIS REGARD**

"Even if the immigrants did not give birth to the immigrant ansari at the time of his arrival in Medina, he would have inherited because of the union. The Rasululloh (s.a.v.) they made a brother in the middle"[9; 2292]. Also, in terms of lineage, inheritance was inherited during the time of jahiliyaand there was neither equality nor justice, as it was said above.

In a hadith narrated from Buhari, Ibn Abbas says: "the goods would be the children, and the testament would be the parents"[9;2592]. This method of inheritance is nothing more than oppression and violence. Because why small and weak children or a wife are deprived of the inheritance of her father and are able to earn, a strong eldest child will have all the inheritance? Here is the evidence of this sin that the self-arabs were ignorant and astray. God brought this out

of vanity and introduced a just division of inheritance, restored the right of inheritance for all. When Islam came, muslims increased their power, spread shariah laws, abolished all illiteracy habits and ordered to conclude a new fair agreement, and on the contrary banned such agreements. From Rasululloh (s.a.v.) of Ibn Abbas so narrates:

"Islam dictated it when there was an oath or covenant which was concluded during the time of ignorance and lasted until Islam. However, in Islam, the oath also disappeared from the covenant [18;111]". Then began the formation of judgments, the next verse was revealed. First of all, Allah has explained in this verse that if there are covenants, they will fulfill their covenant:

"We have made heirs for everyone to what parents and relatives have left. Give a share to those who are bound by your oath. Of course Allah is witness to everything"[3;501]. That is, the relatives of each person will inherit it. Just as he inherited from his parents and relatives, he will inherit from him both children and relatives. So the product passes from generation to generation. "Give a share to those who are bound by your oath" in the sentence" quot, refers to hereditary, non-relative persons. There were such individuals at the initial stage of islam. Such a link is called "muwolat" in Arabic. This can be translated as "friendship", slightly approaching the original meaning. One of these rights is the freedom of expression. That is, a person who freed a slave can become a covenant and inherit it. But there are two conditions for this:

1. A freed slave should not have his own heir.
2. If this freed slave person commits a crime during the period of his life, the diet must be paid to his neck.

When we look at the above judgments, we see that the judgments of inheritance are formed in stages. Initially, the inheritance was inherited for the reason of emigration, and then with the observance of the promises made, the inheritance work was carried out.

Later, these judgments continued until a certain time. And it was known that these judgments were not fair among people. Allah began to reveal the continuation of the verses inherited by his grace.

As mentioned in the previous "Anfol" surah verse, this verse was on the basis of the fellowship that was maintained, until the inheritance was revealed. This was from the rules that were introduced initially after the hijra. It is known that in order to preserve the religions of Mecca immigrants, they left their wealth, Homeland, relatives and migrated to Medina. Also, the ansari, who were the indigenous inhabitants of Medina, were separated from the infidel relative seeds due to their muslim origin. As a result, there was a slight change in human relations. At this time, the Prophet (s.a.v) used a popular pairing event among migrants and ansors. According to this, the emigrant would have inherited himself to someone ansar and would have inherited him. Over time, a muslim personality and a muslim society were formed. As a result of this, it was noticed that there is a need for the fact that relatives are more right than others in the issue of inheritance from each other [3;27]. Ibn Kasir in his interpretation cites the following information related to

this verse: "Ibn Abbas and others say: "the emigrant would have inherited ansar. Both relatives from the father's side and relatives from the mother's side could not inherit. The Prophet (s.the a.c) it would be done so that he made them a brother"[22;289]. After that, the following sentence was introduced. The covenant, emigration and inheritance through the release of slaves were abolished by this verse [19;17].

"In the book of Allah, relatives deserve each other's inheritance from other believers and emigrants. Except that you can only do good to friends. This book is finished with the lines" (Akhzab / 6) [3;548].

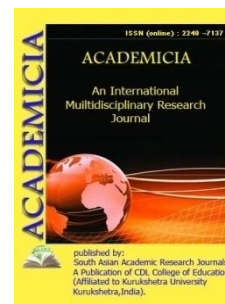
According to this verse muslims became inheritable due to tabanniy, muvolut, emigration. After that, they became heirs from relatives.

In conclusion, Allah revealed his judgments one by one to his Prophet. First of all, as already mentioned above, the first inherited because of emigration. If all the judgments were revealed at once, it would have been honored by many. Therefore, Allah revealed the verses in stages. And people got used to it one by one. After that, the second verse was revealed. In addition, there was a habit of inheriting the covenant in the time of ignorance. This was also pointed out in the chapter above. This verse was revealed in the sense that those who made the covenant before them should keep the covenant, and those who did not make the covenant should not. For this reason, no further covenants were made, and the covenants were first fulfilled.

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## IMPLEMENTATION OF INNOVATIONS IN THE SYSTEM OF HIGHER EDUCATION IN UZBEKISTAN

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### ABSTRACT

*The article analyzes approaches to defining the concept of "innovation" in Uzbekistan science. It is shown that the Uzbek economic science has not developed a unified approach to the concept. Authors have a pragmatic and utilitarian approach to defining the concept of "innovation". The characteristics of innovation processes are presented. The article analyzes innovations in the educational process of the higher education. The features of the innovative model of higher education are highlighted. Attention is drawn to the directions of activities of universities in the innovation process. It is shown that innovations in education are a necessity of time.*

**KEYWORDS:** *Innovation, innovative activity, scientific activity, education, higher education system, teacher - student.*

### INTRODUCTION

In fact, innovation appears in Latin somewhere in the middle of the XVII century and means entering a new sphere, implanting it and generating a number of changes in this sphere. This means that innovation is, on the one hand, a process of renewal, implementation, and implementation, and on the other - it is an activity to develop innovation into a specific social practice, and not a subject at all. As the current economic situation shows, the country faces the task of innovative development. This implies an innovative approach in education, and mainly in higher education, which should translate the training of specialists to a higher level.

The main indicator of innovation is a progressive beginning in the development of the higher education in comparison with the established traditions and mass practice. Therefore, innovation in the education system are associated with changes in objectives, content, methods and technologies, forms of organization and management system; in the styles of teaching and organizing educational process; the system of monitoring and evaluation of the level of

education; training and methodological support; the curriculum and programs; a funding system. The sources of ideas for updating the higher education can be the needs of the country, region, city, district - as a social order; achievements of the complex of human Sciences; advanced pedagogical experience; intuition and creativity of managers and teachers; experimental work; foreign experience.

The main tasks of modernizing vocational education are presented in the state program:

1. Taking into account the specifics of regional policy in vocational education;
2. Flexibility and effectiveness of vocational education programs;
3. Transparency of financing and competitiveness of professional education;
4. Compliance of technologies used in professional education with the needs of modern economy and students;
5. Formation of students' competencies that are in demand by employers.

For higher education, innovation is a relatively new phenomenon; for foreign universities, it has long been a reality.

## **MATERIALS AND METHODS**

There are quite a few definitions of the concept of "innovation" and unified approach to it has not yet been developed by science. According to the analysis of the economic literature, the concept of "innovative activity of the University" has not been developed.

Studying the interpretation of the concept of "innovation" by Western authors, S. V. Kostyukevich revealed that their approach to defining this concept is pragmatic and utilitarian: to produce new products or services, it is necessary to be able to benefit from knowledge and skills [2]. The following chain is being built: knowledge-innovation – economic growth.

Innovations are characterized by the following processes:

- 1) Investment in the system;
- 2) Development of an innovative product;
- 3) Introduction of this product;
- 4) Getting a qualitative improvement in the system's performance.

For the higher education, innovative products are graduates with the required competencies and scientific and practical developments.

An innovative approach to education means advanced training of highly qualified personnel for the scientific and technical sphere and high-tech industries that can implement their ideas. According to experts, the introduction of an innovative approach to the higher education system is an urgent need. This is also evidenced by the following facts:

- Rapid obsolescence of knowledge;
- Intensive informatization of society;
- Regular updating of the content of taught subjects;
- Active implementation of research results in the educational process;
- Reduction of state funding.

What do specialists consider innovations in the educational process of higher education? Thus, A.I.Vladimirov refers to innovations as the introduction of new content of training (methods, techniques, technologies, forms). This new approach allows us to significantly change the nature of cognitive activity and thinking style of students, contributes to the formation of their innovative competencies. According to the author, innovative activity in higher education contributes to improving the quality of education and the quality of the individual. As a result of this activity, new intellectual or knowledge-intensive educational technologies and educational equipment are being created. New sources of higher education funding are being created; improving work motivation; increasing the professionalism of the teaching staff; created innovative infrastructure [3].

O.A.Latuha and Y.V.Pushkarev in his work "Innovative activity of modern high school: tendencies of development" argue that the innovative activity of the University is the result of the integration of science and education in the universities [4].

Innovation activities in higher education institutions in Uzbekistan are developing in three directions.

The first direction: research activities. It is aimed at obtaining new knowledge.

The second direction: project activity. The task of project activity is to develop instrumental and technological knowledge.

The third direction is educational activity, the main goal of which is the professional development of subjects of a certain practice.

Innovations in higher education can also be general methodological, intra-subject, ideological, administrative, economic, managerial, etc.

O.V.Kulikova and I.A.Guley in their work "Features of the innovative model of higher education" note that there is a need to transform the scientific and educational sphere of higher education institutions. The changes should be aimed at creating and further developing research and educational centers and innovative programs. This will speed up the integration of scientific research and educational programs, and will contribute to solving research problems and personnel issues [5].

The study of higher education activities by specialists has shown that the innovation process is represented by many directions:

- Professional development of specialists in demand on the labor market;
- conduct of certification of scientific and scientific-pedagogical personnel of higher qualification;
- conducting basic and applied scientific research;
- training of research activities of students, undergraduates, applicants, doctoral students, researchers, teachers;
- Dissemination of knowledge about innovations among students and listeners.

### ANALYSIS AND RESULTS

The analysis of the innovative model of higher education to identify the following features:

- In the course of training and subsequent practical training, students master the basic competencies of research and innovation;
- Teachers have the opportunity to combine their educational activities with research and innovation;
- Universities cooperate with the relevant sector of the economy;
- Innovative enterprises are being created.

All this contributes to the formation of an innovative environment around higher education. Already today, the country has integrated structures where educational and scientific and innovative activities are combined. They are assigned the role of a flagship in innovation. These structures are characterized by the following features:

- They carry out both educational and scientific activities with equal efficiency;
- Technologies are being actively introduced into the economy;
- Fundamental and applied research has a fairly wide range;
- High level of training of masters and highly qualified specialists;
- A built-up system of retraining and advanced training programs.

The main task of creating such structures is to advance the development of science, introduce innovations, and train highly qualified specialists for high-tech sectors of the economy.

Active use of information and communication technologies (ICT) in the educational process is one of the key conditions of innovative activity. It is not for nothing that this problem is given the closest attention at the state level. But there are factors that prevent innovation.

1. Lack of adequate funding.

2. Insufficient competence (lack of information, in particular) of representatives of higher education authorities of the district.
3. In contrast to large cities, parents do not have the opportunity to purchase the necessary educational literature and "getting" all the necessary textbooks and workbooks falls on the shoulders of already busy teachers.
4. As strange as it sounds, there is no social order on the part of parents as such: teach what you want.
5. The lack of preparedness for innovative activity of pedagogical staff.
6. Weak and practically absent technical information base.
7. Personal factors: free time for reading; strong-willed; perhaps the temperament, character traits of the teacher, etc.
8. Economic: the lack of real market relations in education, therefore, does not stimulate the teacher's personality to develop.
9. Material: lack of funds due to individual reasons.

In the field of educational policy: this is responsible state and public support for research projects and programs related to the design of innovative developing and developing education.

#### **CLASSIFICATION OF INNOVATIVE TECHNOLOGY IN EDUCATION**

1. In relation to the structural elements of educational systems - in monitoring and evaluating results.
2. In relation to the personal development of subjects of education - in the development of certain abilities of students and teachers - in the development of their knowledge, skills, ways of working, and competencies.
3. In the field of pedagogical application - in the educational process.
4. By types of interaction of participants in the pedagogical process - in collective learning (person-oriented) and in individual, frontal, group form, in family training.
5. Functionality - innovations-products (educational tools, projects, technologies, etc.)
6. By methods of implementation- systematic.
7. On the scale of the distribution - at the international level and at school.
8. Selection of a sign of the scale (volume) of the innovation -system-wide, covering the entire school or University as an educational system.
9. Socio-pedagogical significance - in educational institutions of any type.
10. On the basis of innovative potential – combinatorial and innovations.
11. Compared to its predecessor – substituting and opening.

## CONCLUSION

The innovative model of higher education development implies the implementation of a systematic approach to the development and use of innovative products with their extension to all types of educational activities. It should be guided primarily by such principles as the priority of education, secular education, democratic character of education management and continuity of levels and continuity of education, active participation of the state as the main guarantor of the constitutional rights of citizens to education in the development of education, priority of universal values, human rights, humanistic character education, involving the freedom of choice of pedagogical workers methods of training and education, educational technologies, learning tools, and students - educational institutions, directions, training profile (specialty), forms of education. All this should eventually bring our educational system to the world level.

But without regional actors, the modernization of higher education cannot take place. Therefore, they should also actively participate in the process of innovative development of education.

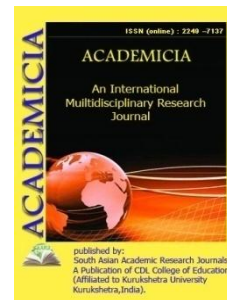
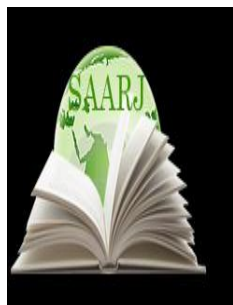
Thus, we can say that the introduction of innovations in universities will lead to a new model of higher education, its restructuring. And the innovation models should be different for different higher education.

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## AN IMPORTANT FACTOR IN THE DEVELOPMENT OF A DEMOCRATIC SOCIETY IN UZBEKISTAN - SOCIO-SPIRITUAL VALUES

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### ABSTRACT

*The article deals with the democratic nature of the democratic society, the specific national character of the democratic society of Uzbekistan, factors that influence the change and change of socio-ethical values in the Democratic society of Uzbekistan, and the various forms of democratic societies in the world. In the process of building a democratic society in Uzbekistan, issues related to the strengthening and development of the spiritual spirit of the people were first put forward in the booklet of the first president of the Republic Islam Karimov entitled "Uzbekistan's own path of independence and development". This booklet shows the moral and moral foundations of the development of Uzbekistan. As recognized in the book, The emphasis on issues related to spiritual ascension has increased to the level of Public Policy. In this regard, it is important to deeply study, strengthen and develop the spiritual heritage of our people. Its own way of updating and developing Uzbekistan is based on four main bases.*

**KEYWORDS:** *Society, democratic society, values, socio-spiritual values, national spirituality, oriental or western democracy, supremacy of law, universal democratic values.*

### INTRODUCTION

Any state develops on the basis of the historical, cultural, and moral heritage of its society. Such harmony raises the development of the people to a new level. Democratic society is defined by the fact that each nation follows its own individual characteristics, social conditions. "We need to develop a national idea that will be a source of strength for us in carrying out the enormous tasks we have set before us." [1,270] The formation and development of a democratic society in

Uzbekistan is radically different from other societies. In a democratic society, the culture, spirituality, social consciousness, mentality, perception, level of knowledge, ability to work, his ability to live and work freely in society are highly formed and developed. "Living in a free and prosperous land, thinking newly, thinking people, their lives, their lives must be beautiful and prosperous." [2,191] The deep socio-economic and political reforms carried out in Uzbekistan require raising the spirituality of young people and educating a harmonious generation in the spirit of high moral and moral values.

An important feature of the democratic society in Uzbekistan is that it recognizes the people's authority, that is, the official declaration of the rule of subordination of the minority to the majority, as well as the land and equal rights of the fukaro. These conditions are reflected in the Constitution of this state - the main subject of life of society and its members. But, the principles of democracy in remain, in most cases, the slogan of clinging to oral and propaganda. It is necessary to admit that separately, democracy is a factor that ensures the harmony of the individual and society.

In the process of building a democratic society in Uzbekistan, issues related to the strengthening and development of the spiritual spirit of the people were first put forward in the booklet of the first president of the Republic Islam Karimov entitled "Uzbekistan's own path of independence and development". This booklet shows the moral and moral foundations of the development of Uzbekistan. As recognized in the book, The emphasis on issues related to spiritual ascension has increased to the level of Public Policy. In this regard, it is important to deeply study, strengthen and develop the spiritual heritage of our people. Its own way of updating and developing Uzbekistan is based on four main bases. These bases:

1. Loyalty to universal values;
2. Strengthening and development of spiritual heritage of our people;
3. The free manifestation of a person's abilities;
4. Patriotism. [3,25]

In the process of carrying out the task of establishing a free, democratic society in Uzbekistan, we deeply understand that the idea of democracy embodies the harmony of universal and national-spiritual values. It is known that in the ancient Greek language the lexical meaning of the term "democracy" meant "people's power". When approaching from the same point of view, the main sign of democracy is the practical recognition that the people in this or that country received in the alokhi are the source of supreme power. At present, different peoples have different interpretations of the form and content of democracy at different times.

For example, "with the ancient interpretation of democracy, the interpretation of the present in Europe is not exactly the same. Should we deny the different understanding and interpretation of it in the conditions that today there are both different peoples and different cultures? For

example, a look at the political map of Western Europe and East America itself indicates that the answer to this question is positive. To some extent, important democratic printouts national universal Humanities have found their vital expression in various political regimes, in accordance with which the national-cultural, historical and other traditions of the peoples of this country and the region. Why is it that when thinking about the people's power in another country and the region, as well as about Uzbekistan, it is impossible to say in the circle of existence of specific meanings, criteria, characteristics?"[4,118].

Today, it can be noted, that the democratic idea was able to prove that it was able to live in different national-cultural conditions. This means that if, on the one hand, it shows the existence of the national features of democracy, and on the other, it is a manifestation of it in the life of different peoples, nations, in the traditions of the construction of statehood. It does not rely on its national-spiritual values, taking into account it, but at the same time, a democracy that does not coincide with universal values, prints, cannot be called a real democracy. There is still some controversy about this. We think that analyzing it and expressing attitude will help to understand the truth.

Therefore, it is not profitable to react to some feedback that causes controversy. First of all, the use of the term "Eastern democracy" or "Western democracy" in a separate way does not cast a shadow on the universal meaning and meaning of democracy, its general essence as a universally respected value. In other words, "democracy" (both in the East and in the West) is a universally recognized concept. The problem lies in our view in the concept of understanding the difference between "Eastern" or "Western" democracy, that is, the problem is not in the general, single essence of democracy, but in the differentiation, recognition of its specific national-spiritual characteristics. Of course, it is impossible not to take into account the fact that "sharkana" "thought about democracy and tried to dress it above the" Western "democracy, to put the Western democracy above the shark, to humiliate it, or" when talking about Eastern democracy (if this is the case), to take into account the positive aspects of its fakat, some defect, harm, incompatible with the [5,120] therefore, giving him a kandai meaning is associated with an objective approach to his essence and attitude.

In the national consciousness of a foreign nation, there are some basic aspects that are characteristic and compatible with this people, historically formed, it expresses the spirit, mentality, character of this people, and they can not remove their traces in the political system of the country.

Of course, in the development of the world, democracy as a universal cadre is a different style of leadership, which is integrated into the thinking and lifestyle of Nations, recognized, and accordingly paid attention. This is the general law. At the moment, it is also impossible not to take into account the second important characteristic of this general law. This is due to the way of life of each people, the mentality, the presence of a sense of democracy, the ability to understand, understand and follow the middle. For all peoples, there is not even a single style of

political administration, but a single society. It is impossible to prefer one from the other. Recognizing that democracy, which has become a universal value, is important and important for all, it is impossible not to recognize that it is based on the National-Spiritual spirit of each people and does not correspond to the development of society, the logic of democratic development, not recognizing that it is becoming a universal value. "No matter how universal democracy is, its basis is the "national", "national-spiritual", national-spiritual values that give it a spiritual power, enrich it, ensure its diversity. Democracy will remain in conflict with its essence if it does not take the national, the national authorization into account, and does not rely on it." [6,119] Ensuring the priority of moral values in social relations should not have a reflection on overall development. "For example, neighborhood-loving, fraternal people are absorbed in the blood of our people. But sometimes the abuse of these values under the banner of kindness is also done- common interests are escalated to do good to those close to oblivion". [7,242]

If the rule of law is not complied with, or the connection with the violation of human rights and freedoms can not be fully integrated with the assessment of some unhealthy situations as "national happens". It should be noted that it is not a national phenomenon associated with the activities of some people, officials, social groups. Without integrity in this matter, one can not blame this or that nation. There may be manifestations of indifference inherent in some nationalities, getting used to it, cases of inner vision. It will also have its own chukur historical roots. As democracy, freedom, transparency guarantee to prevent it, it gradually ceases to exist.

The diversity of political institutions in Uzbekistan, the diversity of ideologies are assessed as a practical expression of the functioning of political life of democracy. This is a universally recognized value both for the West and for the East. But he achieved it more if was in harmony with the way of life of the people in the country, the mentality, political behavior. Where on the contrary, there are some problems. The fact that some of the values associated with the universal democracy, established in Uzbekistan on the basis of the rule of law, have not yet been fully absorbed into our way of life, our thinking, practical life, causes some problems in social life to be preserved.

The deep absorption and displacement of democratic values in the life of society also depends on the political and cultural consciousness of the people, their political democracy and the basic requirements of today's market, the level of willingness to accept and implement their printouts. In other words, it is also necessary for a nation to be ready for it, that is, forms of political self-organization. This is a long, continuous process, which requires a certain historical experience. If the Western view of democracy seems to someone "preferred", it means, or one-sided view of Western democracy means that you do not recognize its national-spiritual features by giving him an overestimated assessment.

Or Eastern suggests that there is a need to change some aspects of democracy that have been left behind from time to time, some unhealthy stereotypes that have taken a deep place in our mentality. Eastern democracy also relies on universal democratic printouts. By the way, it means

taking into account its regional, general national-spiritual characteristics. It is also a colorful and relative phenomenon in itself. These are the distinctive national features of the historically decided values of Shark peoples. They are manifested in the way of thinking of peoples, in the traditions and customs of political life, in the manifestations of specific political and cultural behavior, which they practice when looking at a person, society and state. This is the priority of the spirit of living as a community in the life of our people from ancient times, taking a deep place in the hearts of the people of the concepts of family, neighborhood, country, with high respect and attention to parents, neighborhood, church, respect for adults, small people, mothers and in general, showing special respect to the female breed, patience and such values naturally interact with the universal principles of democracy, inextricably linked. But one thing can be observed in life, in some cases relying on national-spiritual values is that the cases of democracy being superior to the Universal printouts are three in the activities of some people. For example, the priority of the cone is the universal cadre in democracy. National interests are also expressed in it. But if, for example, respect for an adult, or hide some negative actions that come across as my neighborhood, turn a blind eye to illegal actions that come to the life of society, even worse consequences for each of us, we ourselves can also become a motivator for him. In such a situation, telling and telling the truth is not a situation that contradicts sharqana democracy. For this, too, it is necessary to become the norm of behavior, value in the way of life and activity of many people. Eastern also differs from democracy in that it has a "moral" and "enlightenment" relationship as well as a bridge to traditions. This should never overshadow the universal values of democracy.

Come similar traits in Western democracy, it is possible to establish emotional interpretation in relation to Western lifestyle and skills. The same at the moment it is not more "traditions", taking into account it, we see that it is deeply embedded in the political culture of a citizen, based on the law, on the freedom of a person, on the basis of law-based "individualism" when approaching from the Eastern point of view. From this, Western democracy does not necessarily recognize the community, national-spiritual characteristics, it does not come to the conclusion that it is alien both from the public and from the human mekr-okibat relations. The peculiarity of the East is more manifested in the perception of democracy with individuality as a collective, in harmony with it (family, group, community, neighborhood, State). It contains the opinion of the individual (individual) in the collective opinion of the husband and his interests, the opinion of the community in the interaction with his interests, the priority of his interests in some cases. It can not be denied. This does not give a social meaning that the benefit of an individual, an individual, is contrary to the community. This can be said to the extent that society and individual relations rely on the philosophy of connecting with it that individual life activities are not outside of society. The husband of the individual is different in that the judgments are viewed more closely in relation to the public interest.

Some of the law-based behavior of the individual, which is found to be correct in the West, can not be considered correct, even if the public does not easily accept cases of behavior according to

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the Eastern tradition and does not contradict the law. If the Western bridge evaluates this on the basis of the law, then the East sees and evaluates it in accordance with the law, taking into account the public, values, traditions encourage or punish either. Therefore, in the East, the law is in balance between doi-mo with the manifestations of social morality. When assessing the behavior of a person, along with universally recognized legal norms, traditional norms, moral manifestations also prevail. But this does not contradict the legal framework. The rule of law in this respect is also more integrated into our way of life. Traditional cases, when we look at our goals only from the point of view of moral norms, in some cases, when public opinion, community prestige, honor, or reputation as a result of the "deviating" of the law and the illegal approach to it, are the cases of priority origin from the legal basis, in some cases in our life three.

It is not easy to answer the question of whether this is good or bad. If we answer well, then realizing that it is in his own interest and does not correspond to the state of reality, can underestimate his "freedom" as humiliated. If it is called bad, then we will not be disrespectful to some of our own characteristics, traditions, community, historically formed values. More precisely, it is clear that someone will look and evaluate like this,

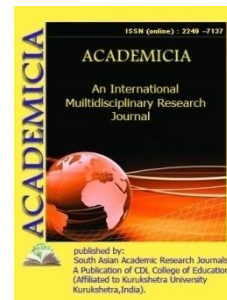
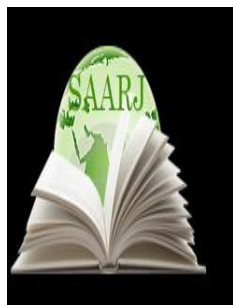
And human rights require accuracy, priority in the interests of man, its compliance with the law. So how to get in the way? Relying on the law and solving the problem on the basis of the law is a universal democratic value. In the Republic of Uzbekistan, democracy is based on universal human rights, according to which human beings, his life, land, honor, personnel and other untouchable provisions are of high value," [8,8] is called (Article 13). Justification and relying business vision are common, common points of view for Eastern and Western democracy.

In place of the conclusion, it should be said that the Eastern and Western manifestations of democracy are of a universal nature that recognizes and relies on both national and spiritual characteristics. It guarantees the construction of a democratic society and serves as an important factor in the social spiritual transformation. Any manifestation of democracy can not be absolute. The recognition of the national character of democracy as well as the Universal printouts is due to the processes of the formation of society, the state and society, its liberalization. Therefore, democracy in our country is considered national and universal. And this is a fact that does not coincide with the diversity of democratic progress, the diversity of development models; It is also not surprising that the president of the Republic of Uzbekistan Shavkat Mirziyoyev, having noted that a democratic society cannot be built alone, calls his first book "we will restore the state of Uzbekistan together as a free and prosperous democracy" [9,120].

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## **SPECIFIC FEATURES OF TEACHING MATHEMATICS IN PRIMARY SCHOOL STUDENTS**

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### **ABSTRACT**

*In order for effective teaching of mathematics to primary school students, the teacher must master and deeply master the methodology of teaching mathematics in primary classes. In this article highlights specific features of teaching mathematics in primary school students.*

**KEYWORDS:** *Methodology, mathematic, primary school, education.*

### **INTRODUCTION**

Since the first days of independence in our republic, the policy of reforming the educational sphere as a necessary and mandatory condition for democratic changes in society, sustainable development of the economy, integration of the Republic into the world community has been implemented consistently. Today, the national program of training of Personnel is the only system of education that can provide continuous education to the younger generation and holistically cover the process of its upbringing. Each unit of the educational system has a special place.

In accordance with the requirements of the "National program of Personnel Training", the state nationwide program for the development of school education, the task of "formation of the educational process, determination of the content of education, development of didactic laws and principles of the implementation of the educational process, improvement of the state educational standards, new generation of educational programs, textbooks, creation of educational.

Methodical issues occur in each lesson, however, usually they do not have a value solution. In order for the teacher to be able to quickly find the most suitable solution to the methodical problem in the lesson, it is required to have a wide range of training in this field.

Methodology of primary education as a means of teaching, existing didactic games are used in didactic games due to insufficient knowledge of logic and content from the mathematical point of view, and the material studied is used only as a means of studying.

The subject of mathematics primary education methodology is as follows:

1. To determine the intended purpose from the teaching of mathematics and to base (why mathematics is taught, taught).
2. The scientific development of the content of mathematics teaching (what to teach) how the level of knowledge presented in a system is distributed in such a way that it corresponds to the age characteristics of the students, consistent in the study of the basics of science is ensured, the load on which the teaching activities are carried out is eliminated, the content.
3. Scientific development of teaching methods (how to teach) that is, what should be the methods of teaching work so that students can acquire the necessary economic knowledge, skills, skills and intellectual activity skills that they currently have?
4. Teaching aids - the use of textbooks, didactic materials, visual aids and educational and technical means (what to teach with the help of).
5. Scientific development of the organization of education (how to organize the lesson and extracurricular forms of Education). [1]

The teacher of primary classes, according to the program on the subject of mathematics, provides for the provision of the following knowledge to students:

- Numbering whole numbers;
- Basic quantities and their units of measurement;
- Arithmetic operations;
- Text issues;
- Algebraic material (equality, inequality and etc.)
- Geometric material.

The form of organizing the teaching of mathematics in the school is checked in historical, complex, many years of experience and meets the basic requirements of the present time is a lesson. In the history of centuries-old development from the earliest times of mathematics to the present, its four periods of development are recorded:

1. The period of the emergence of mathematics associated with the accumulation of initial factors. Mathematics in this period is not yet a separate science, having its own subject and method, but only some facts from mathematics are collected. An example of this can be cited ancient Egypt, Babylon, Chinese and Indian mathematics.

2. The period of elementary mathematics. This period was founded by ancient Greek mathematicians and continued by Middle Eastern scientists from Central Asia, including Al-Fergani, Abu Ali IbnSina, Omar Khayyam, Ulugbek.

3. The period of mathematics of variable quantities.

4. The era of classical higher mathematics. [2]

The acquisition of the student's mathematical knowledge is not only dependent on the choice of the right method in the educational work, but also on the form of Organization of the educational process. The lesson is told to the educational work organized by an invariable number of students under the guidance of the teacher over a certain period of time, based on a clear schedule, determined by that program.

During the lesson, students learn from mathematics to theoretical reference, computational skills, solving a problem, performing various measurements, that is, in the lesson all the educational work is done.

The peculiarities of the mathematics lesson, first of all, arise from the features of this educational subject. One of the characteristics is that the elements of geometry are also studied simultaneously with the arithmetic material in it. Another specific aspect of the elementary course in mathematics is the joint consideration of theoretical practical issues. Therefore, with new knowledge in each lesson, practical training skills are provided for him.

If we draw attention here to the sentence of mathematical reality, then this reality is felt only when the students directly know the importance of mathematical calculations in the process of living, that is, they directly fulfill examples and issues related to everyday life. This means that the organization of teaching mathematics in relation to everyday life is important in the activities of the reader. On the basis of solving examples related to everyday life, the reader makes the conclusion that mathematical knowledge should be mastered as a vital necessity, and not simply the knowledge to be mastered.

As a rule, the lesson includes several practical materials: the acquisition of new material; the development of the mentioned material; the development of knowledge; the generalization of knowledge, systematization; the development of comprehensive training and skills. Another aspect of the mathematics lessons itself is that it is an abstraction of the instructional material. Therefore, visual means, the choice of meticulously active methods of teaching, the activity of students, the level of assimilation of students in the classroom, etc., also depend on.

In the lesson of mathematics, various district educative tasks are also solved. Students will be able to develop observation, insight, critical look around, initiative at work, responsibility and pure conscience, correct and accurate speech, calculation, measurement and accuracy in writing, and the ability to overcome labour and difficulties in teaching.

In addition to the lesson, the organization of the educational work includes the following forms:

1. Independent home works.
2. Individual and group sessions with students.
3. Classes with students with skills in mathematics.

4. Extracurricular lessons from mathematics.

5. The students developed a splash, an excursion to nature.

The work forms and lessons listed here complement one another. The main issue is related to the lesson. In the lesson, all works are directed directly by the teacher. And in additional training, the work is badgered by the teacher himself or by the pupils under the guidance of the teacher.

The situation, which should be based today, is an indicator of the search for convenient forms and opportunities for providing pedagogical assistance to the student and providing him with pedagogical support in the educational process. [3]

Each lesson with students is dealt with by several concepts. understanding each concept is carried out by repeating, remembering another concept, while this concept serves to explain further concepts. In the process of teaching, each learning material is carried out in a developed manner, this learning material will be the foundation for understanding the materials to be taught after itself. If we look at the process of mastering another concept, it is formed as a result of the teaching of several lessons of interdependence. Thus, the formation of mathematical concepts is formed not only in the course itself, but also in the process of passing several lessons that are interrelated. We call such lessons a system of lessons together.

Therefore, the teacher should place the lessons in a logical sequence, which will open the content of the subject. The greatest demand is to pay attention to the educational purpose of the lesson, to take into account the methodological and general pedagogical aspects of the principles of teaching. The system of well thought-out lessons on the subject depends on the correct distribution of the study time on the subjects. In it, attention should be paid to the formation of the independence of students, to look at private examples, to draw private conclusions, to draw more general conclusions from them. This knowledge should be generated in the system of lessons and provide for the solution of examples and issues after being fortified. After that, it is necessary to process skills with the help of exercises, as well as to constantly bring and generalize the acquired knowledge in one system.

The following main stages are considered when determining the content of some kind of subject of the program, dividing the subject material into lesson Times, that is, the assimilation of knowledge:

1. Preparation of new material for teaching.
2. Perception of new learning material and generation of new knowledge.
3. Strengthen knowledge and build skills through a variety of exercises.
4. Repetition of knowledge, generalization and bringing to a single system.
5. Verification of knowledge and skills.

One of the factors that increase the students' activity in the process of teaching mathematics and enhance their interest in mathematics is the independent work carried out with the students.

Independent work in mathematics lessons is carried out in preparation for the study of a new material, acquaintance with new concepts, strengthening knowledge, erudition and skills, as well as in the control of knowledge.

## ORGANIZATION OF TRAINING

The form of teaching is the educational cognition activities of students in which it is carried out under various conditions (classroom, functional, etc.). It is the organization by which the student is used in the educational teaching process in accordance with the conduct of the course (s).

Organizational forms of teaching mathematics in primary classes consist of lessons, independent performance of household tasks, and work of students individually as a group and as a team, extractions, extracurricular work.

The curriculum vitae are a state document approved on the basis of SES, and its implementation is mandatory. The Fulfillment by students of the requirements of state standards of natural mathematical education of primary classes contributes to the acquisition of the necessary knowledge, qualifications and skills, the formation of a positive attitude to knowledge:

- a) Adaptation of students to the natural environment around them, formation of the student in a new social status;
- b) Possession of different types of activities: training, labor, communication;
- c) To teach self-control and assessment rating determination;
- d) A certain level of general natural-scientific nature and a description of its further development.

Thus, the introduction of the state standard of natural mathematical education in primary classes into the educational-cognitive process is not only a natural-scientific knowledge, skills and competences in the educational sciences, but also a certain set of basic activities of the individual provides for the formation of qualities corresponding to the structure of labor, educational-cognitive, communicative-moral and physical.

With the increasing amount of information day by day, it becomes clear that today's students cannot teach everything they need. Assimilated information is very quickly outdated, because every day new information is coming out. The theory of teaching in science reveals the law of the functioning of methodical systems of teaching this science. The methodology will introduce them, and the technology will develop methods for implementing this model.

The explanation is analyzed in the following ways:

- 1) Dogmatic method.
- 2) the eristic method;
- 3) Research method (problematic method);

Working together contributes to the activity of cognition, forms the qualities of mutual control and mutual assistance in students, fulfills the educational task.

It should be remembered that in the solution of educational tasks not only some educational space of the lesson, but also the entire educational process will help the content of education, methods of teaching work, thorough organization of the lesson.

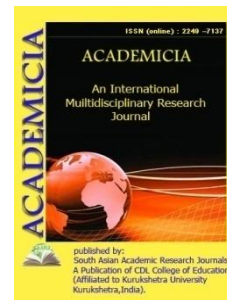
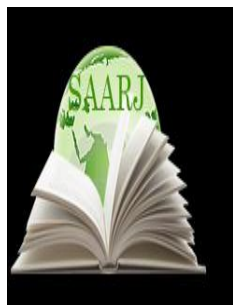
Specific problems arise in the teaching of students from the age of 6-7 years. Teaching, addition, and multiplication at the first stage (within twenty) of learning the number, has become the main

task of primary education. But this task will not be the only one, but will be part of the work of preparing students for the study of mathematics in a broader and more comprehensive way. It is determined by two main ways: the pedagogical path, that is, the preparation of students' thinking for applied mathematical reasoning and the path to mathematics, that is, the preparation of students for the study of the most important mathematical concepts, first of all, the concepts of natural number and geometrical form.

In preparing students for the study of mathematics, it is necessary to find a new solution to what started the work. In order to learn mathematics "seriously", it is necessary to pass "mathematical games" with them, not before the students move to the party. In school preparation, didactic games are used, but these games, first of all, be enriched with logical and mathematical content, and secondly, they are played not in the training itself, but before or after it.

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## AGROTECHNICS AND ADVANTAGES OF SILKWORM FEEDING ON THE BASIS OF FOREIGN TECHNOLOGY

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### ABSTRACT

*The main food of silkworms is mulberry leaves, which differ from each other in the nutrient unit variety or hybrids, so the silkworm changes weight, develops smoothly and peels the larvae as a result of washing the mulberry leaf in 0.2% chlorinated water. Mulberry leaf disinfection with worms has been disinfected with chlorine, and formalin-added soil spraying at any age has provided a basis for reducing mulberry leaf consumption, shortening the worm cycle, and preventing various infectious diseases.*

**KEYWORDS:** *Silkworm, Food, Film, Breed, Hybrid, Temperature, Humidity, Viability, Formalin, Chlorine, External Environment, Stove, Paper.*

### INTRODUCTION:

Sericulture is one of the most important branches of agriculture in Uzbekistan, which brings currency to the national treasury. In this regard, during the years of independence, the President of the Republic of Uzbekistan has adopted a number of decrees and resolutions on measures to further develop the silk industry of the Republic of Uzbekistan strengthen its food base and increase the production of silk products. In order to implement these decisions, a number of positive measures are being taken to further develop the Republic's silkworm breeding, to determine its prospects and to ensure that the raw materials grown meet international standards. A number of scientists are working on the creation of new breeds and hybrids of silkworms, the

application of new technologies in worm farming, industrial seed production, improving the quality of cocoons and obtaining high-quality silk fiber.

The main purpose of the study is to increase the efficiency of silkworm breeding by analyzing the biological parameters of silkworms, productivity traits and changes in silkworm survival and viability, as well as the impact of silkworm disease and cocoon productivity on the basis of foreign technology and current agricultural techniques.

Accordingly, it has been studied that if silkworms do not feed well during the larval period, especially at a young age, the worm period is prolonged and the worms remain different, and the weight of the cocoon depends not only on the growth of the fungus but also on the silkworm malnutrition and mulberry varieties.

Silkworm breeds IPAKCHI-1, IPAKCHI-2 were obtained. The mulberry tree was fed with mulberry varieties imported from Jarariq 2, Jarariq 3, Dezimonti (Korea), Aripsisi (Japan), Go-sha-sen (China) and Tajik seedless mulberry varieties.

### **MATERIAL AND METHODS:**

The research was conducted in 2019-2020 at the Chinese joint venture "SAMARKAND TIAN ZHU SILKWORM" in Samarkand. The following conditions were created for the revival of silkworm seeds and worm feeding:

- determine the time of sowing seeds for revival, depending on the arrival of spring weather conditions;
- preparing the incubator for resuscitation;
- Disinfection of the incubator;
- Preparation of live worm rooms in special silkworms for feeding;
- Manufacture of equipment used for feeding silkworms.

The conditions for feeding silkworms are currently improved by feeding caterpillar in the improved method recommended for production, in which young (1-3 years old) worms are exposed to a temperature of 26-27 C<sup>0</sup> and 65-75% humidity, 16 hours of natural light and every 2 hours. Aired for 15-20 minutes in –2,5hours. In the fourth year at a temperature of 25-26 C<sup>0</sup> and a relative humidity of 60-70%, and in the fifth year at a temperature of 24-25 C<sup>0</sup> and a relative humidity of 60-65%, the caterpillar is ventilated for 16 hours in natural light and every 2-3.5 hours for 20-25 minutes and fed conducted in foreign technology. At each feeding, the leaves were washed in 0,2 % chlorinated water and the leaves were refreshed in a special MINYA T98-180 leaf dryer. Young silkworms are fertilized 3 times a day with leaves at 8 am, 2pm, and 7 pm o'clock (no given are leaves at night). Adult fourth-year mulberry silkworms are leafed 3 times a day at 8am, 2 pm and 7 pm hours (no leaves at night). The fifth-year-old mulberry silkworm is infested with leaves 4 times a day at 7hours, 12 hours at 17 hours, and 20 hours (at night the leaves are given once).

### **RESULTS AND DISCUSSION:**

Young caterpillars are rearing. Silkworms are very delicate at a young age and require careful care. Caterpillars designed to feed them were brought to the norm of disinfection, temperature

and humidity 1-2 days before the introduction of silkworms from the incubator. So, the development of silkworms in mulberry silkworm feeding agriculture technology, if the day is 23-25 days, the silkworm feeding agriculture technology should be as follows. These data are illustrated in Table 1 in Appendix mode.

**TABLE 1. STANDARDS AND REQUIREMENTS OF AGRICULTURE TECHNOLOGY OF MULBERRY'S SILKWORM FEEDING. (AT THE EXPENSE OF 1 BOX OF EGGS)**

Ages and sleep	Duration of development (in days)	Feeding area, m <sup>2</sup>	Leafing during development, (kg)	Leaf rate (times)		Type of mulberry leaf feeding
				day	night	
1 <sup>th</sup> instar	2.5-3	1.5-2.0	2.4	3	-	small straw form
peeling	1	1.5-2.0		-	-	
comparator 1 <sup>th</sup> instar	2.5-3	1.5-2.0	6	8	2	small straw form
peeling	1	1.5-2.0		-	-	
2 <sup>th</sup> instar	3	5-6	12.2	3	-	whole leaf
peeling	1	5-6		-	-	
comparator 2 <sup>th</sup> instar	4	5-6	17	7	2	whole leaf
peeling	1	5-6		-	-	
3 <sup>th</sup> instar	3	12-15	32.8	3	-	young leaves
peeling	1.0-1.5	12-15		-	-	
comparator 3 <sup>th</sup> instar	4	12-15	60	6	2	young leaves
peeling	1.0-1.5	12-15		-	-	
4 <sup>th</sup> instar	6	25-30	115.2	3	-	whole leaf
peeling	1.5-2	25-30		-	-	
comparator 4 <sup>th</sup> instar	6	25-30	165	7	2	whole leaf
sleeping	1	25-30		-	-	
5 <sup>th</sup> instar	9	50-60	676.3	3	1	young leaves
spun silk	3-4	60-65		-	-	
comparator 5 <sup>th</sup> instar	7-8	50-60	750	6	2	young leaves
spun silk	3-4	60-65		-	-	

From the data in this table, we can see that the consumption of mulberry silkworms on the basis of foreign technology has slightly decreased leaf consumption when fed with agriculture technology.

**At the first age,** the teeth of the worms were small and thin, so they were cut (chopped) with wet and soft mulberry leaves 5-6 mm wide. The prepared leaf was prepared so that it could be fed 3

times so that it would not wither, and the polyethylene film was placed in bags. Each time the silkworms were given the required amount of leaves, they were prepared in sequence. The first age of care for the worms according to agronomic rules lasted 3 days. On day 1, before the first leaf was given, formalin and soil were sprinkled around the worm in a mixed state, then 50 g of leaves were given, the second leaf was given at 75 g, and the third leaf was given at 125 g. On day 2, the first leaf was given at 150 g, the second leaf at 200 g, and the third leaf at 300 g. On the 3rd day, the first leaf was given 350 g, the second leaf was given 500 g, and the third leaf was given 650 g of leaves. A total of 2.4 kg of leaves were consumed during the year. At the first age the worms are very carefully stuffed with leaves on a flat surface. If the leaves are overgrown, the worms will not be able to eat the leaf completely and the leaf will wither and remain among the withered leaves, as a result of which the worms that have not come out of the old leaves can be thrown out along with the leaves. Straw ash burned during sleep is sprinkled on the worms. This process was repeated at all ages of the worms so that the sleeping worms did not consume the dried leaf.

**At the second age**, a special net (0.1 mm) is thrown over the worms. The worms were given soft mulberry leaves cut (cut) 8-10 mm wide. The rules for giving and keeping leaves to second-year worms are the same as for first-year silkworms. The second age lasted 3 days when the worms were fed properly according to the agronomic rules. On the 1st day before spraying the leaves are sprinkled on the worms in a mixed state of formalin and soil. At the same time, 750 g of leaves were given 850 g was given for the second leaf, and 1,0 kg for the third leaf. Day 2: 1.1 kg 1.3 kg and 1.5 kg. Day 3: 1.7 kg, 2.0 kg and 2.0 kg of leaves were given and a total of 12.2 kg of leaves were consumed.

**In the third age**, the rules for giving and storing leaves were the same as in the first and second year worms. The third age of the larvae lasted 3 days, when the worms were fed according to the rules of agronomics. On the 1st day before spraying the leaves are sprayed on the worms in a mixed state of formalin and soil, then 2.4 kg, 2.8 kg, 3.0 kg of leaves are given. Day 2: 3.2 kg, 3.6 kg, 4.0 kg Day 3: 4.2 kg, 4.6 kg and 5.0 kg of leaves were given and a total of 32.8 kg of leaves were consumed.

**At the age of four**, the rules for giving and storing leaves are the same as for young worms. When the worms were fed normally according to agronomic rules, the fourth age of the larvae lasted 6 days. On the 1st day before spraying the leaves are sprinkled on the worms in a mixed state of formalin and soil, then 5.0 kg, 5.2 kg, 5.4 kg of leaves are given. Day 2<sup>th</sup> 5.5 kg, 5.7 kg, 5.8 kg. Day 3<sup>th</sup> 6.1 kg, 6.2 kg, 6.4 kg. Day 4<sup>th</sup> 6.5 kg, 6.7 kg, 6.8 kg. Day 5<sup>th</sup> 7.1 kg, 7.2 kg, 7.4 kg. Day 6<sup>th</sup> 7.5 kg, 7.7 kg and 7.0 kg of leaves were given and a total of 115.2 kg of leaves were consumed.

**In the fifth age**, the rules for giving and storing leaves were the same as for worms of all ages. When the worms were normally fed according to agronomic rules, the fifth age of the larvae lasted 9 days. Leaves were given 4 times a day, 3 times a day (1 time at night). On the 1st day before spraying the leaves are sprayed on the worm in a mixed state of formalin and soil, then 7.0 kg, 7.4 kg, 7.8 kg and 8.3 kg of leaves are given. Day 2: 8.7 kg, 9.3 kg, 9.6 kg and 10.0 kg. Day 3: 11.5 kg, 12 kg, 12.5 kg and 13.1 kg. Day 4: 13.7 kg, 14.3 kg, 14.9 kg and 15.6 kg. Day 5: 16.3 kg, 17.0 kg, 17.7 kg and 18.5 kg. Day 6: 19.3 kg, 20.1 kg, 20.9 kg and 21.8 kg. Day 7: 22.8 kg 23.8 kg, 24.8 kg and 25.9 kg. Day 8: 27.2 kg, 29.5 kg, 32.3 kg and 35.4 kg. Day 9: 33.6 kg,

32.5 kg, 31.2 kg and 30.0 kg of leaves were given and a total of 676.3 kg of leaves were consumed.

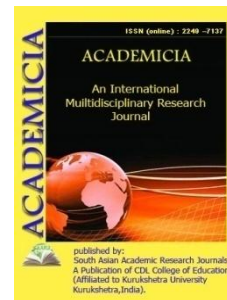
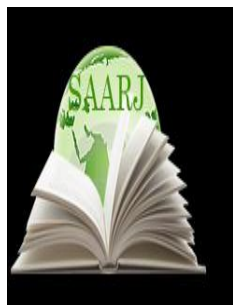
### CONCLUSION:

1. In the care of mulberry silkworms on the basis of foreign technology, the consumption of food among young people at the age of 1 year is 3.6 kg compared to the comparator, at the age of 2 - 4.8 kg, at the age of 3 - 27.2 kg, at the age of 4 - 49.8 kg. At age 5, it was found that 73.7 kg of leaves were consumed less than the comparator. Compared to the total youth comparator 159.2 kg less leaf consumption was found.

2. Mulberry leaves were consumed in small amounts when fed under film. The goal of spraying a substance (dry formalin) on silkworms for days of each age has been proven to prevent the spread of silkworm disease.

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## **PRACTICAL IMPORTANCE OF SCIENCE, EDUCATION AND DEVELOPMENT OF MODERN SUNSHINE PHOTO ELEMENTS IN PHYSICAL EXPERIMENTAL CLASSES**

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### **ABSTRACT**

*The number and quantity of semiconductor-based devices is growing rapidly, and their application to various industries is expanding. It is now difficult to find areas of human activity where semiconductors are not used. It is used in semiconductor-based automation, telemechanics, radio electronics, electronic computing, space science stations, and even as small power stations in some developed countries. The role of semiconductors in solving such an important global problem as the conversion of solar energy into electricity is enormous. In addition to improving the currently efficient photovoltaic cells, including solar cells and other low-energy semiconductor devices, there are plans to build large-scale, high-capacity solar power plants based on semiconductors. Because the use of solar energy is absolutely harmless to human nature.*

**KEYWORDS:** *Photocells, Semiconductors, Alternative Energy Sources, Wind Energy, Geothermal Energy, Bioenergy, Light Flux.*

### **INTRODUCTION**

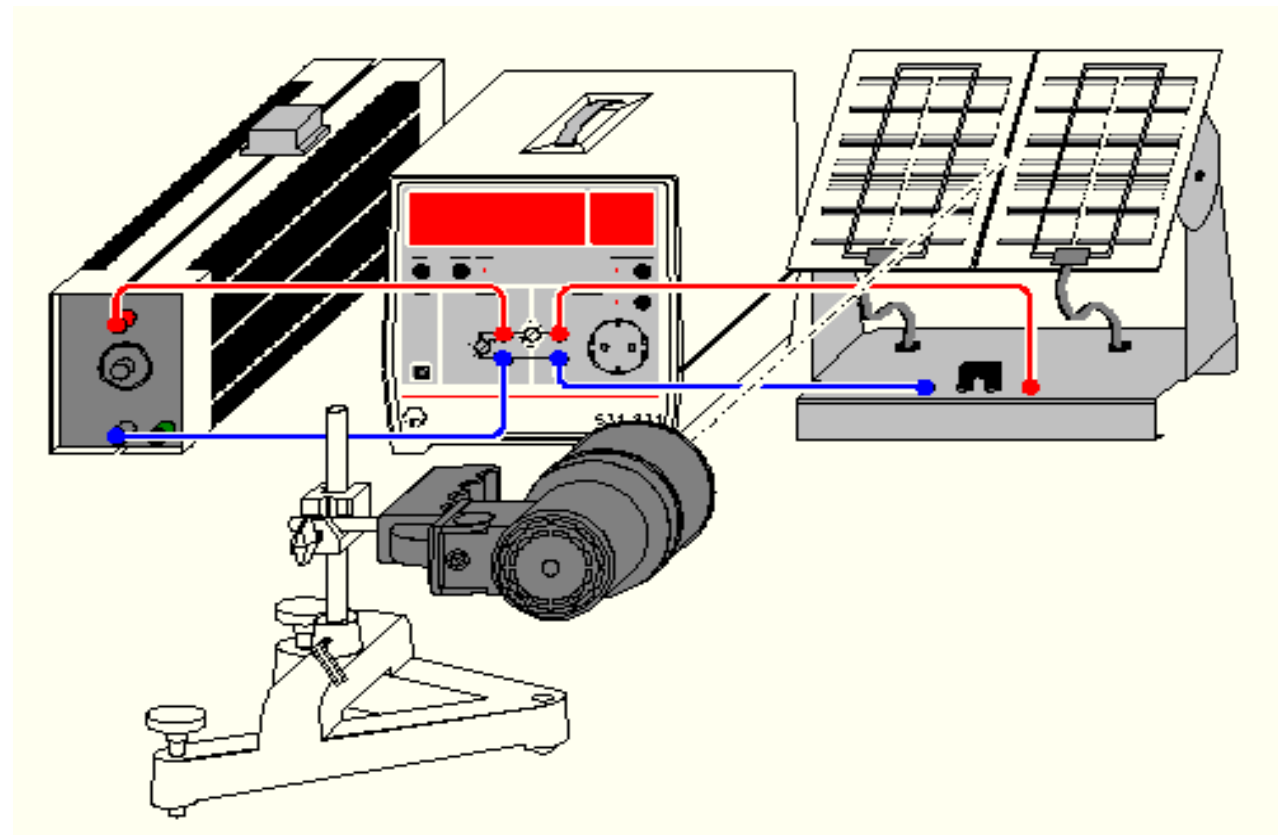
Today, humanity's need for energy sources is growing. The main reason for this is, firstly, the increase in the population of our planet, and secondly, the decrease in the energy reserves available on Earth. The solution to this problem is to find opportunities for efficient use of alternative energy sources in all areas. Of course, these types of energy are currently more expensive than existing types of energy, but they are environmentally friendly, energy efficient, and do not require complex technological equipment and tools. So, the first major challenge is to reduce the cost of recognizing alternative energy sources, and the second is to develop their improved technologies. This requires, first of all, modern specialists with knowledge and skills

on the fundamental and practical foundations of alternative energy sources, their construction. In the training of such modern specialists, it is necessary to ensure an integral link between science, education and production.

## **MATERIALS AND METHODS**

At present, a lot of innovations and discoveries are being made in science. These innovations, the ability to apply the discoveries directly to the educational process, are limited. This information can be methodically, methodologically and scientifically processed and then applied to the educational process. After that, it will be possible to develop knowledge, skills and competencies in the pupil and students. In particular, let's look at the educational process in general in the delivery of information to students about alternative energy sources. It is known that alternative energy sources include solar photovoltaic, wind energy, geothermal energy, bioenergy and others. The most efficient of these is solar photovoltaic. As a result of many years of scientific research conducted by scientists around the world, many innovations, discoveries and modern designs have been developed in the field of solar photovoltaics. There is also a need to publish in the scientific literature in a clear and simplified form on the basis of scientific data in science, analysis of results, generalization. One of the most important issues in the field of solar photovoltaics today is the complexity of the technology of obtaining raw materials and the fact that the efficiency of solar cells, solar cells is not very high. Therefore, great attention is paid to the quality of raw materials used in solar photovoltaics, the level of purity and the possibility of their mass production. In terrestrial conditions, the element silicon is widely used and is widely used as a raw material in solar photovoltaics. It is obvious that the interdependence of science, education and production should be fully covered in scientific, popular science manuals and literature.

Solar power plants have the potential to make efficient use of a type of energy that is environmentally friendly and energy efficient, as well as technically safe, in converting solar optical radiation into electricity. In order to convey this information to schoolchildren, it is advisable to conduct circle sessions using presentations, animated visual aids and various other exhibitions. It is also recommended to use Venn diagram, T-table, conceptual table, FSMU, and cluster methods and techniques of organizers for comparison and analysis in experimental training, debated, modified lectures, brainstorming, scientific seminars, and in discussion classes. As an independent learning tool, students should be helped to master crossword puzzles, interesting questions, and guidelines for making visual models in order to provide information on alternative energy sources. This is because the process of circle work alone is not enough to acquaint students with the physical and technological foundations of alternative energy sources. At the same time, it is useful for more students to find and study independent information. From this point of view, there are opportunities to study the physical basis of traditional and non-traditional energy sources, modern constructions. Students will also develop knowledge, skills and competencies in the use of alternative energy sources, in particular solar energy.



Using a device shown in the figure, it is possible to see the flux of light incident at an angle to the solar photocell according to an experiment conducted in the laboratory. If the luminous flux of a solar cell is reduced at an angle, then the change in FIK will depend on the value of that angle. The reason for the increase in FIK ( $\eta$ ) with increasing light intensity can be explained as follows. Energy  $h\nu$  is used to generate unbalanced charges. This energy is mainly used to heat the grille and do the work from the outer chain.

An increase in light intensity leads to an increase in  $e$  ( $U$ ) and an increase in useful work. It also leads to an increase in the reverse current of the charge carriers as the light intensity increases.

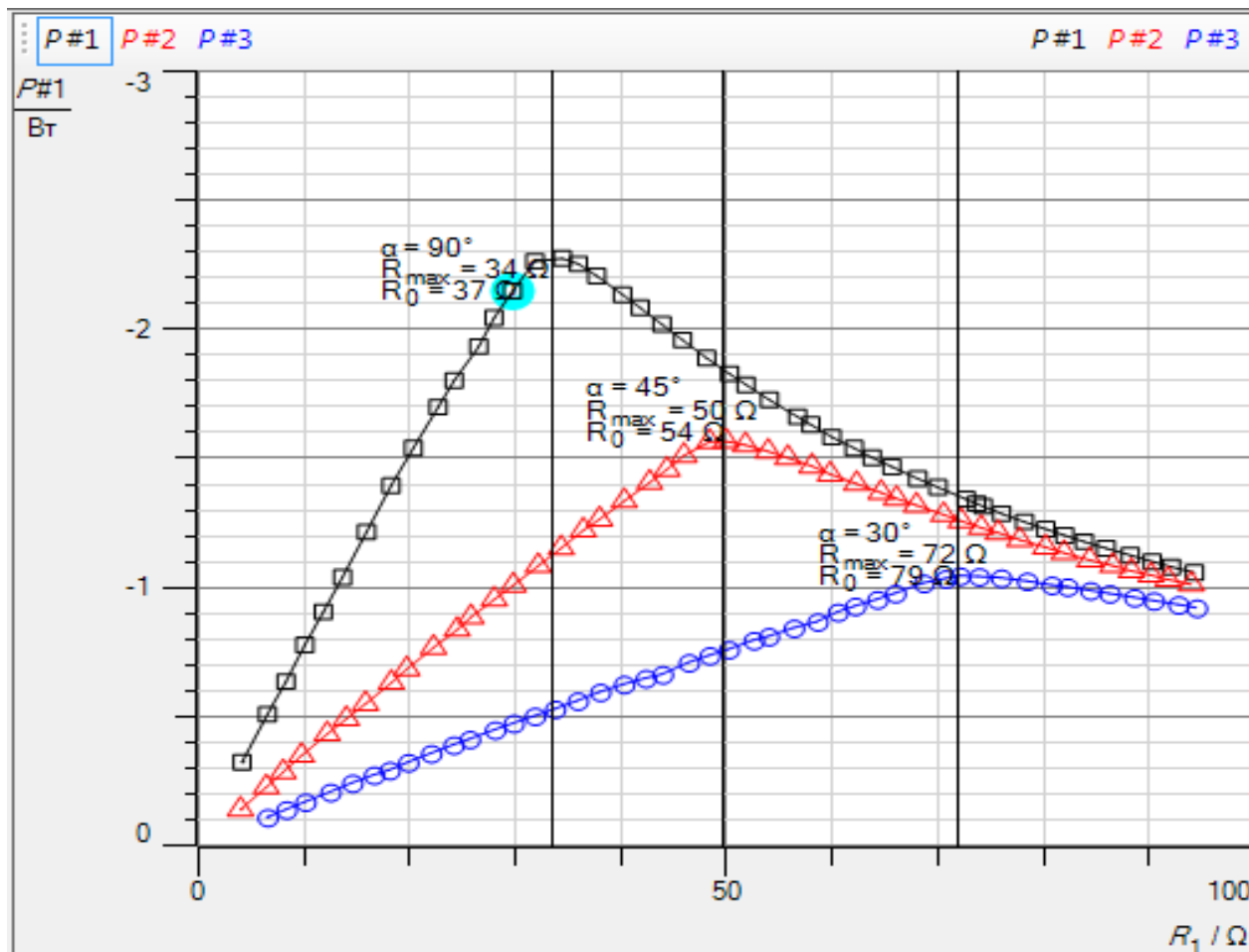
Therefore, in solar power plants, the electricity generated by a large number of solar cells is transmitted to power lines and used for consumption on the basis of an automated system. We can see from the experimental results how the light flux from the sun falls at an angle so that the FIK obtained from them is good. That is, the following experiment shows that according to the resulting graph, as the angle decreases, the resistance increases and the capacity of the solar cells changes. Views of such automated solar power plants, and those designed for direct solar optical radiation, should be based on experimental results.

**TABLE: THE CHANGE IN RESISTANCE AND POWER WHEN A STREAM OF LIGHT IS INCIDENT AT AN ANGLE TO A SOLAR CELL.**

$\alpha=90^\circ$		$\alpha=45^\circ$		$\alpha=30^\circ$	
$R_1$	$P_1$	$R_2$	$P_2$	$R_3$	$P_3$
4	-0,32	4	-0,14	6	-0,11
6	-0,51	6	-0,23	8	-0,14
8	-0,64	8	-0,28	10	-0,17
10	-0,78	10	-0,35	12	-0,21
12	-0,91	12	-0,43	14	-0,24
14	-1,04	14	-0,49	17	-0,27
16	-1,22	16	-0,55	18	-0,29
18	-1,39	18	-0,63	20	-0,32
20	-1,54	20	-0,68	22	-0,36
23	-1,70	22	-0,77	24	-0,39
24	-1,80	24	-0,84	26	-0,41
27	-1,93	26	-0,89	28	-0,45
28	-2,05	28	-0,95	30	-0,48
30	-2,15	30	-1,01	32	-0,50
32	-2,26	32	-1,08	34	-0,53
34	-2,28	34	-1,15	36	-0,56
36	-2,25	36	-1,22	38	-0,60
38	-2,21	38	-1,26	40	-0,63
40	-2,13	40	-1,34	42	-0,65
42	-2,08	43	-1,41	44	-0,66
44	-2,02	44	-1,46	46	-0,71
46	-1,96	46	-1,51	48	-0,74
48	-1,89	48	-1,57	50	-0,76
50	-1,83	50	-1,57	52	-0,80
52	-1,79	52	-1,55	54	-0,81
54	-1,73	54	-1,53	56	-0,84
57	-1,66	56	-1,50	59	-0,87

58	-1,63	58	-1,47	60	-0,91
60	-1,58	60	-1,44	62	-0,93
62	-1,54	62	-1,40	64	-0,95
64	-1,50	65	-1,37	66	-0,98
66	-1,47	66	-1,35	69	-1,02
68	-1,42	68	-1,32	71	-1,04
70	-1,39	71	-1,28	72	-1,05
73	-1,34	72	-1,26	74	-1,04
74	-1,33	74	-1,23	76	-1,04
74	-1,31	76	-1,21	78	-1,03

### Results obtained from a CASSY Lab 2 computer program and their analysis

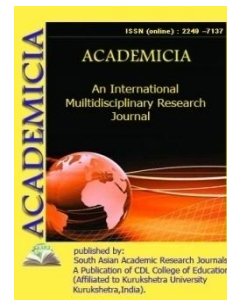
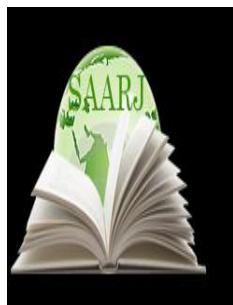


**CONCLUSION**

The results show that solar power plants have the potential to effectively use a type of energy that is environmentally friendly and energy efficient, as well as technically safe, in converting solar optical radiation into electricity. There is an opportunity to develop new theories of the mechanism of solar energy and find ways to increase their efficiency.

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## A STUDY OF NEW MEDIA COMMUNICATION THROUGH PUBLIC DOMAIN AND CORPORATE SOCIAL RESPONSIBILITY

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### ABSTRACT

*CSR has been practiced by corporate companies since many decades but the new Company's act, 2013 has activated many of them to implement it in true spirit. Many of them have been found adopting the right perspective in engaging themselves in the practice of CSR. As in any sector communication has been playing an important role in motivating the external as well as internal public to adopt the concept of CSR. Information about the practice of CSR is being offered to public in various formats by companies which in turn are generating feedback which would help in improving the implementation and also motivate others in right direction. In this aspect new media is also being used by corporate houses. To study the usage of this media the researcher tried to study websites of the public sector companies especially the Maharashtra companies and it has been observed that many of them are using this public domain effectively.*

**KEYWORDS:** *Feedback, Perspective, Public Domain, New Media*

### INTRODUCTION

Corporate social responsibility (CSR) is concerned with treating the internal and external stakeholders of the firm ethically or in a socially responsible manner. The wider aim of it is to create higher and higher standards of living, while preserving the profitability of the corporation, for its stakeholders (Hopkins 2003). The concept of corporate social responsibility envisages that organizations have moral, ethical and philanthropic responsibilities too. Carroll and Buchholtz's (2003, p 36) definition of CSR makes the multifaceted nature of social responsibility explicit. The concept of CSR has come to wide use since 1960's only but the economical, legal, ethical and discretionary expectations placed on organizations differ widely. In twentieth century big

business houses asserted highhandedness and have been assertive in practicing anti social and anti competitive practice.

In 1960s and 1970s the Civil rights movement, consumerism and environmentalism have forced the companies to be proactive in shouldering some of the responsibilities of business which in turn participated and contributed to the development of the society. Though already they were forced to abide by the guiding principles of providing equal employment opportunities, product safety, conservation of environment etc. society began to expect corporates to voluntarily contribute its best to the society which is the theme of CSR. According to Carroll and Buchholtz, since CSR is increasingly becoming a global concern, the differences in societal expectations around the world decrease in the coming years. In recent years, CSR has gained importance in emerging countries (Li et al, 2010, Baskin, 2006). As Post, Lawrence and Weber feel that stakeholders are individuals and groups that are affected by the organization's policies, procedures and actions so also in the case of CSR. All companies, especially large corporations have multiple stakeholders. Apart from these the society in general also expects to get some immediate benefits such as employment facilities, food shelter, water, health and medical facilities etc. CSR should focus more on community participation and development so that the society enjoys the real benefits but not the virtual benefits (Manku, 2015). This problem is complex because societal standards and expectations regarding working conditions vary widely. Corporations must decide which the responsible option is, adopting the standards of the countries in which they are operating. Some USA companies for example have marketed products in other countries after the products were banned in the United States. CSR is a complex topic. There is no question that the legal, ethical, and discretionary expectations placed on business are greater than ever before. Few companies totally disregard social issues and problems. Most purport to pursue not only the goal of increased revenues and profits but also the goal of community and societal betterment.

### Current Scenario

Research suggests that those corporations that are ethically and socially responsive enjoy high levels of performance. The ultimate motive for corporations to practice social responsibility should not be a financial but moral and ethical one. Muller and Kolk (2009: 325) point out that not many studies were observed about CSR in developing countries (Fifka, 2012). Research on CSR in India has quite a long tradition (Singh and Ahuja, 1983) and also only in recent years several studies were taken up in this area (Sahay, 2004; Chapple and Moon, 2005; Chaudhri and Wang, 2007; Gautam and Singh, 2010; Kanchan, 2010). Earlier CSR was taken up voluntarily by corporate companies but now it has become an obligation for them. After the introduction of Section 135 of the Companies Act, 2013 which made amendments to the CSR, a more serious discussion has been started. More or less all the companies have been forced by the law to take up CSR mandatorily. Irrespective of the recent regulations, the Indian Public Sector Undertakings (PSUs) have been practicing CSR both morally and statutorily under the Guidelines on Corporate Governance for Central Public Sector Enterprises, 2010 (issued by the Department of Public Enterprises). Thus, PSUs have experience and advantage over other private companies in terms of CSR compliance.

- Data released by the Ministry of Heavy Industries & Public Enterprises show that the 5 Maharatna companies ONGC, Coal India, IOC, NTPC and SAIL managed to spend just 49%

of the combined budget for three years beginning 2009-10 till end of September 2011. The combined spending of the Navratnas was higher at 65%. Five of these 21 PSUs managed to spend less than 25% of the CSR budget of the three years. Coal India spent only 6% of the budget till September 2011. Indian Oil Corporation spent 85% of the Rs 264.4 crore it set aside and SAIL 72% of the Rs 179.68 crore. (Edwin, 2012).

- PSUs are facing numerous challenges and limitations while implementing CSR programs. They largely relate to the organizational level issues such as absence of a dedicated CSR team, active involvement of key stakeholders, budgetary issues and identifying apt CSR projects and their beneficiaries. Survey findings revealed that identifying appropriate CSR projects is the top-most challenge of the PSUs.
- Around 28% of the companies surveyed, feel that identifying appropriate social projects and their beneficiaries is their biggest concern. Data has already shown that Maharatna and Navratna public sector undertakings (PSUs) have not been able to fully spend their CSR budget.

### Media Focus and Recognition

It has been observed that the status of CSR in Public sector undertakings is particularly not palpable to media as the coverage is scattered. Other than tangible changes in the policies, rest of the issues do not find any mention in media. HPCL, ONGC have a remarkable media presence and appeal which keeps them lively and noticeable most of the time. On the other hand, OIL is weak on the media front. In order to recognize and motivate CSR initiatives, various awards and rankings are announced by several associations. Oil sector enjoys a regular presence in such forums and is the winner of several awards and rankings. GAIL has recently been awarded 7th position by the “*Economic Times*” in its latest report on Best corporate in India in the area of CSR. BPCL is also a part of that list. However, companies such as HPCL, IOCL, ONGC, and BPCL are great examples in terms of CSR management. They have a visible presence in the public arenas and media. They are collaborating with renowned third party organizations that include NGOs, government bodies, academic institutes etc. to make their efforts more specialized and effective. They view CSR more as a value rather than a responsibility which is showing visible differences in the impact of their initiatives.

### METHODOLOGY

Maharatna companies, the biggest and the top PSUs in the country were selected for the study as they are run by public money and should be bound by the law. The researcher tried to study how far these companies are taking steps to provide information in the public domain especially in the websites which can readily reach masses. Since the researcher wanted to study the communication aspects in case of PSUs( Public Sector undertakings) as to how the information about these activities is being sent back to the stake holders who are basically primary as well as secondary in nature. As the PSUs are owned and run by the governments the onus of making information public about activities would be more on the PSUs compared to the private sector companies. And it becomes imperative to put the information in public domain. The researcher selected the seven Maharatna companies ie. IOC, HPCL, GAIL, BHEL, ONGC, SAIL, and found out as to what type of information is sent out by the companies with regard to the CSR especially through websites maintained by them.

## Objectives

The study has been made

1. to find out what type of information is given by the companies
2. To find out as to which format is used to disseminate information through new media especially websites to the public.
3. To find out what measures were adopted to make the communication most effective.

## Analysis

CSR Provisions of the Companies Act, Companies (CSR Policy) Rules 2014, Schedule-VII to the Act, DPE's guidelines on CSR and Sustainability and clarifications/amendments thereof from time to time have been guiding the companies to take up CSR activities.

**Indian Oil Corporation.** Indian Oil Corporation constituted a Sustainability and CSR Committee of the Board consisting of at least three Directors, out of which at least one Director shall be an independent director. It also earmarked 2% of average net profits earned during three immediately preceding financial years for 'CSR budget' of the year, which will be non-lapsable. Sustainability and CSR Policy and its contents are displayed at Indian Oil's web site, as per the format specified in the CSR Rules. The Directors' Report also includes an annual report on activities. Green initiatives, current projects, academic and social scholarships awarded by the company under CSR by the organisation have been displayed. But mostly, the information is given in the form of narratives and there was no mention of CSR board or committee or details of budget and spending etc in the website. It described the activities with a photograph and overall presentation was not much effective and did not create interest. In the website very few links were setup to go into details about CSR. The website listed all the awards won for CSR by the company.

**National Thermal Power corporation.** It has set up a separate foundation for CSR. It was named as "NTPC's foot prints: Power with CSR and sustainability" and was designed in an impressive and professional manner. The website of the company is very impressive with visuals and illustrations. An exclusive magazine with all the formal structures such as index page numbers, titles are published regularly for this purpose. The media presence and the public appeals of the power sector are weaker as compared to that of the other constituents of Oil Sector. However among many PSUs, NTPC has the maximum presence in various media portals. The company is involved in various CSR activities throughout the year which makes it visible on the charts of public recognition. CSR policy with objectives, specific objectives of drafting, implementation, review and CSR governance structure, budget, approach/ methods/ corporate employee volunteering, quality circles in villages, expenditure balance sheet, List of activities, Swatch Vidyalaya, Utkarsh scholarships etc are found in the website of the company.

**Oil and Natural Gas Company.** CSR activities undertaken by ONGC based on items listed in schedule vii of the companies are displayed in a special report which exhibits professionalism. Apart from this pursuant to the section 135 of the companies act 2013, a responsibility statement of the CSR & SD committee that the implementation and monitoring of the CSR activities is in compliance to the CSR and SD objectives and policy of the company are attached as annexures to the annual reports regularly.

**Bharat Heavy Electrical Limited.** The PSU which manufactures heavy machinery has started out a separate website exclusively for CSR in which a professional outlook is visible. It is a well conceived idea with a host of areas like CSR policy, organization structure, CSR thrust areas, projects taken up by them. Publications, recognitions as well as other details are placed effectively in it. It has meticulously designed website with elaborate text and impressive photographs. A mention is also made about the projects taken up under CSR. Many of the programmes are taken up in association with the local NGOs of repute. All the segments of the society are found to get some benefit or the other with the CSR activities. The thrust areas were given impressive names such as Healthy India, Educated India, and Inclusive India etc. which would readily get identified by the public. They were even explained with the help of visuals. Projects taken up were given in a tabular format with all the details. The company's transparency is evident in putting up certificates for CSR in websites which is an act of integrity. CSR thrust areas are highly inclusive as the concepts of local and global which are very much essential are taken up by the company. The activities are explained in an emphatic as well as narrative text. An exclusive magazine with the name of 'CSR prayas' is published which shall have details of all the CSR activities taken up by the company. It is being published since 2012 and bringing out two issues in a year and seven editions were brought so far. The company has taken up special protection measures such as exclusive "News Photography since 2006.

**Coal India Limited.** Efforts of CIL to take up the CSR into the public effectively are exhaustive and narrative. Many publications such as brochures, CSR magazines and policy documents are being published by the company. Other than these in all the annual reports of CIL special mention of CSR in detail is found. Its CSR cover page in corporate social responsibility and it has been mentioned by India CSR news network isle. It disseminates information about activities in a detailed manner by presenting event by event. It also gives awards to the best CSR projects throughout the country. It also started an exclusive face book and twitter account to promote itself and others. It also discusses news about CSR activities and provides updates regularly.

**Gas Authority of India Limited.** Though it has limited CSR activities it has a robust monitoring mechanism providing support at different levels using measures like: monthly and quarterly progress reports, site visits, video conferences, in house mechanism to popularize the activities. One novel feature in CSR is documentations is done by the company effectively. It's online magazine "Karmayog" discusses the activities and a novel point is that it mentions about each individual CSR Activity It rates its activities also and the data from 2007 is available till date. CSR umbrella, Hriday concepts adopted by the company. An exclusive name for each project such as Ujjwal, Kushal, Harita, Arogya, Unnaathi and Sashakth would readily go with the public. Exclusive videos on all projects taken up by the company and a separate GAIL CSR corporate film about its activities also showcases the interest the company evinces to bring out the best as a part of CSR.

**Steel Authority of India Limited.** An exclusive magazine is being published regularly about the CSR by SAIL. But it is not given any specific name. Information about these activities is given in detail with text in narrative format. Perfectly edited pictures with supporting special effects, specially designed layouts are noticed in its website regularly. Innovative feature of the company is that it makes a mention of objectives in a sector wise manner such as health, education, sports etc. Success stories of the CSR are described in an interesting manner. Performance indicators, separate score card for CSR are also prepared by the company which shows the seriousness with

which the company is committed to its CSR activities. Apart from these, regular CSR policy reports are also brought out by the company.

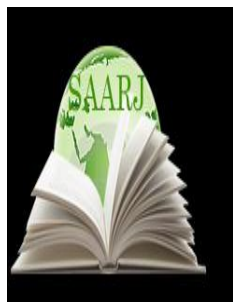
## CONCLUSIONS

The study found that being public sector entities the companies have to give back the benefit. The following steps may be taken up by the companies to make publicity of CSR more effective. The companies should try

- to design CSR policy effectively and try to revitalize the existing systems and opportunities to start a new one.
- to explore the scope for it the Government can make some robust policies as taken up in other countries.
- to plan collective efforts for fulfilling obligation of CSR.
- The companies should appoint professional communication experts to deal with the inputs and present them in a systematic manner.

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## SEMANTIC STRUCTURE OF PHRASEOLOGIES

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### ABSTRACT

*The article deals with the semantic features of phraseological units, phraseological meaning, their formal and semantic structure and modeling. For example, the phraseologism of a pig in a grave forms a semantic paradigm with the phraseologisms of closing the eye and dying, but the remaining members of the paradigm differ in the presence or absence of an axiological semaphore. The component that performs the function of creating phraseological meaning in the structure of phraseology is the semantic center of this phraseology. The role of the content center is mainly played by independent words.*

**KEYWORDS:** *Phraseology, Formal Structure, Semantic Structure, Integral Sema, Differential Sema, Phraseological Meaning, Component, Categorical Meaning, Axiological Marking, Modeling.*

### INTRODUCTION

Phraseological units have a certain formal structure as well as a certain semantics. Rahmatullaev considers semantics separated by semantic analysis of phraseological meaning as ideographic semantics [7, 176].

The semantic structure with the formal structure can be similar in several phraseological units. For example, person-related phraseologies, non-person-related phraseologies. For phraseologies related to the person, the common (integral) sign will be the personality sign (person), and this sign will be the basis for modeling. The symbolic representation of the model is also based on the integral symbol.

According to A.F. Losev, the model should have the sign of an orderly sequence of elements of this or that language. Therefore, the principle of fragmentation of language elements with an orderly sequence is considered as an important principle of defining linguistic models. Hence,

any model as a whole will have a hierarchical fragmentation feature. For example, the long-handed phraseologism forms a semantic group through the integral semantics of 'person' with the phraseologisms of eye opening, watermelon falling from the armpit. At the same time, the category differs by semantics. Hence, "in the next stage of division, the semaphores representing action or state serve as differential semaphores" [3, 9].

Because phraseology consists of certain formal and semantic components, it has an internal structure on both sides. In the semantic structure of phraseology, the common and integral aspects of phraseological meaning are clearly distinguished. The function of such meanings of phraseological units is categorical, evaluation, reinforcement-emphasis, partially animate-inanimate meanings [2, 26].

As noted above, an important component of phraseological meaning is categorical meaning. As in the lexical system, the hierarchical structure of phraseology is observed in the phraseological system. Categorical meaning occupies the highest stage in the semantic hierarchical structure of phraseologies. The categorical meaning of phraseologies has a high degree of abstraction, which includes the indication of which grammatical category the phraseologies belong to. Phraseologisms with the same categorical meaning are grouped under a larger paradigm, indicating that the phraseologies belong to certain word families. For example, phraseological units such as *blood flowing from the eyes*, wide liver belong to the category of quality, in response to the question of how to express the various features of the subject. The sign of an object is its categorical sign, which serves as an integral sign at the top.

Phraseologisms are divided into several types according to the nature of their categorical meaning. The first group of phraseologies consists of phraseologies, in which the categorical meaning is felt through the semantic dominant component of the phraseology. In particular, the leading component in phraseology of *the mouth in the ear* is the word in *the ear*, and the general meaning of the phraseology and the adjective categorical meaning are evident from this leading component. The second group consists of phraseologisms that are not perceived through the basic component of the categorical meaning of phraseology. For example, although the leading component of phraseology that *flash fire from the foot* is the verb *to flash*, but the categorical semantic of integrity is considered adjectival, the phraseology as a whole belongs to the category of adjectives with a sense of humor. A.Rafiev thinks about it and divides phrases into substantive, verb, adjective, adverbial types on the basis of basic components [6, 4].

Of particular importance are the semantic phraseologies that add value to the categorical meaning within phraseological units. Because FBs are rarely observed to be methodically neutral. Accordingly, axiologically marked members play an important role in the paradigm of phrases. Paradigm members can be divided into axiologically neutral and axiologically marked members. For example, the phraseologism of a pig in a grave forms a semantic paradigm with the phraseologisms of closing the eye and dying, but the remaining members of the paradigm differ in the presence or absence of an axiological semaphore. One inch member has an axiological sema, while the other members do not have such an sema.

B. Yuldashev emphasizes that the methodological meaning of FB consists of expressive-assessment paint and functional-methodical paint. It is a functional-methodological dye of FBs, showing the most important criteria for their methodological differentiation [4, 14-17].

Phraseological units can be initially divided into two groups according to their methodological-emotional status: i.e. as axiologically neutral and as axiologically marked members. Within their scope, axiologically marked organs are contrasted on the basis of positive and negative sign. On the basis of a positive rating mark, combined FBs can be defined as a euphemistic member, and FBs combined with a negative rating mark can be designated as a dysphemic member.

The process of phraseologization is inextricably linked with the deactualization of the components that make up phraseological units. A.Mamatov said that the basis of the formation of phraseology is related to the activities and psyche of the individual, in terms of occupation, in the field of household, cooking, medicine, agriculture, animal husbandry, music, based on the image of animals, religious concepts separates a number of groups such as [5,17-28].

The degree of deactivation of the components of phraseology varies. Accordingly, the degree of semantic rounding of the parts of phraseology also varies. Some components of phraseology have lost their syntactic function and semantic independence, and have become so cohesive and rounded that they have become a single, integral lexeme. They therefore occupy a place in the language system as members of a semantic paradigm with lexical units. For example, the components of the phraseology of *bringing the foot into the hands* have lost their semantic independence and have become a single lexeme - a fast lexeme. In some, the semantic independence of the components and the syntactic relationship between them are noticeable. Hence, phraseology is a dynamic process in which the degree of rounding increases gradually. Since phraseology is a dynamic process, the concepts of **semantic center** and **phraseological center** are important in this process. These concepts also serve as reference points in the modeling of phraseology [1, 103].

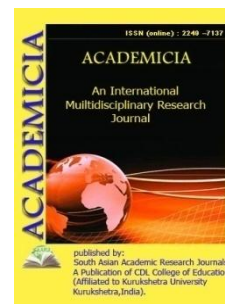
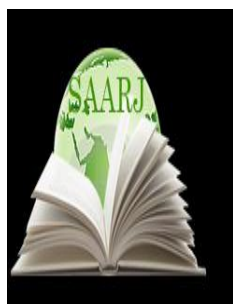
The component that performs the function of creating phraseological meaning in the structure of phraseology is the semantic center of this phraseology. The role of the content center is mainly played by independent words. The semantic center is specific to all phraseology and is determined by its consistency with the freely used word. In particular, the semantic center of phraseologies such as *open-handed* - generous, *open-hearted* - kind is an open component. The same section is consistent with freely used **generous** and **kind** words. Therefore, in the semantic modeling of phraseology, it is important to rely on such a semantic center. At the same time, there is the concept of a phraseological center, which serves in the formation of phraseology as a whole.

Phraseological and semantic centers are interrelated, interdependent phenomena that ensure the integrity of phraseology. While the semantic center brings phraseology closer together with free connection, the phraseological center brings phraseology closer to words [2, 95]. Phraseological models can be created based on both centers.

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## LEXEMAS OF SCIENCE AND EDUCATION IN THE WORKS OF REPRESENTATIVES OF JADIDISM

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### ABSTRACT

*The article deals with the semantic linguistic units "science and enlightenment" used in the journalistic and artistic works of the Uzbek Jadid movement, their functional features are also mentioned. In particular, in the early twentieth century, many works of art created by representatives of the Jadid movement, many scientific views on the development of language, its standardization, research on the purity of language. Any practical result begins with an in-depth study, a full understanding of the essence of certain concepts. One of the researches in this direction is the semantic study of semantic lexical units "ilm-ma'rifat" in the Uzbek language.*

**KEYWORDS:** *Enlightenment, Jadid Literature, Jadid Movement, Language Standardization, Spirituality, Enlightenment, Education, Assimilation, Sema, Semema.*

### INTRODUCTION

It is known that Turkestan enlightened artists, especially representatives of modern literature, have a worthy place in the history of national development. In this sense, it is necessary to objectively assess the contribution of the Jadid movement to the development of the Uzbek literary language, to put it in its place, to carefully analyze the artistic, scientific and methodological works created by them, to draw certain scientific and theoretical conclusions and inform the world. [8,5].

At each stage of the development of society, in a particular social system, there are concepts such as education, spirituality and enlightenment, which ensure the growth of man, which requires the study of innovations in the field of spirituality, education and upbringing in close connection with society.

As a result of independence, conditions have been created for the restoration and development of the national values of all peoples living in the land of Turkestan. A number of measures have been taken to approach its history on the basis of a new way of thinking, to restore the glory of the geniuses of the past, to apply their ideas to the life of the people.

During the years of independence, Uzbekistan has attached great importance to the radical study of the works and practical activities of great enlighteners. In particular, in the early twentieth century, many works of art created by representatives of the Jadid movement, many scientific views on the development of language, its standardization, research on the purity of language. It should be noted that the linguistic features of the works of representatives of this period became the basis for a number of monographic studies [1; 2; 3; 4; 5; 6; 7; 8; 9; 10].

Every social system, its future, the prospects of humanity, the standard of living and living standards of people are directly related to the development of science and culture.

The language of works of art, journalistic articles, dictionaries, textbooks and manuals created by the Jadids is distinguished by a simple, fluent style. The lexical units of science and enlightenment also have a special place in these works. Over the years, a number of new concepts and terms that express these concepts have also emerged in the education system. Below we talk about the semantic lexemes of "knowledge" used in the sources of modern literature.

Among the semantic units of "science and enlightenment" in the Uzbek language there are lexemes with the semantic "person", "subject" semantic lexemes such as school, book, pen, notebook. Education, science-related character lexemes can also come along with the above lexemes and form a separate paradigm. Such lexemes include excellent, good, average, bad, satisfactory, unsatisfactory units. They have in common with the semantics "education", "assessment", "degree" and differ from each other on the basis of degree indicators.

We can see that in the sources of the Jadid period, the semantic lexemes and phrases "science-enlightenment" were used a lot. In particular, M. Behbudi's "Language Problem", A. Fitrat's "Our Language", "The Literary Problem of Our Language", Elbek's "Spelling Problem", Cholpon's "What is Literature", Botu's "Language and Spelling Conference Results" -shows leadership in the field of education.

A number of lexical units related to education and enlightenment in the Uzbek language have a special place in the lexical macrosystem, and this paradigm has its own internal divisions. In the first division, the semantic lexemes "science-enlightenment" form the semantic subgroup "science", "education" and "enlightenment". Each of them is divided into internal divisions as semantic lexemes "person", "subject", "place", "sign", "process".

Semantic units of "science" used in the sources of modern literature:

- "Person" semantic lexemes: scientist, teacher, student, scholar;
- "Character" semantic lexemes: scientific; accessible.

*But knowing the scientific power of a **knowledge** depends on knowing the number of **scholars** there (Fitrat, Debate).*

*No, not everyone can be **knowledgeable**. If everyone becomes a **scientist**, other things will be left without an owner (Fitrat, "Discussion").*

Semantic units of "education":

"Person" semantic lexemes: mudarris, teacher;

"Place" semantic lexemes: school, madrasa;

Excuse me, excuse me, what is school? What do the kids do there and how many years will they be studying? (Fitrat, "Discussion")

The school is a place where there is a teacher who is called a "schoolboy", the children stay there for seven to ten years until they get the necessary literacy, and then ... they go to a madrasa and start teaching (Fitrat, "Discussion").

"Process" semantic lexemes: lecture, reading, lesson;

"Action" semantic lexemes: read, study;

As a teacher, I read books at night and teach during the day (Fitrat, "Discussion").

In this passage, the lexemes of seeing and speaking are present, and these units, together with the sema of "action," are expressed here by the sema of "learning," that is, by the sema of "reading," and by the sema of "teaching." Both functional states are almost non-existent in modern Uzbek.

Does this person have the necessary **literacy**? (Fitrat, "Discussion")

Semifinal units "Enlightenment":

- "Person" semantic lexemes: educational science

- "Place" semantic lexemes: club, theater;

- "Thing" semantic lexemes: magazine, paper, newspaper, pen;

*Later, it is seen that this **newspaper** is published regularly in a timely manner. The goodness of the **papers**, the openness of the **letters** are the first among our newspapers in terms of picture appearance (Cholpon, "What is literature").*

In this play there is also a complex form of the word magazine:

*There will be something called a magazine, a set to write down the deep-rooted issues you mentioned! (Cholpon, "What is literature")* This lexeme is currently used in the plural form.

*What is called a **pen** is not like a tongue. It is made of either reed, or iron, or wood (Cholpon, "What is literature").*

"Process" semantic lexemes: assembly;

*Geography is a **scientific** book, not a storybook (Fitrat, Debate).*

It seems that most of the semantic lexical units of "science-enlightenment" consist of assimilation lexemes, many of which are seen as Arabic assimilations.

Without knowing how the theory and practice of educating the younger generation has evolved, the problems of educating young people as full-fledged human beings cannot be solved scientifically. This is a scientific-theoretical, philosophical-educational fact proved by our ancestors.

Enlightened scholars such as A.Qodiriy, A.Fitrat, A.Cholpon, M.Behbudi created not only scientific and enlightenment works, but also artistically mature and influential works. These works are widely studied today by Uzbek philologists.

“Poetry is an industrial scene in which language, in particular, the word, can show all its expressive possibilities, as well as its melody, its ingenuity, its ingenuity, its extraordinary attitude. The masterful artists of this scene are innumerable in our millennial literature and can be compared to the eternal bright stars in the clear sky of ancient Movarounnahru Khurasan ”[4, 4].

In particular, such bright stars as Cholpon and Fitrat can be included.

Nowhere did the sheet I had been waiting for come out,

Not a single leaf shone like a needle (Cholpon, "Homeland").

Through these lines, the poet reflects the painful, sad days in the destiny of the country, the people, where the word "brightness" means "light", "light".

We are the lions of enlightenment, the land of knowledge,

Let's gather, let's open the right paths for the Turkish people (Fitrat, "To the land of teachers").

The poet appreciated the actions of the brave, selfless people in the path of enlightenment, science, by connecting the words of enlightenment, the lion with the words of knowledge, the words of the earth.

Any practical result begins with an in-depth study, a full understanding of the essence of certain concepts. One of the researches in this direction is the semantic study of semantic lexical units "ilm-ma'rifat" in the Uzbek language. The study of semantic lexemes "science and enlightenment" on the basis of internal semantic divisions, syntagmatic features, as well as features related to historical development, has become an important issue in linguistics today.

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## FORMATION OF TERRITORIAL TRANSPORTATION NETWORK FOR OPTIMIZATION OF LOAD FLOWS IN THE REGION

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### ABSTRACT

*Modernization and further development of production, technical renewal and diversification, requires the widespread introduction of innovative technologies. Modernization and further development of production requires, accordingly, the expansion of capacity and efficiency of transportation of all elements of the transport network, technical and technological means. The article provides a general scheme for the formation of a multi-network of public land transport in Surkhandarya region. Based on the criteria of optimality in solving the problem. It is shown that the solution to the problem of optimal distribution of future load flows in this network can be obtained on the basis of a computer program.*

**KEYWORDS:** Transport, Logistics, Supply, Automobile, Railway, Network, Multisectoral, Development, Road Scheme, Optimal, Criterion, Cost, Application, Category, Freight Flow.

### INTRODUCTION

Surkhandarya region is located in the southernmost part of Uzbekistan, bordering the Republic of Tajikistan in the northeast, Kashkadarya region in the northwest, the Republic of Turkmenistan in the west, and the Republic of Afghanistan in the south via the Amu Darya. Geographical location has the potential to create a new promising southern alternative transport corridor with access to the ports of Iran (Bandar-Abbas, Chahbahar) and Pakistan (Gwadar, Karachi) in transit through Afghanistan. The area of the region is 20.1 thousand square km, which is 4.7% of the country's territory, according to official statistics, the population as of January 1, 2018 was 2513.1 thousand people, which is 7.5% of the population. The population density of Surkhandarya region is 125 people per km<sup>2</sup>, in our country this figure averages 74.3 people per km<sup>2</sup>.

Population growth requires the supply of products to domestic and foreign markets, and the development of transport and logistics is necessary to reduce their cost. A key factor in the development of transport and logistics is the level of demand for transport in the region, ie a well-developed economic infrastructure.

The overall assessment of the level of transport capacity of the area is based on the indicators of the average length of roads ( $S$ ) per 1000 sq. Km area ( $N$ ) and 1000 population ( $L$ ) (Table 1). A separate analysis of the density of the transport network of the regions on these indicators showed that it is possible to draw conflicting conclusions about the level of their transport coverage. At the same time, although the territory and population of each region are the national wealth of the state, it does not fully reflect its economic potential. Therefore, [1] in his scientific works recommended the use of integral indicators in assessing the level of transport coverage of the regions.

$$Y_{\pi} = L / \sqrt[3]{SNB},$$

there - gross domestic product, billion sums.

In the article, 1 km of road is conditionally accepted as 0.12 km of railway in terms of traffic speed.

A highly developed and efficient transport system is seen as a key factor in creating logistics centers and attracting investment.

[2] The author of the article noted that the province of Silesia differed in terms of transport between the Polish regions as a result of further development and constant renewal of its high-speed road network. identified. At the same time, logistics companies are trying to place their investments in these areas in order to make the most of the ideal conditions.

The Republic of Uzbekistan has a comprehensive transport system that provides for the transportation of goods and passengers inside and outside the country, economic ties with near and far abroad. Particular attention is paid to the development of transport infrastructure, primarily roads and railways [3].

**TABLE 1 INDICATORS OF THE LEVEL OF TRANSPORT COVERAGE OF THE REGION (AS OF JANUARY 1, 2019)**

Region	The length of trans-network		Density of transport network, per 1000 sq.km area (S) and per 1000 population (N)						Integral level of providing transportation
	Railway, km	Way, thousand, km	Railway			Highway			
			L/S	L/N	$L/\sqrt[3]{SNB}$	L/S	L/N	$L/\sqrt[3]{SNB}$	
Surkhandarya region	419	2869	20,8	0,17	4,0	142,7	14	7,5	7,3

The growth of the manufacturing sector in the region of great practical and strategic importance, the rapid formation and operation of joint ventures require the development of technical and technological capabilities of the transport system of the region, and various vehicles and

industries to meet the needs of consumers. . To do this, it is necessary to address such pressing issues as the development of transport, network and methods of road and rail transport, which are the main in the region, the optimal distribution of freight flows in the region's transport networks and the optimal development of the transport network itself. The land transport system plays a key role in the economic life of Uzbekistan. Because its geographical location consists of land.

[4] In the article, the main characteristic of the transport system is its provision. Provision is determined by the geographical location of the area (district, city).

The purpose of the article is to develop a methodology for the development of freight flows in the region with the effective use of land and road transport and network, as well as their development in accordance with the growth (dynamics) of future freight flows.

The issues of optimal placement and development of transport communications of the economic zone or region have always been in the focus of scientists and experts. In the previous scientific works [5,6,7], the problems of finding a rational option for the development of the transport network are given in general terms. Determining options for future development of the transport network requires in-depth theoretical knowledge and experience, as well as engineering developments.

The optimal plan for the development of the transport system should fully meet the transport needs of the economy and the population, while minimizing all costs associated with the use and development of vehicles and networks. The criterion of this issue should reflect all the aspects that affect the optimal development plan of the productive forces.

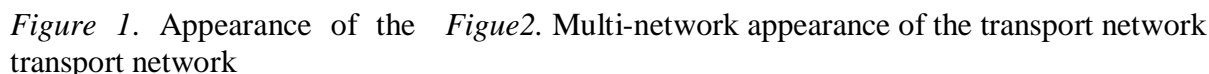
In order to master the emerging traffic volumes in the future, the capital will need additional capital investments to carry out the appropriate freight flows and increase the carrying capacity of vehicles. In assessing the cost-effectiveness of the distribution of freight flows between modes of transport, the cost-effectiveness of operating capital is compared with the cost of additional capital in the development of technical equipment of vehicles and networks. In doing so, the criteria for assessing the optimality of the plan take into account the operating costs associated with and independent of the size of the movement in the process of transportation of goods and the necessary capital investment to increase the capacity of sections. This adopted figure, in our opinion, is more in line with the optimum of production.

At the same time, it should also be taken into account that the change in additional costs is not linear in nature. Due to this, the ratio of differential costs, ie additional costs, to the increase in load current was accepted as the criterion of optimality.

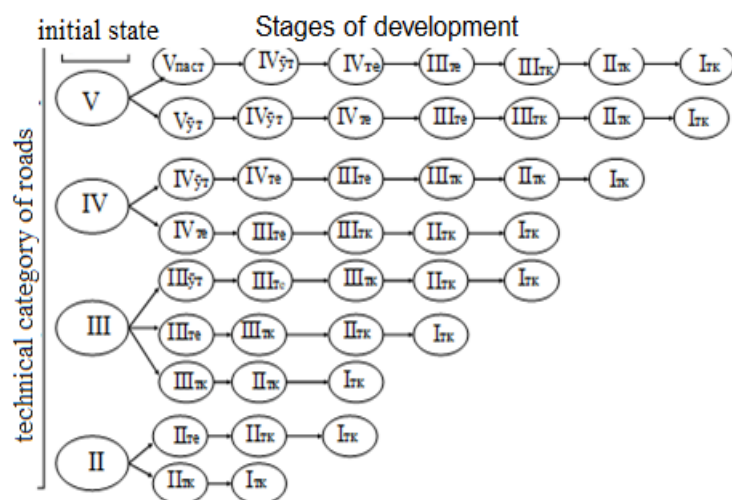
The article discusses the development of a transport network that includes two modes of transport. Therefore, the optimization of the cargo flow is carried out in the extended single surface transport multimode. A single transport multinational network differs from a normal network in that it has several transport sections and additional (fictitious) nodes. It is created in the following order. The available points of each type of transport (in terms of sending, receiving, economic-technical, capacity and other indicators) are shown as nodes of the graph.

Let the area of the transport network consist of two types of transport - rail and road (Figure 1), which is shown in the multitask (Figure 2).

From point 4 to point 1 (Figure 2) 22 units of cargo should be required.



For a single-track railway line, the  $P=O$  stepwise gain can be assumed as follows [5,6]:



Type of cover: TK-improved capital; TE-improved light; ȳT-passing, lov.

**Figure 3. Phased construction of highways**

The throughput of two-track lines can be increased as follows, for example, by extending (*DU*) the receiving-sending routes or by electrifying the line (*DE*).

Adoption of road section development schemes was based on the following considerations: each stage of road section development means either increasing the road category, or improving the pavement type, or improving both the road category and the pavement type at the same time. Now we move on to determine the cost characteristics of transportation in the multimodal transport network of the region.

**Cost characteristics of the arcs of initial-final operations.** The cost of the arcs of the initial-final operations of road transport consists of the costs of the following operations:

- Daily car maintenance (DCM);
- Travel the distance to the gas station;
- Loading and unloading operations and their waiting time;
- Preparation-final operation;
- Time spent on registration of transport documents (if it is not combined with cargo operation);
- On the way from the palace to the first loading point, return the vehicle from the last unloading point to the palace (starting distance);
- On shunting operation during loading and unloading operations.

For motor vehicles, the cost of the initial ( $C_{\text{oa}}$ ) and final ( $C_{\text{ca}}$ ) arcs is calculated (Figure 2). In order to reduce the volume of calculations for the formation of a single transport multi-network in Surkhandarya region, the following average values of the parameters were adopted:

- Driving time - 10 hours;
- A vehicle capable of carrying an average load;

a) extension of receiving and dispatching trains at some existing points in order to increase the weight standards of trains, (*Y*),  $P = 1$ ;

b) construction of an additional two-track track with a central dispatcher to organize uninterrupted movement at train stops, (*B*),  $P = 2$ ;

c) construction of the second main road,  $P = 3$  i.e. *O-U-B-D* system.

- Average category of transported cargo -1.0;
- increase mechanized (one lift weight from 1 ton to 3 tons);
- Zero distance - 10 km.

**Determining the cost characteristics of the initial-final operation of the railway.** One of the peculiarities of the railway is that most of the bulk cargo sent from it does not appear directly at its stations, but is transported from other addresses, and the cargo arriving at the station must also be transported again. Therefore, the cost of the initial-final operation arc on the railway includes, in addition to the costs of the initial-final operation of railway transport, the costs of initial-final operations of road transport in the implementation of freight to and from the station.

In this regard, the following considerations should be followed in determining the cost characteristics of the arc of initial ( $C_{\bar{om}}$ ) and final ( $C_{cm}$ ) operations:

1. We accept the cost of the initial-final operation from the "Costs of the initial-final operation".
2. The average distance of cargo transportation to and from the station is about 16 km.

**Optimal distribution of freight flows in the multi-network of road and rail transport.** As noted, the transport network and transportation dimensions are the primary data in solving the problem of load flow distribution in an expanded network. Transportation dimensions, i.e., the production plan and consumption of different cargoes at specific points, or the transportation plan for all cargo volumes, can be presented in the form of a freight matrix, where the data is displayed for each shipper and receiver.

The problem of optimizing load flows can be posed and solved in different options. In the first option, the optimization of load flows involves the distribution of them to networks with limited capacity, which is associated with solving the problem of a large number of products. The practical solution of such a problem poses great difficulties, first of all, the difficulty lies in the very large volume of work on the collection of initial data.

In the second case, each row of the load matrix can be considered as a "different load" in its category with a single-point production. Then the issue of optimizing the flow of cargo in the network is brought to the issue of creating a convenient road system. This will make it easier to distribute from one point to all the remaining points along these arcs to the next shipper and receiver. This reduces the problem-solving time, as well as allows the shipper and receiver to adjust the shipping matrix to a more convenient size. Due to this, the load volumes are given in the form of a matrix. If the node in the network is considered "complex", ie several types of transport are combined in this node, then production volumes ( $B$ ) are considered to be concentrated at the "starting" point, and consumption volumes ( $O$ ) at the "final" point.

The distribution of freight flows in the multi-network of surface transport is carried out in an approximate way, taking into account the limited capacity of the sections.

The question is put in the following context. It is necessary to determine the traffic density in each arc ( $\Gamma_{ij}$ ) along with the approximate distribution of the load current in the network as soon as possible. In this case, the following criteria must be met:

$$F = \sum_{ij}^m C_{ij} \cdot \Gamma_{ij} \quad F = \sum_{st} C_{st} \cdot X_{st} \rightarrow \min \quad (3.32)$$

The idea of this method is as follows. A convenient road system is constructed,  $S_t$  the load-carrying capacity of the direction is determined, ie

$$\mu(S, \dots, i, j, \dots, t) \quad d_{st} = \min d_{ij} \text{ as.}$$

Along with the transmission  $X_{st}$  (distribution) of the next load in the row along the arcs of convenient roads, the carrying capacity of the arcs passing this load is reduced by the same amount of load. The bow closes when fully satisfied and is excluded from the next calculation. After each closed bow, a convenient road system is re-established. The solution of the given problem is obtained using the program developed on the basis of the block diagram of the algorithm of approximate distribution of load currents.

Using this method, the issue of development of a single transport network in Surkhandarya region was solved on the basis of accurate data (the solution and analysis of this solution will be presented in future publications). Surkhandarya region has a multi-network of surface transport (the first attempt in planning practice), the multisectoral network consists of 65 nodes and 204 arcs (Figure 2). The order of the network nodes is shown in a circle. Prospective inter-node correspondence is given in the form of a cargo matrix. This table is based on official static data.

Development of the existing network is required to master the planned traffic volumes: the sum of capital investments ( $E = 0.12$ ) and operating costs should be kept to a minimum for the optimal option. To this end, we define the scheme of development in an expert manner as follows:

a) for the railway transport line –  $O-U-V$ ,  $O-U-V-D$

In such cases, giving large values of bandwidth in the first stages of problem solving in computer technology does not contradict the condition of the problem. If such an arc has a large current relative to its actual carrying capacity, the arc must be moved to the next stage of development.

b) for the road section (Figure 3).

The dynamic problem of development of the land transport network can be solved by solving it in pieces of time. In this case, the solution of the dynamic problem is a series of static problems. The idea of this method is as follows. A convenient road system is constructed, the load-carrying capacity of the direction is determined, it is possible to construct a transport matrix: for example, a matrix for 2025, 2035, 2045 is constructed and three static problems are solved for each stage.

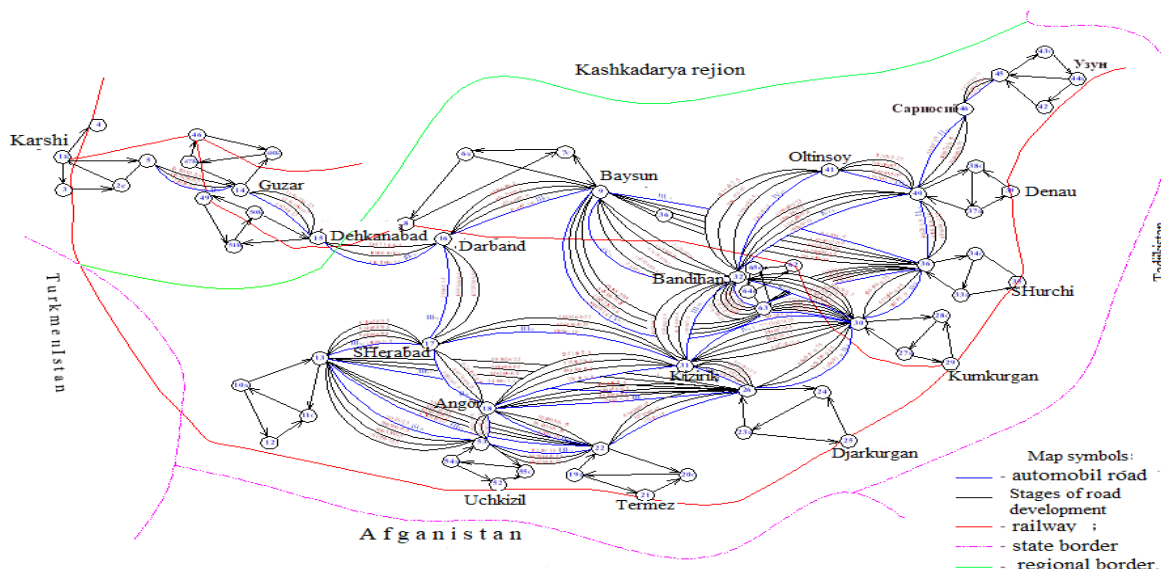


Figure 2. Scheme of multi-network of public land transport of Surkhandarya region

The proposed method should serve as an aid to the designer. If necessary, it can be used to perform other calculations.

The article draws the following **conclusions** on the optimization of the existing transport network and flow distribution in the Surkhandarya region:

- The current distribution of freight flows along the existing transport network was determined;
- a plan for the gradual development of the existing transport network for the development of future freight flows in the multisectoral method;
- It was recommended to implement the existing options for the optimal distribution of freight flows in the developed transport network.

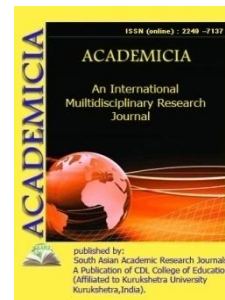
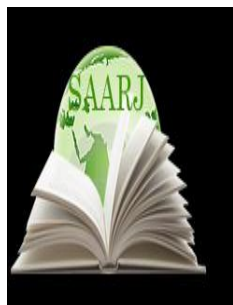
The practical application of the results of this research will allow for the rational allocation of capital resources allocated for the planning, design and operation of promising transport networks in the region.

The obtained results are taken from the research work carried out in the framework of the GNTF practical project №OT-Atex-2018-352 "Optimal development of the regional transport network and the widespread use of logistics principles in the effective management of future freight flows."

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## LEXICAL FEATURES OF THE SPEECH PORTRAIT OF UZBEK MOTHERS AT VARIOUS AGES

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### ABSTRACT

*This article is devoted to the study the lexical peculiarities of Uzbek women in modern society on the relevant role of the mother at various ages. The results analysis of the features of speech portrait of mothers is considered not only at the age of mothers, but also in various life situations. The article presents the structure and content of the linguistic concept of motherhood, the theoretical analysis of motherhood as a social institution, explains the concept of "Motherhood" from the psycholinguistics point of view as well as the sociolinguistic analysis of the speech portraits of the mother.*

**KEYWORDS:** *Motherhood, Woman, Mothers' Speech, Age, Child, Speech Portrait, Communicative Behavior, Psycholinguistics, Sociolinguistics, Life Situations, Uzbek Mothers.*

### INTRODUCTION

The phenomenon of motherhood has been repeatedly considered and studied by scientists-psychologists, philosophers, geneticists. Motherhood is regularly approached from various sides, trying to explain its essence, to understand the psychology of communication between mother and child. On the one hand, the phenomena is inexplicable, on the other-accessible and understandable. The concept of speech portrait does not find a universal definition. So, in the linguistic dictionary of O.S.Akhmanova and D.E.Rozental the definition of this terminological combination is given only in the literature context as a synonym for the term "speech characteristics". According to Rozental speech portrait is the selection of words and expressions specific to each character. In some cases words and syntactic constructions of book speech are used for this purpose, colloquial vocabulary and row syntax and etc., as well as "favorite words" and speech patterns the addition to which a literary character with one or other side (Rozental,

2001). Akhmanova defines the term speech portrait as a special selection of words, expressions, turns of speech and etc., as a means of artistic depiction of the characters in a literary work (O.S.Akhmanova, 2004).

Motherhood is a social status that plays an important role in our society and is focused on the life and upbringing of the children. One of the important aspects of motherhood is the attitude and care of the baby. Mother's speech is one of the interesting objects of research, not only in order to gain a new social status, but also in order to cause psychological and radical changes in the female worldview.

Child's life is like a clear sheet. What to write on it is on the parents hand. What the child become in the future depends on parents and members of family (J.Khasanboyev, 2006). In particular a speech behavior of mothers towards the child is important. The relationship between mother and child was studied by many sociologists and psychologists. However, the lexical features of speech portrait of Uzbek mothers in relation to the child have not been investigated yet.

The study of interaction in dyad "mother-child" is an actual area of research, since maternal speech is considered the main source of information about the language system of mother tongue. In linguistics most often this interaction is studied from the position of learning a language and the formation of socially relevant behavior models in a child (Boyko E.S., 2001).

In the dictionary of linguistic terms by T.V.Jerebilo "mothers' speech" is describing as the language acquired by a child in a process of primary socialization, which is also an instrument of this socialization. Most often this it the language of his mother. It is no coincidence that in many languages there is such a notion as "mother language"(T.V.Jerebilo, 2015).

Important characteristics of normal mental development of a child are the characteristics of his speech, vocabulary, mastery of grammatical constructions. According to the peculiarities of speech, one can judge the ability of a person to reflect not only the external, perceived properties of objects, but also internal, significant correlations and relationships. The child's speech develops only in interaction with the people around him, the main figure of which is the mother (A.Gudzovskaya, 2018).

The scientist Catherine E.Snow on her research where mothers' speech to children learning language was analyzed claims that the assumption that the language acquisition is relatively independent of the amount and kind of language input must be assessed in light of information about the speech actually heard by young children. The speech of middle-class mothers to 2-years-old children was found to be simpler and more redundant than their speech to 10-years-old children. The mothers modified their speech less when talking to children whose responses they could not observe, indicating that the children played some role in eliciting the speech modifications. Experienced mothers were only slightly than nonmothers in predicting the speech-style modifications required by young children. This findings indicate that children who are learning have available sample of speech which is simpler, more redundant, and less confusing than normal adult speech (C.E.Snow, 1972).

The present study examined the primary hypothesis that various aged Uzbek mothers use various vocabulary towards their children in different situations. Research shows that mothers who are older do not show their emotions to the child and remain quite calm, so they are not

prone to using different words or phrases in communication with their children in various life situations, while younger mothers actively use a huge number of various words and phrases to express their feelings. Further we will analyze lexical features of the speech of Uzbek mothers according to the age of mothers.

## MATERIALS AND METHODS

In order to study this research were used the dictionaries that include linguistic and sociolinguistic terms.

### Procedure

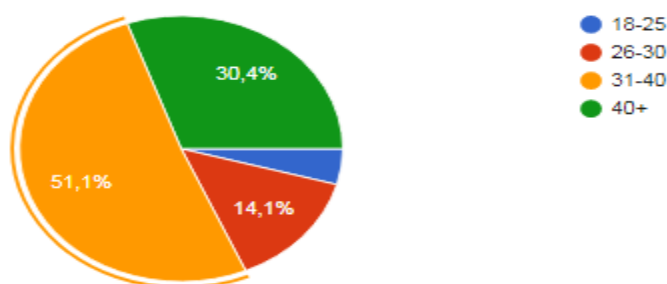
The anonymous questionnaire designed for analyzing speech portrait of Uzbek mothers in modern society by us shows the lexical analysis of Uzbek mothers speech and methods of communication or use of certain words or phrases depends on factors such as social status of mother, marital status, age of the mother or child or different life situations.

*Data collection* - Our questionnaire designed to study mothers' speech includes following questions:

- *What kind of kind words do you usually refer to your child?*
- *What words or phrases do you usually use to praise your child when he/she delights you?*
- *How do you usually speak to your child when he/she angry you?*
- *What words do you usually speak to your child to soothe your child when he/she is sad?*
- *What words or phrases do you usually use when you want to ask your child to do anything?*

*Scoring of materials*- This research was tested in the form of 100 Uzbek mothers of various age and more than 350 words and phrases were analyzed.

### Measures



According to the research we can highlight that middle-aged mothers (31-40) made up the main part of our participants in our questionnaire, while young mothers were included approximately a quarter.

Different aged mothers in different life satiations speak to their children in various ways:

Age	Dialogue vocabulary			
	Words to praise a child	Words when a child make you angry	Words to soothe a child when he/she is sad	Words to ask a child to do smth.
18-	Молодец (good)	Аҳмоқ (stupid),	Жоним (my soul),	Илтимос (please), асалим

25	job), умница, умняшечка (good girl), зўрсан (you are the best), яхиш хам сени эсим йўғида туққан эканман (it's good that I gave birth to you when I still had no mind), бубуська (bubuska), totosh(totosh). ..	аҳмоққа ўхшама(don't be like a stupid), қайсарчам (caprice), попоч (poroch), хафа қилма мени (don't make me sad), маймун (monkey)...	асалим (my honey), эркатойим (erkatoim), it's ok, don't worry, ишим йўқ (don't mind about my child's problem)...	(my honey), исми билан (by telling his/her name), давай! Қил! (Go ahead! Do it!)...
26-30	Молодец (good job), қуёнчам (my young hare), ақлигим (smarty), чиройлигим (my beautiful), келажаким (my future), қувончим (my joy), дўндиқчам (dundikcham)...	Ярамас (yaramas; bad boy), чўчқа, маъсулиятсиз (you are irresponsible), ёмон бола (bad boy), дангаса (you are lazy), паразит(parasite), эси йўқ (stupid)...	Ты же мой герой (you are my hero), тойчоғим (you are my foal), мен сени жуда яхиш кўраман (I love you very much), орлёнок мой (my eaglet), ээ ўғил боламисан ўзи?(are you a man or not?)...	Мени чаққон қизим (my nimble girl), ақлигим мени (you are my clever), ширин қизим (my sweetie girl), полвон ўғлим (you are my hero), илтимооооооос(pleaaaaase)...
31-40	Қандолатим (sweetie), сени жуда яхиш кўраман (love you very much), раҳмат жоним болам (thank you my baby)...	Асабни буздинг (you play on my nerves), ақлингни йўқотдингми?(you lost your mind?), тарбиясиз (ill-mannered), одам бўлсанг ўзингга фойда (if you become a good man it will be in your favor)...	Хеч нарсани ўйлама(Don't think about anything), эътибор берма(don't pay attention), сени қўлингдан келади(you can do it), она қизим (она qizim), қақачам(qaqacham), қўй энди аразни йиғиштир сенга ярашмас экан(Oh common, stop pouting, it doesn't	Аҳамият бериб тингла (listen to me attentively), исмига жон қўшимчасини қўйиши билан (by adding suffix "jon" to his/her name), гапни қўпайтирма (don't trifle), асосан буйруқ оҳангида мурожаат қиламан (mainly address with tone of command), шуни қила оласанми? (Could you do it? Please?)...

			<i>suit you</i> )...	
40 +	Баракалла (good job), болажоним (my child), онам (my mom), ойижон (my mother), барака топ (thank you), қуёшим (my sun)...	Бошқа унақа қилма (don't do it again), сен хато қилдинг (you did a mistake), нотўғри иш қилдинг (you made a wrong action ), яшагур (live forever), бошқа қайтарилмасин (don't do it again), подшоҳ бўлгур(make you kink)...	Жон болам(you are my soul), кучли бўлидинг учун синов бу(this is a test for you), гиргимтон(girgitto n), ты можешь больше чем думаешь(you can do more than you think to), хафа бўлма(don't take an offense) мен ёнингдаман(I am with you)...	Болам, бўшаганигда қилиб бер (do it when you will be able to), сенга неча марта айтдиш керак?(how many times should I ask you to do it?)...

## RESULTS

The analysis shows that mothers' speech characteristics in different life situations are various according to their ages. There are significant differences in using dialogue vocabulary with a child amongst these four aged types of mothers. Mothers at age 18-25 and 26-30 are characterized by using simple, catchy and short words. It demonstrates not only positivity but also a free attitude to raising a child. In addition, mothers of these age categories often use words in Russian, what is characteristic of Uzbek mothers in modern society. Similarly, the lexical features of the Uzbek mothers who are older (31-40 and 40+) not significantly differ from the speech style of younger ones. It only to be marked that the older mothers are more polite and different in their communicative style. However, they focus more on to be strict with their children. It should be highlighted that in the situation when a child make them angry they are approximately expressed the same way as representatives of young generation of mothers. One of the distinctive features of these mothers is that they speak to their children in command tone, what proves again strictness and exactingness of older mothers.

Today, while still being perceived as the main female realization, the role of the mothers is scandalized and controlled by society. Women often associate caring for children with the fulfillment of their desires, the achievement of the expected status, the joy of their own need, pride in the success of the child, and involvement with the parent community. However, motherhood also includes conventional ideas on the proper fulfillment of family roles, which are regulated by numerous authorities. That is, motherhood can be considered as a separate social institution – a system of controlling authorities guided by the ideology of motherhood – a set of unspoken rules of maternal behavior. In society a mother is expected first of all, it will focus on meeting the interests and needs of a child (Shadrina, 2017).

## DISCUSSIONS

The analysis of this illustrates specifications of speech portrait of Uzbek mothers. The comparative analysis of speech and communicative behavior of Uzbek mothers at various ages are not identical and not differ completely, in contrast, the lexical peculiarities of all four aged types of Uzbek mothers which are mentioned above are derived from their ages first of all, worldview, social status and mentality. Besides, there are studied lexical features with communicating with a child in different life situations.

In our research there are given vivid examples of words and phrases including their translations into English or definitions of non-equivalent lexis in Uzbek, which determine the specification and uniqueness of Uzbek language.

The research work we have conducted is connected with the field of sociolinguistics, psycholinguistics and linguoculturology. The concept of “Motherhood”, its’ important features, the idea of social status in sociology, and the role of mothers in society, in general, the typology of “Speech portrait” and the notion of social role are the one of the most common research issues for the scientists.

## CONCLUSION

Motherhood is the sacred beginning of life and the attitude to it should be appropriate. Every person enters into his earthly life through the mother, and the memory of the intrauterine existence in each of us remains in the deep layers of our soul. This is not the memory of the consciousness; it is the memory of self-perception of the baby in the fertile habitat of the maternal organism (Gamperz J.J, 1990).

Speech activity of mothers directed to a child after his birth is appeared in two aspects: by means of verbal speech and with assistance of subject-code speech elements, which is actualized in different life conditions. Mother speech is becoming a study subject for both native and foreign scientists. However, studies reflecting interaction peculiarities in concept “mother-child” mostly reveal a didactic aspect of this interaction aspect, than introduce a complex characteristics of speech and linguistic manifestation of mothers’ social role, age and what set conditions for actuality of this article.

The purpose of the study was to investigate and make a comparison of the lexical features of Uzbek mothers’ speech activity. The analysis show that mothers at various ages in modern Uzbek society use quite different speech style towards their children. In addition, we claim that not only different life situations but also social status of the research objects influence to the speech behavior of mothers.

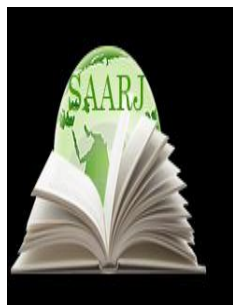
The study explores the concept of motherhood and lexical features of mother's speech at different ages, as well as explores the communicative features of women's speech in the social role of motherhood. The mother's speech is reflected in the specifics of speech and as a linguistic model of child rearing, as well as linguistically analyzes the speech and communicative behavior of the mother.

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## USING THE CAPABILITIES OF VIRTUAL LABORATORIES IN THE EDUCATIONAL PROCESS

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### ABSTRACT

*Given the current situation with the mental and physical condition of laboratory equipment, an alternative to using virtual learning in automation laboratories instead of traditional methods of teaching students is being considered. The advantages and opportunities of using virtual and distance learning in real conditions are shown.*

**KEYWORDS:** *Information Technology, Virtual Laboratories, Distance Learning Process, Advantages, Opportunities, Dynamic Model.*

### I. INTRODUCTION

Information support of the modern educational space should be at a level that would allow the teacher to solve all the educational tasks facing him quickly and effectively. Information technology allows you to find a specific pedagogical situation. New information technologies in education in General and in teaching history, including, can be applied by the teacher at almost all stages of the educational process, in particular: when preparing theoretical material, when creating information and methodological support for the discipline, when developing demonstration materials for classes, when testing the knowledge of students, for collecting and analyzing performance statistics. This list can be modified and expanded by the teacher in accordance with the specifics of teaching activities.

### II. LITERATURE REVIEW

Initially, before the advent of computers, the laboratory of natural Sciences had a single form of organization: the real object under study and the necessary auxiliary equipment, such as a set of control and measuring devices. All research was done "manually". The advent of computers and

the invasion of scientific activity significantly facilitated the work of scientists, taking the most time-consuming aspects of research on themselves. Today, computer technology and scientific activities are inseparable parts. Experiments can be performed using real or virtual instruments and devices in real or virtual laboratories with a real object under study or its mathematical model. At the same time, various configurations of these features are possible.

When the object under study is actually present in the experiment, and not its mathematical model, usually the main components of the workplace are the object of research, a set of control and measuring devices, auxiliary equipment, and a personal computer. However, often control and measuring devices and auxiliary equipment occupy a significant part of the total cost of the laboratory stand, sometimes many times higher than the cost of the research object. And due to certain circumstances, many organizations are not able to equip their laboratories according to this scheme. Therefore, researchers automate control and measurement devices and auxiliary equipment through application software. Thus, the components of the virtual stand are reduced to the object of research and a computer with the necessary software.

However, even full automation of control and measuring devices and auxiliary equipment does not hide serious material costs for the organization of a laboratory stand. Therefore, in the end, in many laboratories, the laboratory bench degenerates into a workplace where you can conduct experiments only with a mathematical model of the object being studied. To organize the experiment, you only need a computer with the necessary software.

The laboratory can be organized in three ways, regardless of whether the object of research is present in the experiment or is replaced by a mathematical model: Autonomous, based on a local network, or via the Internet.

The choice of a tool for the development of a virtual laboratory is an important step. It will determine the quality of the product being developed, the time and effort spent by the developer on implementing the program code. Therefore, the tool must meet a number of requirements that correspond to the task at hand.

The goal of the project is to develop not only an Internet version of the virtual lab, but also a local one, so that even those users who do not have an Internet connection can work with it. You also need to consider the class of tasks that is being solved in the virtual lab.

The development and creation of virtual laboratories are primarily due to the development of distance education. However, there are a number of disciplines in which laboratory research involves significant expenditures of educational institutions on machines, tools, blanks, reagents, etc. In addition, as practice shows, it is not always possible for students to perform laboratory work correctly the first time, after theoretical training. Often for a successful outcome, you need to conduct the experiment several times, then the costs can significantly increase. Virtual laboratories are also used in cases when an experiment occurs on an inconvenient scale of space and time, is impossible, unique, unattainable, and so on. In these cases, such laboratories become necessary in order to make it possible to conduct the educational process at a much lower cost, or they will save money by teaching students first on special virtual simulators, for their subsequent transition to real expensive laboratory stands. Physics classes at the University are characterized by a constant lack of time and the complexity of using demonstration material and laboratory equipment. Special difficulties arise for students who study in absentia and remotely. Distance

learning requires students to work hard and have a certain initial level that allows them to use modern computer technologies.

A virtual laboratory is a software and hardware complex that allows you to conduct experiments without direct contact with a real installation or in the absence of one. In the first case, we are dealing with a so-called laboratory installation with remote access, which includes a real laboratory, hardware and software for managing the installation and digitizing the received data, as well as communication tools. In the second case, all processes are simulated using a computer.

Electronic educational resources based on modern computer three-dimensional simulation of physical processes and phenomena are implemented in the form of multimedia educational and scientific laboratories or virtual simulators. The novelty of virtual simulators technology is justified by the use of modern computer modeling tools and the active introduction of information technologies in the field of education.

### III. DISCUSSION.

Let's formulate the main reasons for using virtual simulator technology:

- existing laboratory stands and workshops are insufficiently equipped with modern devices, devices and devices;
- most laboratory stands and training workshops were put into operation after decommissioning, do not meet modern requirements and are outdated, which can distort the results of experiments and serve as a potential source of danger for students;
- laboratory work and stands require annual improvement, which leads to additional financial costs;
- in areas such as construction materials science or physical chemistry, in addition to equipment, consumables are also required-raw materials whose cost is quite high. Of course, computer hardware and software are also expensive, but the versatility of computer technology and its widespread availability compensate for this disadvantage;
- modern computer technologies allow us to observe processes that are difficult to distinguish in real conditions without using additional technology, for example, because of the small size of the observed particles;
- virtual simulators make it possible to simulate processes that are fundamentally impossible in the laboratory;
- virtual simulators allow you to get into the intricacies of processes and observe what is happening on a different time scale, which is relevant for processes that take place in a fraction of a second or, on the contrary, last for several years;
- safety – is an important advantage of using virtual laboratories in cases where there is work, for example, with high voltages or chemicals;
- due to the inertia of work or processes in some laboratory installations, it is difficult to perform repeated analysis or verification in the time allotted for them;
- students' acquisition of sufficient skills and experience in a particular field requires the need to repeat classes, which is not always done in order to avoid frequent breakdowns of installations and additional costs for consumables;

- virtual simulators are a highly effective method of training, due to the low level of abstraction of the educational material contained in them, in other words, the virtual learning environment in multimedia educational and scientific laboratories simulates real conditions as much as possible.

With the use of virtual laboratories, there is a need to introduce a new, effective and accessible pedagogical method that helps to solve the following tasks:

- initiate sufficient interest in students along with accessibility and increase the activity and independence of their academic work;
- attract the attention of students, taking into account their psychological characteristics and improve the perception of educational material through multimedia;
- ensure full control of students' learning;
- facilitate the process of repetition and training in preparation for exams and other forms of control;
- relieve the teacher from the routine of monitoring and consulting;
- use extra-curricular time for studying in the form of individual homework assignments;
- introduce distance learning.

Virtual laboratory stands can be used:

- when reading lectures as illustrations;
- for professional development of specialists;
- to simulate the operation of various devices in operating modes;
- performing individual tasks and laboratory work, keeping records of student progress, their rating;
- implementation of objective control over the quality of the student's knowledge;
- distance learning. Virtual laboratory stands are being developed for the study, in which the dynamics of processes in automation and mechanic systems is implemented through computer animation. Initially, all the processes of forming the concepts of defining features, their analysis and synthesis, and the development of animation displayed on a computer display in certain sequences are developed by a specialist. The multimedia database contains simulated dynamic models of devices and objects in which physical parameters change and real technological processes take place. Simulation dynamic models are developed on the basis of real systems and objects in which physical processes occur and physical parameters change in real conditions in accordance with quantitative and qualitative characteristics. Basic requirements for virtual laboratory stand:
  - The dynamic model of the technological process should take into account the mutual influence of the main real parameters;
  - Application development tools should be simple and flexible; - the interface should be as close as possible to real physical processes and parameters;

- There should be options for different situations and the possibility of changing the defining parameters;
- it should be possible to evaluate the student's actions and indicate incorrect or erroneous actions. When creating stands, modern multimedia technologies should be used to present the necessary educational material in a convenient form for learning and assimilation. For simplification, you can also use video materials of real automation devices with demonstrations of their operation in various modes or physical processes occurring in them. To measure parameters, you can show control points, connection methods, and measurement tools. Specify the algorithms and features of the devices, algorithms for checking their serviceability and Troubleshooting.

#### IV. CONCLUSION.

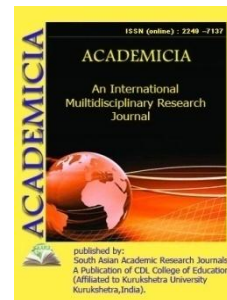
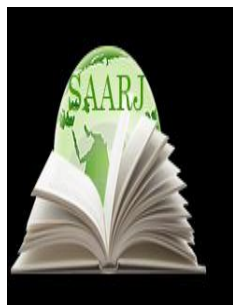
Thus, taking into account the above, we can highlight the following positive aspects of the use of virtual laboratories:

- Interactivity and accessibility, allowing you to perform laboratory and practical work in a frontal way;
- Independence from specific laboratories, availability of measuring tools, stands and equipment;
- No need to purchase expensive equipment, measuring instruments and more compact laboratories in terms of area;
- Ability to model various processes that can take a long time to implement in real laboratories;
- The ability to monitor the ongoing technological processes in real time at certain stages and experimental research;
- Ability to change various parameters in wide ranges and fix them;
- Lack of errors in the measurement of the parameters and errors when connecting;
- No need for calculations, graphs and tables;
- ensuring high safety during laboratory and practical work;
- Use of virtual laboratories for distance learning, as well as for independent work. The main drawback when using virtual laboratories is the lack of development of practical skills in working with real automation devices, determining control points for measuring signals and using measuring tools.

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## THE PERSPECTIVES OF THE HERBAL TERPENOID APPLICATION IN YIELD INCREASING OF AGRICULTURAL PRODUCTS

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### ABSTRACT

*The given article presents the results of the biological experiments in rice-growing and cotton growing, growth regulating activity of the ecologically safe raw of herbal terpenoids. The current state of theory and practice shows that the class of terpenoids, including sesquiterpene lactones, which are one of the largest groups of secondary plant metabolites, have a wide range of biological activity, and are environmentally harmless to humans and the environment. Cotton seeds of varieties C-6524, C-6532, C-9070, etc. were treated with a preparation of various concentrations (2,0; 1,5; 1,0; 0,5%) and were sown in the field. The following indicators were analyzed: seed germination, plant survival, and the degree of development of characteristics that characterize productivity.*

**KEYWORDS:** *Terpenoid, Sesquiterpen Lactones, Rice, Composite, Sagebrush, Mutagen.*

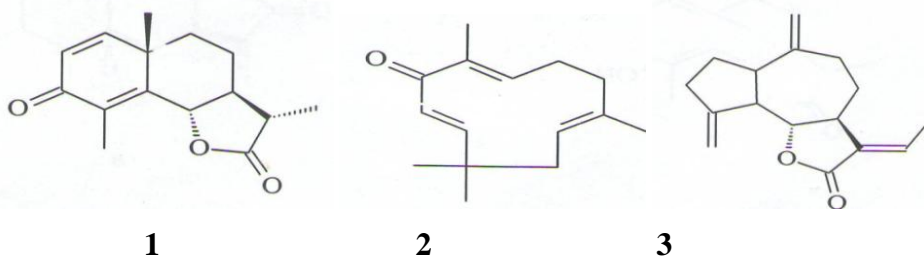
### INTRODUCTION

Modern agricultural development is impossible to imagine without the widespread use of chemical plant protection products. To obtain high-quality and stable crop yields, it is necessary to introduce a modern innovative approach to the introduction of highly effective natural products that meet the modern requirements of technology and environmental protection.

A specific feature of plant growth bioregulators is their ability to influence processes that cannot be regulated by conventional agro technical methods of crop cultivation, such as irrigation, fertilizers, etc. The use of plant growth regulators with a versatile spectrum of action contributes to a significant reduction in the use of plant protection products against diseases and pests. Therefore, a comprehensive approach to the use of bioregulators of plant growth, the creation and use of cheap, non-toxic natural drugs that act in ultra-low concentrations and have both a growth-regulating and immunostimulating effect in the system of other elements of the technology, is very relevant today. This task is relevant for the cultivation of rice, since rice is the staple food and the use of biostimulants of plant growth when caused by pre-sowing seed treatment and spraying of rice crops allows to increase the energy of seed germination, too fast and friendly germination, increase root system development and biomass of plants, leaf area and chlorophyll content, and increase the yield.

Currently, various plant growth stimulants are used in agriculture and they significantly increase the yield of various crops than organic and mineral fertilizers. There are various ways to regulate the growth and development of agricultural crops using natural and synthetic biologically active substances, such as auxins, gibberellins, cytokinins [1]. However, some of these substances are expensive, and others are not widely used due to insufficient stability or relatively high toxicity (for example, auxins). The current state of theory and practice shows that the class of terpenoids, including sesquiterpene lactones, which are one of the largest groups of secondary plant metabolites, have a wide range of biological activity, and are environmentally harmless to humans and the environment.

The growth-regulating activity of a number of isoprenoids belonging to the group of sesquiterpenoids with different types of carbon skeleton is described in [2-3]. The research results showed that sesquiterpenoids  $\alpha$ -santonin (1), zerumbon (2) and C16-guaianolide (3) isolated from various plants increase the yield of rice after one-day soaking of seeds in their solutions at a dilution of 1:10000 compared to the control by 14.17% ( $\alpha$ -santonin, zerumbon) and 7.5% (C16-guaianolide).



Our research has established that the plants are SEM. Asteraceae and Apiaceae of the flora of Uzbekistan are rich sources of biologically active sesquiterpenoids. For example, the above-mentioned  $\alpha$  - santonin, which is used in India as a biostimulator to increase rice productivity, is produced in major quantities by plants of the genus *Artemisia* belonging to the subgenus *Seriphidium* (Bess) Rouy, such as *A. ferganensis*, *A. diffusa*, *A. halophila*, *A. turanica*, *A. terrae-albae*, *A. serotina*, *A. tenuisecta*. These types of sagebrush are the main edificers of plant communities in arid and semi-arid zones of Uzbekistan and form sagebrush pastures on a vast territory, which can be used as raw materials for the production of  $\alpha$ -santonin in the necessary quantities for its use as a growth stimulant.

We also examined the growth activity of some sesquiterpenoids lianolia, Repin, GRAYLINE and artaban, including  $\alpha$ -santonin, selected from plants of flora of Uzbekistan [4].

To consider the growth of stimulating activity, the following method was used. We took an exact suspension of terpenoid, dissolved in a small amount of alcohol and diluted with warm water to a volume in the ratio of 1: 10000. Then, the Iskandar rice seeds were immersed in the resulting solution of each terpenoid for 24 hours separately.

Field experiments were conducted in 5 variants of four-fold repetition in experimental fields of the laboratory of plant protection and Agrochemistry of the rice research Institute (table 2-3). Phenological observations were made on the planted variety of rice "Iskandar". When surveillance established that the average height of plants in the control variant amounted to 10.5 cm, the option of betta-santonin 11.2 cm, in the variant alpha-santonin 11.0 cm, austricin 11.5 cm, and in the embodiment of leukemia in the growth of plants was 9.6 cm

**TABLE-2 DETERMINATION OF SEED GERMINATION IN THE FIELD**

№	Options for experiments	Number of sprouted plants in 1 m <sup>2</sup> of area, pieces	Seed germination %	The growth of plants, cm
1	Control	256	51,2	10,5
2	Betta-santonin	274	54,8	11,2
3	Alpha-santonin	271	54,2	11,0
4	Austricin	281	56,2	11,5
5	Leucomycin	259	51,8	9,6

As can be seen from the data in Table 2 in the control variant, 256 seedlings sprouted in 1m<sup>2</sup> of the area and the field germination rate was 51.2 percent. In the fourth version of the experiment, 281 bushes sprouted in 1 m<sup>2</sup> of area, which indicates 5% more germination than in the control. From these data, it can be seen that biostimulators of plants are of great importance for the germination of rice seeds.

During the study, stacks were taken from areas sown with rice and biometric analyses were performed in the laboratory. On the basis of the analyses it is seen that in the control variant plant growth amounted to 127cm, length of panicles and 25.3 cm, weight of main panicle 1.8 g, weight lateral panicles 0.8 g, and the yield was 55.9 kilograms. In the 2nd variant (betta-santonin) plant growth 132cm, length 27.8 cm panicle, weight of main panicle 1.8 g, weight lateral panicles 0.8 g, yield 69.1 tons, which amounted to 13.2 quintals higher than the control variant. In the fourth variant of field experiments (austricin), the plant growth was 135cm, the length of the panicle was 27.9 cm, the weight of the main panicle was 2.2 g, the weight of the side panicle was 1.0 g. the yield was the highest and amounted to 70.4 centners, which was 14.5 centners higher than the control version. (see table-3).

TABLE 3

№	Variants	The number of plants in 1m <sup>2</sup> , pieces.	Degree of custi tosee	The growth of plants, cm	The length of panicle, cm	Grain weight of one panicle, (average) g		Weight 1000 PCs grain, g.	Biological yield, g	Real productivity, C / ha
						Basic broom	Side broom			
1	Control	240	1,1 2	12 7	25, 3	1,8	0,8	28, 9	69 8	55, 9
2	Betta-santonin	255	1,1 3	13 2	27, 8	2,1	0,9	33, 0	86 4	69, 1
3	Alpha-santonin	258	1,1 7	13 7	26, 7	2,2	0,8	32, 9	85 1	68, 1
4	Austricin	262	1,1 2	13 5	27, 9	2,2	1,0	33, 3	88 0	70, 4
5	Leucomycin	235	1,1 2	13 3	26, 4	2,0	0,9	31, 5	76 3	61, 0

**HCP<sub>05</sub>-2,**

When studying the mutagenic effect of *Artemisia absinthium* (wormwood) extractives on wheat and cotton, mutant lines were obtained. It was found that at different concentrations, the preparation of plant origin "PRP" (the sum of lactones of wormwood) has a pronounced biostimulating and mutagenic activity. Cotton seeds of varieties C-6524, C-6532, C-9070, etc. were treated with a preparation of various concentrations (2,0; 1,5; 1,0; 0,5%) and were sown in the field. The following indicators were analyzed: seed germination, plant survival, and the degree of development of characteristics that characterize productivity. In experimental variants, at concentrations of 1.0 and 0.5%, there is a pronounced stimulation, in particular, for the accumulation of fruit organs on the Bush, an increase in the weight of raw cotton per plant, due to an increase in the number and weight of boxes.

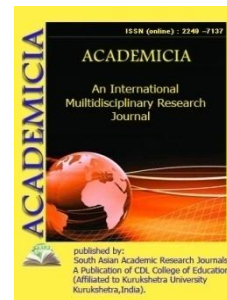
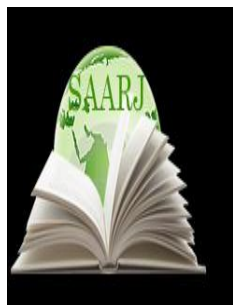
This drug in concentrations of 2 and 1% was used as a modifier for relieving depression when irradiating seeds. For the study, the variety C-6524 was taken, as mutagenic factors – gamma rays Co60 and the drug PRP in concentrations of 1 and 0.5%. the control was non-irradiated seeds, just soaked in water, and the second control – just irradiated seeds.

As a result of research, promising breeding material was obtained in the form of mutagenic lines and varieties. A number of promising mutagenic lines are studied in the laboratory and in nurseries of radiation mutagenesis [5-6].

According to the above, the expansion of the study of plant terpenoids will lead to the rational use of local plant raw materials, the conservation of biodiversity, and the creation of new highly effective environmentally friendly natural biostimulators to increase crop yields.

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## PECULIARITIES OF MODERN EMBROIDERY IN KASHKADARYA REGION

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### ABSTRACT

*This article provides information about the types of modern applied art of Kashkadarya region, which is one of the southern regions of Uzbekistan, in particular, new forms of embroidery. The role of Kashkadarya applied art in the arts and crafts of Uzbekistan is unique. Today, one of the most important aspects of Uzbek culture is the rapid development of Shakhrisabz embroidery, which is recognized worldwide, and the fact that many young artisans skillfully create modern household items.*

**KEYWORDS:** Arts And Crafts, Embroidery, Cotton Copy, Bee Copy, Beacon, Suzana, Drawing, Traditionalism.

### INTRODUCTION

Since the years of independence, positive changes have taken place in the traditional arts and crafts of Uzbekistan. In a short historical period, new pages were opened in the history of culture and art. Along with the creation of a completely new political basis for the state and society in our country, the priorities for the development of socio-economic and spiritual spheres have also been identified.

Uzbekistan is a country that has inherited the spiritual richness of many cultures and developments, and now the process of exchanging spiritual and artistic values for the idea of mutual enrichment of cultures is developing rapidly. In the context of the transition to a market economy, our forgotten values are being revived in order to develop and revive the traditional folk art of Uzbekistan.

**Main part**

Despite the long-lasting ideological pressure, our people have managed to preserve their historical and cultural values and unique traditions that have been passed down from generation to generation. We consider the restoration of spiritual and cultural values as an integral, natural process, consisting of the growth of national identity, the return to the spiritual origins of the people, its roots.

Development of culture, art, science and education, its development in terms of a new era, a new worldview, the implementation of deep reforms in these areas is one of the priorities of the future of our state and society. Of course, as important as modern concepts, new styles and discoveries are, the spiritual and creative heritage of our ancestors in these areas is no less important. To this end, it should be noted that as a practical result of the large-scale work carried out in our country since the early days of independence, literature and art, culture, the press have been completely freed from ideological pressure. The idea that any work of art, any work of art, must be classy and serve a certain idea, the interests of the communist ideology, has become a thing of the past. Necessary conditions have been created for free creativity to fully and truthfully reflect our national values and rich spirituality, the history of our people, its meaningful life today.

With the help of applied art, it is important to restore national pride, forgotten historical traditions in the minds of young people, to teach the younger generation to be proud of the name and heritage of great ancestors, to instil in them a sense of patriotism. The fruitful work in this area is also reflected in the unique and ancient Kashkadarya region in positive changes.

Kashkadarya embroidery was preserved as a daily occupation of the villagers during the early 1990s. After the declaration of independence of Uzbekistan, it was included in the system of market production, as well as other forms of folk art. In 2008, Doctor of Arts, Professor, Academician of the Uzbek Academy of Sciences A. Hakimov organized an expedition to Mubarek, Karshi, Kasan, Dehkanabad, Kasbi, Chirakchi, Yakkabag, Kitab, Shakhrisabz districts and published several scientific articles.

Indeed, the beauty and charm of Uzbek embroidery, the antiquity of the elements used in the patterns, the diversity of sewing techniques testify to the fact that this type of folk applied art has passed a long stage of historical development.

The work of many embroiderers in the territory of Shakhrisabz on the modern type of embroidery of applied art was applied and studied in detail. These are:

Chorieva Gulnora, Nizomova Saodat, Mannonova Mahliyo, Turaeva Dilnoza, Rakhmatova Dilorom, Bo'ston Chorshanbieva, Mannonov Nodir (painter) are among them.

Chorieva Gulnora Jurakulovna is a model technologist. Kashtadoz founded the Anora Gul sewing company in 2007. In this workshop, more than 20 young embroiderers sew modern embroidery patterns and export them to several foreign countries. In particular, it is obvious that Gulnora Chorlieva's embroidery samples mainly tried to modernize traditional patterns. The main fabric of the embroidery is white-grey, which is decorated with various yarns. She learned

embroidery from the age of 12 from her grandmother and then her mother. The main patterns are almond pattern, bee pattern, ball pattern, cotton pattern, sun pattern. All their products are mostly marketed.

The almond pattern is reminiscent of the appearance of an almond fruit, a ray of fire, or an elegantly twisted leaf at the same time. Processing on this topic requires great attention. For example, depicting a leaf as two, one part of which may be represented by a red or yellow line (path, background) and the other part represented by a small red almond in the centre on a white background. (This situation is reflected in the examples of modern Shakhrisabz and Kitab embroidery). Even the application of plant-like patterns to the interior of the almond is observed. The almond theme symbolically served as a protection and a shield against all evil.

Nizamova Saodat has been embroidering for 25 years. In almost all embroidery samples, she depicted architectural monuments in Khorezm, Ichan Qala, Bukhara, Samarkand, as well as facades. We can also find patterns of cotton, sun, cucumber, pomegranate. Nizamova Saodat's embroidery is based on white and black fabrics.

White was a symbol of objectivity, faith, happiness, solidarity in many nations. The common good intentions that still prevail among the peoples of Central Asia were closely connected with this colour. The colour black, now a symbol of mourning, gave the meaning of fertility because it represented the colour of the earth. The mutual side-by-side use of white and black, common in folk art, can be seen as the presence of good and evil. In embroidery, too, the above colours were used in almost all embroidery items.

Many of the embroideries that are still sewn to this day are being exported to many countries around the world. In her creative work, she has abandoned the traditional patterns, creating marketable products and attracting foreign visitors to sew works in line with the market economy.

Mannonova Mahliyo's teacher's grandmother and mother later learned the secrets of embroidery from Boston Chorshanbieva. She mainly uses silk raw materials. She also sewed many embroidery patterns in Iraq. He currently has about 30 students. Uses more manual labour. Prefers to sew basic patterns with a needle. Trying to maintain the tradition in embroidery patterns. At the same time, it tries to replicate the patterns of more traditional patterns. Among the embroideries, there are images of roses, carnations, tulips, basil, pomegranates, cherries, almonds, apples and peppers. But often with the imagination of the embroiderer, the patterns have changed so much that it is difficult to find original copies of these floral shapes in real life. Even embroiderers who sew images of the same kind of flowers sometimes cannot remember their names well.

Mannonova Mahliyo's embroidery patterns depict many square lights. However, these patterns are completely different from the patterns in traditional embroidery. This embroiderer also presents his creative work mainly for the market today. We see partial art, but the abundance of modern elements seems to obscure it.

Dilnoza Turaeva also continues her mother-in-law's work, producing purses, bags, suzani and several other items on demand. Her daughter Guzal Turaeva and daughter-in-law Lobar Sharopova also continue the family tradition, creating beautiful patterns with their own hands.

Our beautiful hand-embroidered patterns, which show our unique culture and history created by human hands to other nations and peoples, show that there is an ancient history of our independent country. A wide range of opportunities has opened up for women embroidering. Due to his profession, she had the opportunity to go abroad.

He participated in various festivals and exhibitions, won prizes and showed his creative work to his people. In the creative patterns of this embroidery, there are many almond-shaped patterns, plant-like patterns. She brings fabrics and yarn from Margilan himself. The raw material is pure silk.

She sews a lot of small suzani, pillowcases, bedspreads and modern floral bags using modern pattern elements and floral patterns. Finishes hand-sewn suzani in 2.3 months. Finishes sewing hand-made embroidery in a short time. Kashtadoz's works are sold at the Shakhrisabz handicraft market. This master of modern embroidery is currently participating in many competitions in Italy, Spain and China.

Rakhmatova Dilorom was born in Shahrissabz in a family of embroiderers. Has been embroidering for many years. Until the 2000s, she worked in traditional embroidery. Since 2001, she has been creating mainly modern embroidery patterns. She has about 60 students. In the patterns created by the embroiderer, she uses a wide range of beautiful patterns, such as the scorpion print, the anorgul print, the glass print, the cotton print, the almond, and the nine tulips.

White has long been considered the "colour of perfection." It is perceived as a symbol of purity, virginity, purity, truth, sincerity, health and serenity. It is no coincidence that the embroidery she created was sewn on the fabric of this colour. The reason why embroidery is sewn on this white fabric is that this fabric is sewn so that the buyer's life will be white and the next life will be beautiful.

Rakhmatova Dilorom once again told us about a tradition of embroidery. There is such a custom among the embroiderers of Shahrissabz and Kitab districts. They deliberately leave a gap in the embroidery. According to the elders, it was intended to be "wedding after wedding, embroidery, so that my daughter would survive and our heads would not be overwhelmed with joy."

Modern examples of this embroidery are also found in the Shakhrisabz handicraft rastas. In today's creative samples of the master, the tradition can be felt, at least in part.

Boston Chorshanbieva is an embroiderer from Shahrissabz, who has a special place in the art of embroidery in the Kashkadarya region. We can see Bo'ston Chorshanbieva in her creative work and her unique embroidery. She learned to embroider from the age of ten. She learned this profession from his mother and teacher Eshkulova Kurbanoy.

The art of embroidery is a profession passed down from dynasty to dynasty in the Boston Chorshanbieva family. She sews in a unique Iraqi style for the area. In ancient times, the storm, now called kanava, was a special fabric for Iraqi embroidery.

A longitudinal seam is created for the Iraqi stitching method. It is then wrapped with short threads along the thread line. This creates a unique texture of the embroidery surface. It is difficult to draw the pattern on the fabric so first the pattern is drawn on the kalka, then the fabric is placed on the mirror and the pattern is transferred to the fabric. The flowers of the patterns of Iraqi embroidery are sewn in two different types of stitches, namely, in the method of counting and drawing. Bo'ston Chorshanbieva has used these types of stitches many times in her embroidery. The peculiarity and significance of the enumeration method are that the patterns sewn in this method are very clear and distinct from each other. The distance between the patterns was one mil.m. If only one grid was lost during sewing, the work shape was distorted and the work had to be re-stitched. This is why more attention was required from the seamstresses at the enumeration seam.

After independence, the attention and support for handicrafts made embroidery more prosperous. A number of new products began to be produced in the Iraqi way. These include pillowcases, book covers, modern looks of skullcaps, women's clothing and hats, and more.

The development of tourism has led to the emergence of several types of modern items in Iraqi embroideries, such as modern bags decorated with various embroidery, new looks of embroidery. The type and number of products sewn by the spontaneous Iraqi method have increased. This, in turn, means that the diversity of free creation is infinite.

Whereas previously dyes were obtained naturally, now embroideries of beautiful colours are being sewn from dyes that have also been chemically dyed. It is natural that as development progresses, there will be some problems. The development of tourism throughout the ancient cities gave rise to entirely new themes in Iraqi embroidery, the colours were changed according to the tastes of the Europeans while the patterns were preserved, and modern items with ancient patterns were sewn. Bo'ston Chorshanbieva embroidery is rich in floral, geometric and floral patterns. The embroiderer sews his embroidery with his new ideas without copying them from others.

Mannonov Nodir is a master of modern drawing. Draws patterns on the embroidery of many embroiderers. The artist draws patterns with "colour ink" - black natural paint.

When drawing the embroidery composition, the fabric is sewn to a solid board, measured along its diagonal, separated to the centre, and then divided into the main area and a wide border.

Creating each embroidered copy is a creative process for the artist. The designer never copied from the finished work. However, he did not give the embroidered copy to the embroiderer in the form of a drawing. His craft was believed to have a divine mystery. The embroiderer began to sew the board into pieces to make sewing easier. If the pieces are spread out among the embroiderers, the sewing style is agreed upon and distributed to each other depending on the

colours of the selected threads. Sometimes the colours of the patterns were determined by the copyist (drawer) or sewn from the threads to the patterns little by little with a needle.

Today, the master of drawing Mannonov Nodir Shakhrisabz carries out drawing work for all women embroiderers in the craft centre. The attractive appearance of each drawn pattern indicates how high the skill of the drawer is. Among the patterns of the embroiderer, we can see a plant, geometric, different birds and many other pattern elements. In addition, this master craftsman takes into account the requirements and needs of each embroiderer. Patterns that are in line with the market economy and are pleasing to buyers are drawn more than traditional patterns.

This master of drawing has more than 20 students and they too continue the work of the master and work with him.

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The development of tourism has led to the emergence of several types of modern items in Iraqi embroideries, such as modern bags decorated with various embroidery, new looks of embroidery. The type and number of products sewn by the spontaneous Iraqi method have increased. This, in turn, means that the diversity of free creation is infinite.

Whereas previously dyes were obtained naturally, now embroideries of beautiful colours are sewn from dyes that have also been chemically dyed. It is natural that as there is development, there will be some problems. The development of tourism throughout the ancient cities gave rise to completely new themes in Iraqi embroidery, the patterns were changed to suit the tastes of the Europeans while they remained intact, and modern items with ancient patterns began to be seen.

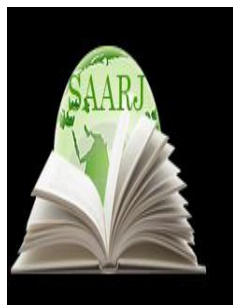
## CONCLUSION

The changes that took place at the end of the twentieth century have had an impact on our national traditions and relics. The invaluable heritage left to us by our ancestors, the attention paid to the masterpieces of rare art is growing due to independence. In general, Kashkadarya has a number of achievements in modern embroidery, as well as some shortcomings. It is no secret that the market economy in embroidery is accelerating and embroiderers mainly contract with foreigners, all products are made to order. This leads to a decrease in the artistic character of the items. In particular, in Kashkadarya and Shakhrisabz, the work of a few embroiderers remains traditional. In the creative work of most embroiderers, along with the mixture of centres, a partial bacchanalianism is evident.

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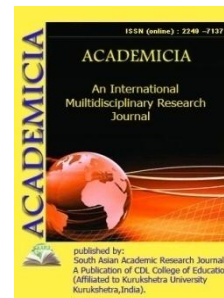
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# ACADEMICIA

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(Double Blind Refereed & Reviewed International Journal)



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### RARE SPECIES OF ASTRAGALUS IN THE FERGANA VALLEY

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#### ABSTRACT

*In the Republic of Uzbekistan, the rarity of Fabaceae is very high, with a large share of Astragalus species. This group of species is endemic in terms of distribution, most of which are distributed within the Fergana Valley. This article is about the rare species of Astragalus that are found in the Fergana Valley.*

**KEYWORDS:** Rare Plants, Astragalus, Fabaceae, Fergana Valley, Red Book, Endemic Plant, Areal, Rare Plant.

#### INTRODUCTION

The distribution zones of the species listed in the Red Book are 23 zones in the Republic of Uzbekistan. Rare plants are found in all highlands of Central Asia (hills, deserts, pastures, and mountains). They are especially numerous and densely distributed in the mountainous areas, and in Uzbekistan, such mountain zones are the ridges that make up the Fergana Valley.

In other words, the Western Tianshan and Pamir Alay mountain ranges are areas where cannabis is abundant. In addition, all the mountains can form a range of unique species. In particular, 68 species have been found in the Gissar Mountains, 27 in the Pamir Alay Range, 27 in the Kyzylkum Desert, 33 in the Chatkal Mountains, 25 in the Nurata Mountains, 10 in the Bobotag Mountains, and more than 10 in the Piskom-Ugam Mountains. [2.Pratov and p. 2011].

Astragalus rubellus, ie red astragalus, is not found in the Fergana Valley, except in the Yazyavan desert (Kokand sands and the village of Karakalpakstan). [1."Red Book". 2016].

#### Main part. 35 Uzbekistan/6 Fergana valley

1. Boris Astragali - Астрагал Бориса - Astragalus Borissianus,
2. Zarxal Astragal - Астрагал Позолоченный - Astragalus Auratus,

3. Ikkirang Astragal - Астрагал двухцветкововидных - *Astragalus dianthoides*
4. Yulingan Astragal - Астрагал оборванный - *Astragalus rhacodes*
5. Qizg'ish Astragal - Астрагал Красноцветый - *Astragalus rubellus*
6. Janubiy Farg'ona Astragali - Астрагал Южноферганский - *Astragalus austroferganicus*

**Astragalus Borissianus.** Rare endemic of the Alai Range. Short description. Perennial, almost stem plant, 30 cm high, with short mi, strongly shortened stems, dressed old leaf stalks. Leaves long 10-23 cm, leaves 10-13-pair, oblong elliptical or lanceolate, pointed, long 7-15 mm, hard, pressed-white on both sides hairy.

**Fig.1. Shakhimardan**

Brushes-compressed, short, 6-8-color movie. The beans are sessile, oblong-ovate, 14-15 mm long, rigid-protruding-white natty, two-celled. Blooms in June bears fruit in August. Spread. Fergana region: Alai- ridge: Shakhimardan river basin. Habitat. Rocky slopes among juniper trees. Number. It is found by single specimens. Reproduction. Seed. The reasons for the change in the number and area Not installed. Cultivation. No information is available. Security measures. Special security measures are not developed [3.plantarium.1."Red Book". 2016].



**Astragalus Auratus.** Rare, endemic species of the Alay and Turkestan ranges. It is spread at the Alay range: nearby the Shakhimardan, the Kul-Kubbon, the Jordan, the Uvlardisai, the Sokh, the Peshkaut valleys at the altitude of 1600-1800 m (the Ferghana region). Inhabits dry stony slopes, pebbles, rarely mounds. The quantity is unknown. Limiting factors: grazing. Measures of protection: not protected. Short description. Perennial, almost herbaceous stem up to 15 cm. The lower leaves are simple, single, the upper leaves are biparous, obovate, on both sides appressed hairy. Peduncles almost equal to leaves, 6-8-flowered, bright yellow flowers. It blooms and bears fruit in July. .

**Astragalus dianthoides.** Rare endemic species of the Alay range. It is spreadg at the Alay range: nearby the villages Chimion, Shakhilmardan, Sadkak,

Fig.2. Sokh village

Kadamzhai, Akpilal, Vuadil, Sokh (the Ferghana region). Inhabits grey soils, conglomerates and shales, ravines in foothills. Rare, isolated specimens can be found. Measures of protection: not protected. Short description. Perennial, almost stemless plant 3-4 cm high, densely appressed-pubescent. Leaves 1-2 cm long with thin petioles up to 2-5 mm long. Leaflets are 4-5-paired, oblong, 2-7 mm long, wide about 1 mm, densely haired on both sides. Brushes with 2-3 flowers. Calyx tubular, length 12-16 mm. Corolla yellow, sometimes reddening. Pods 20-25 mm long, 3 mm wide, tapered to the base and apex, with a very short spout, transversely veined, laterally compressed, finely appressed hairy. Blossoms in April; bears fruit in April-May.

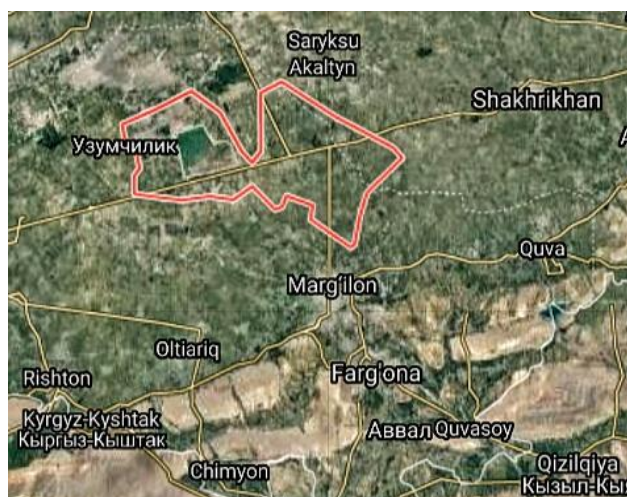


**Astragalus rhacodes.** A rare species of the Alai Range. Short description . The semi-shrub is woody in the lower part. Leaves 7-12 cm long, petioles 15-17 cm long, whitish. Flowers are equal to leaves, sometimes longer than them. Clusters are loose, 10-25 flowers. The calyx swells with plots. The flowers are yellow. Pods are semi-oval or oblong-semi-oval. Blossoms in May-June, bears fruit in June-July. Rare endemic species of the Alay range . It is spread at the Alay range : nearby the villages Shakhimardan Sadkak and Kiziltag ( the Ferghana region ) . Inhabits red sands , story and earth- slopes at the attitude of 1200-1600 m . The quantity is unknown . Limiting fac tors : pasturing . Measures of protection : not protected.

#### **Astragalus rubellus.**

Extremely rare , endemic species of the Ferghana alley . spread at the Ferghana valley , nearby Ko kand , the village Kara - Kalpak and the Yazyayan sands the Ferghana region ) . Inhabits sandy hills and slightly saline sands . The quantity is unknown Limiting fac tars : decreasing of sandy area . Measures of protection : not protected. Extremely rare endemic to the Fergana Valley Brief description. Perennial stemless herb up to 35 cm high. The stem is white-haired. Leaves up to 30-35 cm long, protruding - wormy, leaves 14-18 - paired, rounded. Peduncles 15 cm long, short - protruding - pubescent. Clusters 11-18 cm long, consist of 8-15 flowers. The flowers are red. Pods up to 2 cm long, inflated, ovoid leathery, with protruding seams. It blooms in April-May, bears fruit in May-June.

Fig 3. Yazyavan descript.



**Astragalus austroferganicus.** Endemic of the foothills of the Northern Pa mir - Alai. Short description . Perennial 10-20 cm in height. Stems are thin, whitish. Leaves 1-2-3 are paired, 1-2-6 cm long, rounded leaves. Calyx 12-18 mm long, white and black scattered hairy. Flag yellow 20 mm long, wings 17-18 mm long, boat 18-20 mm long. Pods are 20-50 mm long, with a pedicle 2-3 mm long, straight with a spout 8-10 mm long, whitish-gray. Blossoms in May; bears fruit in June. Spread . Fergana Valley: Fergana region (Yangiariq). Habitat. Salty clays. Number. Collected once by A. Joffe in 1928. The species apparently disappeared. Reproduction Seed. Causes of Rare endemic species of the Ferghana valley. It is spread at the foothills, nearby Ferghana city (the Fer ghana region). Inhabits salty clays. The plants were collected by A. Joffe in 1928. Probably disappeared. Limiting factors: pasturing. Measures of protection: not protected.[Vinogradova]

### CONCLUSION

At present, there is no complete information about any of the plants included in the Red Data Book of the Republic of Uzbekistan. In addition, the book lists the species in a specific category and provides protection measures for that category. However, in conclusion, despite the fact that the plants are divided into this category, no specific protection measures have been developed.

1. In danger of extinction, requiring special protection to survive.
2. The range was small and unique, disappearing rapidly and requiring strict control.
3. Over a period of time, the number and area are shrinking due to natural or anthropological factors.

**Fig.4**

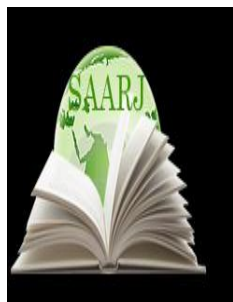
	A.Borissianus	A.Auratus	A.Dianthoides	A.Arhaodes	A.Rubellus	A.Austro ferganicus
1	+					-
2		+	+	+	+	-
3						-

Looking at this table, more endemic species of *Astragalus* are found in this area. And in fact, they are the only species that need strict protection. The fact that *Astragalus austroferganicus* is not included in any network is analytical evidence of the lack of data on the species.

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18. The plant list links



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## A SURVEY OF HYBRIDIZATION OF ABC FOR OPTIMIZATION OF CONTINUOUS FUNCTIONING

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### ABSTRACT

*Swarm intelligence algorithms are meta heuristics that simulates the nature for solving optimization problems, Artificial Bee Colony (ABC) algorithm is one of the most recent nature inspired algorithms which used for problem optimization, numerous research efforts has been concentrated in this particular area. However, the Artificial Bee Colony performance of the local search process and the bee movement or the solution improvement equation still has some weaknesses. The Artificial Bee Colony is good in avoiding trapping at the local optimum but it spends its time searching around unpromising random selected solutions, in order to overcome these limitations as well as to broaden the scope and viability of nature inspired algorithms many variations of this algorithm are being presented and the results being very amazing. This paper presents an overview of some of the hybridized meta heuristics with Artificial Bee Colony algorithm for continuous function optimization; many benchmark functions have been used to show the validity of every approach.*

**KEYWORDS:** Artificial bee colony (ABC), Hybridization, Particle Swarm Optimization, Quantum Evolutionary, Algorithm Simulated Annealing.

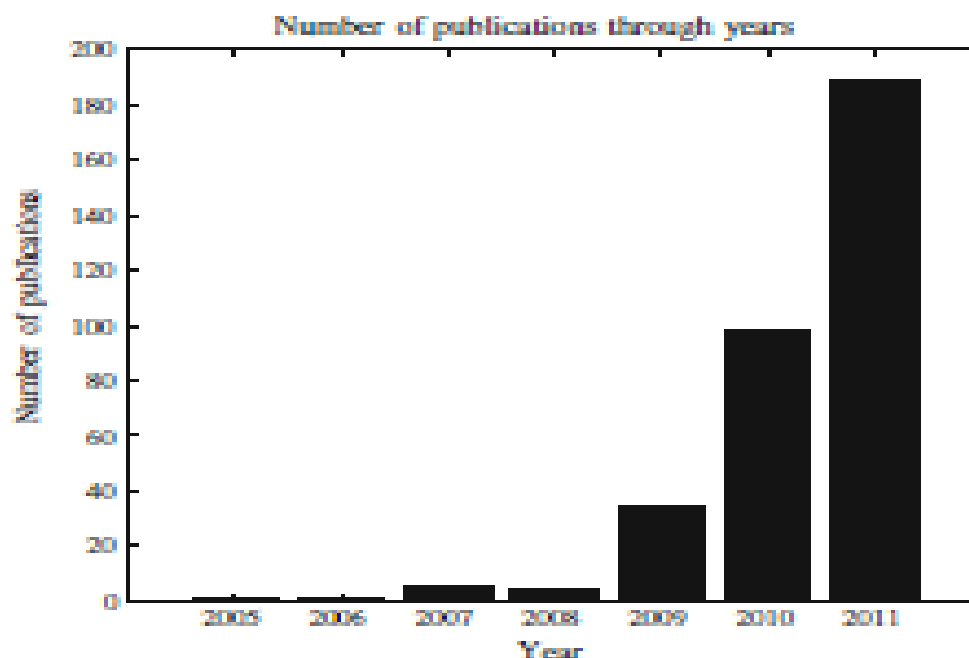
### INTRODUCTION

Many researchers have been influenced by the behaviors of swarms in nature, this gave birth to swarm intelligence and population based algorithms such as Ant Colony Optimization[1]-[3], Particle Swarm Optimization[4], Fish Schooling [5], Bee Colony Optimization[6] etc.

Swarm based algorithms are based on the iterative improvement of a set of solutions or and mostly employ randomization and local search to solve a given optimization problem. These

algorithms have been developed and successfully applied to solve computational and complex problems in different areas.

Bee colony is one of the most well studied social community, many studies have been developed based on the interaction between members of that colony. Inspired by the intelligent behavior of honey bees Artificial Bee Colony (ABC), a swarm intelligence based algorithms was introduced by [7], ABC algorithm was developed based on the model of the foraging behavior of honey bee colonies proposed by [8] for numerical optimization problems. The number of publications in the field of studying ABC and its application in the literature increases exponentially as can be seen in Figure 1 where it demonstrates the distribution of publications related to ABC with respect to years [9].



The organization of the paper is as follows: Section 2 presents ABC algorithm. Some of the Approaches Hybridized with ABC for continuous function optimization are discussed in Section 3. The conclusion is drawn in Section 4.

### ARTIFICIAL BEE COLONY ALGORITHM

Artificial Bee Colony is a robust and population based stochastic optimization algorithm [7] simulating the intelligent foraging behavior of a honeybee swarm, proposed by Karaboga and Basturk [10].

## BEHAVIOR OF BEES

In ABC algorithm, the colony of artificial bees contains three groups of bees: onlookers and scouts[10] employed bees are associated with a particular food source which they are currently exploiting or are “employed” at. They carry with them information about this particular source, its distance and direction from the nest, the profitability of the source and share this information with a certain probability [7]. Other bees are continually at look out for a food source to exploit. There are two types of unemployed foragers: scouts, searching the environment surrounding the nest for new food sources and onlookers waiting in the nest and establishing a food source through the information shared by employed foragers. The number of scouts on average conditions is about 5-10% [11].

## ARTIFICIAL BEE COLONY (ABC) ALGORITHM

In the Artificial Bee Colony algorithm, first half of the bee colony contain of employed artificial bees and the second half contain the onlooker bee. The numbers of employed bees are same as the number of food sources surrounded the hive. The employed bee whose food source is randomized by the employed and onlooker bees becomes a scout bee [12].

Detailed pseudo-code of the ABC algorithm is given below [13]:

- 1: Initialize the population of solutions  $x_i$ ,  $i = 1 \dots SN$
- 2: Evaluate the population
- 3: cycle=1
- 4: repeat
- 5: Produce new solutions  $v_i$  for the employed bees by using (4) and evaluate them
- 6: Apply the greedy selection process
- 7: Calculate the probability values  $p_i$  for the solutions  $x_i$  by (3)
- 8: Produce the new solutions  $v_i$  for the onlookers from the solutions  $x_i$  selected depending on  $p_i$  and evaluate them
- 9: Apply the greedy selection process
- 10: Determine the abandoned solution for the scout, if exists, and replace it with a new randomly produced solution  $x_i$  by (5)
- 11: Memorize the best solution achieved so far
- 12: cycle=cycle+1
- 13: until cycle=MCN

In ABC algorithm, the position of a food source represents a possible solution to the optimization problem and the nectar amount of a food source corresponds to the quality (fitness) of the associated solution. The number of the employed bees or the onlooker bees is equal to the number of solutions in the population. At the first step, the ABC generates a randomly distributed initial population  $P$  ( $G = 0$ ) of  $SN$  solutions (food source positions), where  $SN$  denotes the size of population.

Each solution  $x_i$  ( $i = 1, 2, \dots, SN$ ) is a  $D$ -dimensional vector. Here,  $D$  is the number of optimization parameters. After initialization, the population of the positions (solutions) is subjected to repeated cycles,  $C = 1, 2, \dots, MCN$ , of the search processes of the employed bees, the onlooker bees and scout bees. An employed bee produces a modification on the position (solution) in her memory depending on the local information (visual information) and tests the nectar amount (fitness value) of the new source (new solution). Provided that the nectar amount

of the new one is higher than that of the previous one, the bee memorizes the new position and forgets the old one. Otherwise she keeps the position of the previous one in her memory. After all employed bees complete the search process, they share the nectar information of the food sources and their position information with the onlooker bees on the dance Area. An onlooker bee evaluates the nectar information taken from all employed bees and chooses a food source with a probability related to its nectar amount. As in the case of the employed bee, she produces a modification on the position in her memory and checks the nectar amount of the candidate source. Providing that its nectar is higher than that of the previous one, the bee memorizes the new position and forgets the old one. An artificial onlooker bee chooses a food source depending on the probability value associated with that food source,  $p_i$ , calculated by the following expression (3):

$$p_i = \frac{fit_i}{\sum_{n=1}^{SN} fit_n}$$

Where  $fit_i$  is the fitness value of the solution  $i$  which is proportional to the nectar amount of the food source in the position  $i$  and SN is the number of food sources which is equal to the number of employed bees (BN).

In order to produce a candidate food position from the old one in memory, the ABC uses the following expression (4):

$$v_{ij} = x_{ij} + \phi_{ij}(x_{ij} - x_{kj})$$

where  $k \in \{1, 2, \dots, SN\}$  and  $j \in \{1, 2, \dots, D\}$  are randomly chosen indexes. Although  $k$  is determined randomly, it has to be different from  $i$ .  $\phi_{i,j}$  is a random number between  $[-1, 1]$ . It controls the production of neighbor food sources around  $x_{i,j}$  and represents the comparison of two food positions visually by a bee. As can be seen from (4), as the difference between the parameters of the  $x_{i,j}$  and  $x_{k,j}$  decreases, the perturbation on the position  $x_{i,j}$  gets decrease, too. Thus, as the search approaches to the optimum solution in the search space, the step length is adaptively reduced. The food source of which the nectar is abandoned by the bees is replaced with a new food source by the scouts. In ABC, this is simulated by producing a position randomly and replacing it with the abandoned one. In ABC, providing that a position cannot be improved further through a predetermined number of cycles, then that food source is assumed to be abandoned. The value of predetermined number of cycles is an important control parameter of the ABC algorithm, which is called “limit” for abandonment. Assume that the abandoned source is  $x_i$  and  $j \in \{1, 2, \dots, D\}$ , then the scout discovers a new food source to be replaced with  $x_i$ . This operation can be defined as in (5)

$$x_j^i = x_{\min}^j + rand(0,1)(x_{\max}^j - x_{\min}^j)$$

After each candidate source position  $v_{i,j}$  is produced and then evaluated by the artificial bee, its performance is compared with that of its old one. If the new food source has an equal or better nectar than the old source, it is replaced with the old one in the memory. Otherwise, the old one is retained in the memory. In other words, a greedy selection mechanism is employed as the selection operation between the old and the candidate one. There are three control parameters in the ABC: The number of food sources which is equal to the number of employed or onlooker bees (SN), the value of limit, the maximum cycle number (MCN). In a robust search process,

exploration and exploitation processes must be carried out together. In the ABC algorithm, while onlookers and employed bees carry out the exploitation process in the search space, the scouts control the exploration process.

However, the speed and precision of convergence of ABC decrease as the dimension of the problem increases [10]. This is mainly because in the ABC algorithm, bees exchange information on one dimension with a random neighbor in each food source searching process. So many researches have been introduced to improve the canonical ABC and to overcome its drawback.

### **HYBRIDIZING ABC WITH OTHER APPROACHES:**

This section contains survey on hybrid algorithms used mainly for continuous function optimization. In this ABC is one of the prime algorithms. Researchers have enhanced the performance of ABC by incorporating many algorithms like Genetic algorithms, Particle Swarm Optimization, Simulated Annealing, etc. in it.

### **HYBRIDIZING ABC WITH GENETIC ALGORITHM**

Yan et al, (2011) presented ABC hybridized with a real value single-point crossover operator of Genetic Algorithm [19], to improve its optimizing ability, and to overcome the two weaknesses exist in the canonical ABC, those are: first, the information exchanged is limited so the algorithm may converge slowly. Second, the bee and dimension are all chosen randomly so food sources with high fitness are not utilized. The modified algorithm is called HABC where its parts are the same as the original ABC except a crossover phase is added between the onlooker bees' and scout bees' phase. After all the onlooker bees complete their searches, the crossover phase starts. For each of the selected food source, this approach selects two parents randomly from the parent population, generates a crossover point randomly within the dimension and crosses the two parents to produce two new food sources. After that, a greedy selection is applied to the selected and newly produced food sources. If the fitness of the better one in the new food sources is higher than that of selected one, it will replace the selected one and the trials counter for this food will be reset to 0. Otherwise, memory doesn't change and counter's value will be incremented by 1, just like that in employed bees or onlooker bees' phase.

With this new operator, individuals exchange more information in the early stage of the algorithm, which enhances the convergence ability of the algorithm. At the end of the algorithm, as the difference between individuals' decreases, the perturbation of crossover operator decreases. Population move towards the optimization point.

### **ABC WITH A MUTATION STEP SIZE**

Alam et al, (2010) introduced ABC with Exponentially Distributed Mutation (ABC-EDM) with a mutation of the existing employed and onlooker bees to produce new offspring solutions [20]; that is in steps 5 and 8. ABC picks  $\Phi_{ij}$  randomly in the range  $[-1, 1]$  which is much like a 'blind' mutation to alter the existing solutions, while ABC-EDM tries to find a suitable scaling factor,  $SF_{ij}$  for  $\Phi_{ij}$ . In steps 5 and 8. So( 4) is replaced by following formula .

$$v_{i,j} = \chi_{i,j} + SF_{ij} * \phi_{ij} * (\chi_{i,j} - \chi_{k,j})$$

SFij is the scaling factor that ABC-EDM keeps track of separately for every dimension, j of every individual xi. All SFij values are initiated to 1 during the beginning of the search process. As the search progresses across several local minima and plateaus or flat regions of the fitness landscape, the SFij values are automatically adjusted by the adaptation scheme in order to take care of the current situation. Large enough values for SFij would expand the product  $SFij * \Phi_{ij}$  in order to promote large mutation steps for better exploration of the search space and quickly get rid of local minima or flat plateaus. On the contrary, small values (less than unity) for SFij would shrink the product  $SFij * \Phi_{ij}$  (in the new formula) and thus facilitate small mutation steps ensuring exploitation in the vicinity of current search points.

### **HYBRIDIZING ABC WITH STANDARD PARTICLE SWARM OPTIMIZATION:**

The Standard Particle Swarm Optimization (SPSO) algorithm provides an option for a rotation of the random step in order to make it less sensitive to rotations. Another advantage is that SPSO is very successful on uni-modal functions. El-Abd, (2011) tried to hybridize ABC and SPSO on the components level the resulting algorithm can easily solve separable problems as ABC (since its update equation only updates a single problem variable at a time after which the new solution is re-evaluated) while having a rotationally invariant behavior as SPSO at the same time, so the benefit from the two approached respective strengths is gained [21]. In this approach, both SPSO and the ABC component have an equal share of the allowed number of function evaluations. Another approach that is also tested is to update the best objective function value the particle has achieved so far( pbest) of the swarm in fitness proportionate approach instead of updating the pbest of each particle once. Hence, better particles are updated using the ABC component more often.

Also inspired by the PSO, Alqattan et al. (2015) proposed a Hybrid Particle-movement ABC algorithm called HPABC [22], which adapts the particle movement process to improve the exploration of the original ABC algorithm. In the HPABC algorithm, the colony of the artificial bee contains only two groups of bees: onlookers and scouts. The whole colony members are of onlooker bees. In other words, the number of the food sources is equal to the number of the colony size. The onlooker bee of an abandoned food source becomes a scout. Note that the employed bees phase is eliminated in HPABC because basically it is similar to the onlooker bees' phase with more randomization strategy where there is no probability determination for the selected solution. Moreover, it is almost doubling the search time consumption of the original ABC algorithm.

### **HYBRIDIZING ABC WITH QUANTUM EVOLUTIONARY ALGORITHM (QEA)**

To improve Genetic Algorithms for certain problems, a quantum evolutionary algorithm (QEA) is proposed on the basis of the concept and principles of quantum computing [14]. Although the QEA has many advantages, it still has scope for improvement because QEA could not always reach the best solution of the problem, which means that the algorithm still has a considerable probability of premature convergence. Duan et al. (2010) adopted ABC to increase the local search capacity as well as the randomness of the populations [23]. In this way, the improved QEA can jump out of the premature convergence and find the optimal value.

### **ABC WITH ADAPTIVE EXPLORATIONS AND EXPLOITATIONS**

Alam et al, (2015) introduced ABC algorithm with Adaptive eXplorations and eXploitations (ABC-AX2) where each candidate solution with three control parameters that control the perturbation rate, magnitude of perturbations and proportion of explorative and exploitative perturbations [24]. Together, all the control parameters try to adapt the degree of global explorations and local exploitations around each candidate solution by affecting how new trial solutions are produced from the existing ones. The control parameters are automatically adapted at the individual solution level, separately for each candidate solution

### **HYBRID GUIDED ARTIFICIAL BEE COLONY ALGORITHM**

Shah et al. (2014) proposed hybridizing the two well known improved algorithms Guided Artificial Bee Colony (GABC) [16-18] and Gbest Guided Artificial Bee Colony (GGABC) [15], the resulting algorithm is called Hybrid Guided Artificial Bee Colony (HGABC) algorithm and used for strong discovery and utilization processes [25]. HGABC algorithm as a hybrid optimization tool provides a population-based search procedure in which individuals called foods positions are modified by global and Gbest artificial bees with time, and the bee's aim is to discover the places of best food sources with high nectar amount and finally the one with the highest nectar. The HGABC algorithm updates the solution step and converts to best solution based on neighborhood values, though hybridization of guided and best guided strategy.

### **HYBRIDIZING ARTIFICIAL BEE COLONY WITH SIMULATED ANNEALING**

Mirsadeghi et al. (2012) presented a new approach where the exploration/exploitation balancing strategy of Simulated Annealing (SA) is incorporated into the original ABC algorithm to improve its search efficiency and reduce its computational cost, the idea of variable exploration and exploitation which is noticed in SA is applied for Bee colony algorithm to improve its performance [26]. A temperature is defined for the system which is high at first and is decreased gradually. With decrement of the temperature, the number of random points generated in every iteration is decreased and they are added to the points that are used for neighborhood search. This helps the algorithm to adjust the exploration and exploitation capabilities. The algorithm begins with a high exploration rate and minimal exploitation effort and gradually switches to higher exploitation rates as the promising areas of the search space are identified.

### **CONCLUSION**

ABC algorithm is very simple and very flexible when compared to other swarm based algorithms as ABC does not require external parameters or prior parameter setting as in other evolutionary algorithms. Although ABC has great potential, some modifications to its original structure are still necessary in order to improve its performance. And also ABC can be integrated with other different evolutionary algorithms in order to provide diversity on scout production. New strategies can be described for scout production phase. Moreover, this strategy can be operated adaptively depending on the dynamics of the search. For the distribution of onlookers to the sources, new selection strategies which enhance the performance of ABC can be described.

Like all other evolutionary optimization approaches, ABC also has some drawbacks. For example since it does not use an operator like crossover as employed in GA or DE the distribution of good information between solutions is not at a required level. This causes the convergence performance of ABC for local minimum to be slow here many searches have been done and its convergence performance has been improved.

This paper will motivate and help the researchers who are working in this field to develop new hybrid algorithms. On a concluding note, it can be said that hybridization of algorithms is an interesting and promising field. It can give us more insights regarding the behavior and potential advantages and disadvantages of different algorithms.

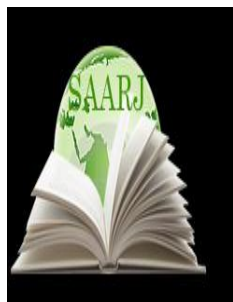
The methodologies mentioned here can be hybridized with many other existing evolutionary, swarm intelligence, machine learning techniques to further improve its results. Finally, many of the methods described here can be employed on continuous real world problems.

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## COMPARATIVE ANALYSE OF CASES IN THE TURKIC LANGUAGES

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## ABSTRACT

*The peculiarities of the Turkic languages in the later stages of development were kept at different levels in the later stages. The independent development of the Turkic languages is determined by the socio-political processes and the influence of fraternal and non-fraternal languages. Observing changes in phonetic-phonological, lexical, grammatical levels, comparative analysis of categorical symbols, paradigmatic and syntagmatic means of communication allows for practical solution of the disputable problems of turkology. This article deals with the category of compromise in Turkish, grammatical meaning and grammatical forms. Comparative forms in the*

*Uzbek and Turkish languages are compared, and the semantics of head, arrow, receipts, departure, time, and exit arrangements are highlighted. The versions of the case forms based on the singularity law are analyzed using examples. The Uzbek and Turkish languages were compared by the system of compromises, the number of compromises, and the extent of variants of compromise forms. The role of the covenants in the syntactic formulation of words and in the maintenance of the syntactic relationship is shown. The methodological features between the synonyms of the syllables, the synonyms of the consonants and the auxiliaries, and the grammatical meanings are analyzed. It is commented that there are calculation of the case system from the ancient category in Turkic grammar, its active use in securing syntactic relations, the absence of consensus in the morphological classification of certain grammatical forms, and its evaluation rather than the difference between language facts; differences in interpretation and that such differences are due to the complex morphological and syntactic nature of the compromises. Recommendations on generalization of classification of Turkic languages, in particular Uzbek and Turkish languages, achievement of uniformity in grammatical analysis of consonant forms, normalization of consonant forms preserved in the dialect.*

**KEYWORDS:** *Ancestral Language, Social Factor, Geographical Factor, Grammatical Category, Morphological Category, Negotiation Category, Possessive Category, Singarmonism, Categorical Character, Paradigmatic And Syntactic Communication, Classical Celtic Classics, Orthographic Form, Orthographic Form.*

## INTRODUCTION

The practical value of studying the Turkic languages morphology in comparative-historical aspect is as follows:

- it is possible to obtain important information about the process of formation of the national language, family of Altai languages, grammatical peculiarities of the Turkic languages group, phonetic, lexical and morphological features;
- The analyses of morphology gives an idea about the classification of Turkic languages, regions of distribution, the Turkic-speaking people;
- Provides important information about the level of linguistic features of Turkic languages in the early development of modern Turkic languages, linguistic and non-linguistic factors;
- The preservation of the grammatical features of the Turkic languages from the earliest stages of development in dialects, in this regard, the opportunity to understand the importance of the dialects as an important linguistic base.

At present, the impact of globalization is evident in all areas. In this situation, comparisons of Turkic languages play an important role in improving the field of Turkology, in addressing global Turkic issues, in the development of written monuments in Turkic languages, and in determining the directions of Turkic languages. After all, serious consideration of the national language, the history and the quality of the brotherly languages determine the basic criteria for all socio-economic development, the country's development and the prosperity of the nation.

## Methods

The methodology of the present research is defined by the complex of methods of comparative-typological, comparative-historical, structural-semantic analysis, as well as principles of hermeneutics (interpretation of the text) and methods of literary analysis of the text.

## Data, Analysis, and Results

On the basis of new social and geographical factors arising in the process of interaction between the Turkic peoples, each of the Turkic languages has its own unique characteristics. An analysis of the causes of such changes on the basis of comparison of lexical-morphological levels, categorical symbols, paradigmatic and syntagmatic means of communication in several Turkic languages can provide a practical solution to the disputable issues of turkology. In particular, the Turkic language nouns have their own complexity due to the variability of categorical symbols. In Turkology, although the noun-specific categories are distinguished by some distinct features, they are known to have much in common in the early stages of historical development. In this context, the well-known linguist Ferdinand de Sossur states that "The whole language mechanism revolves around similarities and differences" [32,44].

A number of studies have been done on comparative study of Uzbek language with other Turkic languages. In particular, the Uzbek, Kazakh, Kyrgyz, and Turkmen languages are formal-functional, lexical-semantic, morphological, and syntactic comparisons [44; 45; 28]. Expansion and strengthening of the socio-economic and cultural ties between the Turkic-speaking countries has provided a great opportunity for a comparative study of the languages of these people. "Such research has a special role in correctly and completely defining the regularities of the historical formation of the Uzbek literary language. Such comparative research is also important in addressing language history and spelling issues [39, 15].

Lexical and semantic changes in the development of Uzbek and Turkish languages have been studied in recent years as the subject of a number of studies. Of course, while changes in the period are primarily reflected in the vocabulary, but the grammatical regularities are also important for the speech mechanism, it is important to study the changes in the functional and functional capabilities of morphological categories and word forms. Therefore, it is worth noting that in recent years there has been a study in the linguistics of Uzbek linguistics concerning the study of the morphological and syntactic features of related languages.

The study of the grammatical category of the noun in the Uzbek and Turkish languages, first of all, will clarify the regularities of the development of grammatical categories of nouns and changes in them, which will give a general Turkological description of certain grammatical phenomena, including the names of noun-grammatical categories. After all, "Comparison of grammatical categories should begin with a comparison of the categorical features of semes" [10,3–9]. The general abstract meaning expressed by the morphological category of case is "attitude" (the relation of the subject to other objects or things). However, the grammatical forms that fall under this category are so varied that it is difficult to include them in the meaning of 'attitude'. Therefore, the interpretation of Turkic languages is interpreted differently. The case category is one of the most important grammatical categories, which consists of a system of meanings that express the syntactic relation of one word to another and the forms that express these meanings. This category defines the relationship between what is present, the character, and the event. Since the category of the case is formed by several specific meanings and different

means of expressing these meanings, the number of concessions is not the same in Turkish. There is still no consensus on the number of Turkic languages [10,3–9]. Different definition of names and sizes of contracts is primarily due to the differences in the content and function of the individual meanings and forms in the category of case. The system of the Covenant is very closely related to the Turkic languages. The Turkic language morphology belongs to the category of word-converters (syntax makers in the literature of recent years). In Uzbek linguistics, that is, its morphology section, it is mainly studied as word-formation units, word-forms and related language phenomena.

There are two types of compromise systems in Turkish. The first one is relatively old and belongs to the period of the old language. The latter is thought to have emerged later, that is, in the final stages of the language period. Turkologists differ on the number of ancient Turkic languages: VV Radlov 8, I.A. Batmanov claims that there are 6, VI Nasilov and 7 Kononov. In modern Turkic languages, the differences are not significant. There are 6 cases in Tatar, Gagauz, Azerbaijan, Turkmen, Uzbek, Karakalpak, 7 in Kazakh, 8 in Khakas and Chuvash, 9 in Turkish and Bashkir.

Studies in Uzbek linguistics show that there are six forms of case in Uzbek literary language. It is Ayub Gulyamov, a scientist who first researched the Uzbek language. He detailed in detail the forms, meanings and functions of each consensus [52]. The number of Turkish-speaking colloquialisms is still unclear. Some turkology scholars also claim that there are six forms of Turkish language in Turkish [20,74]. However, Turkish scholars differ in the number of conclusions in Turkish literary language. Specifically, O`Demirjan has seven cases (**yalın, belirtme, yönelme, kalma, çıkma, tamlayan, eşitlik**), T.Banguoglu tells there are ten cases: 1. İççekim halleri (inner harmony case), kim, kimi, kime, kimde, kimden, kimin; 2. Dışçekim halleri (External cases) **kimle, kimce, kimli, kimsiz**. The article summarizes all of these classifications and gives an overview of the ten forms of Turkish settlement: **yalın (бош), ilgi (қаратқич), belirtme (тушум), yönelme (жўналиш), bulunma (ўрин-пайт), çıkma (чиқиш)** cases. These are the forms of words that appear in the suffixes in the consonant system, which are not equivalent in the Uzbek case system: **kimle, kimce, kimli, kimsiz**. Both languages have controversial issues concerning the category of conciliation. In particular, while some of the supporters of inclusion in the Uzbek language include suffixes like –day (-dek), -gacha, -dagi [30,27], some linguists argue that it is wrong to include them in the category of case [22,43]. In Turkish linguistics, too, forms with the suffixes **-le, -ce, -li, -siz**. If Banguoglu falls under the category of compromise, such an approach is not found in the works of other Turkish linguists. The existence of such scientific and controversial problems stems from the complexity of the Uzbek and Turkish grammar systems. In both languages, consonant affinities are synonymous with other grammatical forms, such as auxiliary words, in addition to a synonymic relationship [48,16]. This feature fully justifies that each category in the language system is inextricably linked to the other. In the study of Turkic languages, the subject of compromises is more widely covered than other issues of morphology [52,37]. However, AN Kononov noted that semantic study of Turkic grammar is an undiscovered reserve. Even in Turkic languages, which are relatively broad and fully described, with all their grammatical forms, the semantic features of these forms are vague [24,7]. The Turkic languages are deeply studied in terms of meaning, scope and function in speech. However, given the genetic similarity of sister languages, there is a need to clarify a number of issues, such as comparing the expression

capabilities of consonant supplements, identifying common and specific features in the semantics, and determining the degree to which these forms occur in speech. In the scientific literature the first arrival of Turkic languages since the times of O.Byotling and V.Radlov is called "general consensus". The noun's head contract form has no special affix. This form of case is opposed to the affixed forms and is defined in relation to them. Logically, just as there is a form of existence, there is a distinctive form of existence that differs from that of existence. In language, however, only differences can be made. As de Sossyur once pointed out [32,120]. The general form of consensus is the initial form for all other cases, namely, the nouns in the dictionary in this form [8,81]. This consensus noun is the basis for all forms of compromise that remain functional in both languages. It is precisely this case that expresses specific subjective, generalized and subjective meanings [19,50]. These meanings of the chief conspiracy serve as a distinction between its syntactic functions. In Turkology, the syntactic functions of the main axis are different and require special attention. The general case also contains such compounds, the first component of which is represented by the consensus and the second component is represented by the noun with the affix of the possessive. For example:Asaka Bank, Ulugbek Park. Such combinations are not among the target compounds. Because the first component of these compounds is in the form of a consonant rather than an unmarked arrowhead, so it enters an explanatory relationship with the second component. In Turkish linguistics these compounds are known separately as "«ad tamlamaları»" (noun compounds) [7,68]. İstanbul şehri, yatak odası has been used as an extravagant design in some studies [6,19]. In both languages, words about the category of quality, verb, number, and rhyme have the potential to be in case. In both languages, the morphological and syntactic features of the head are similar. However, the range of meanings expressed by the main consensus is not the same in Uzbek and Turkish. In Turkish, consensus is also used to pronounce a person's name, title or other feature [7,326-327]. Zeynep! Baba! Hanım! Arabacı!such as. Such use of a noun in the main conspiracy is still called **çağrı hali**. In the Uzbek language, however, such constructions are included in the consonants [47,192]. From the point of view of the history of the Uzbek language, it was also a form of call. For example, forms such as "Allah-o", "God-o", "God-yo", "God-or-God", and "Salima-nu" in our women's discourse are clearly seen. However, the scope of these forms is limited, meaning that the words to which these forms are added are narrowly meaningful, and there is no reason to call them separate forms of case.

It is worth noting that in Turkish linguistics words that have the plural and the possessive affixes are also considered to be consonants and are stated separately [40,21]. However, regardless of the meaning of possessive or plurality, all words that refer to the constituent of a noun that do not take any form of consensus should be considered as consensus [6,]. Some articles in the Uzbek language show the position of the main compromise in place of the time and place of origin. This form of expression is not available in Turkish. In the Uzbek language, the key words can also be used with the help of auxiliary: Clouds are moving over the sky. In the Turkish language, the key word comes with auxiliary: as far as abstract subjects are used, together with the small, the-connected. So the main consensus is that the Turkic languages are the first Turkic languages to agree. In the modern Uzbek and Turkish languages, both well-known nouns and related nouns, and nouns that have the suffixes of plurality and possessive, are in case.

The pirate case is a categorical phenomenon in the Uzbek and Turkish languages that expresses the relation between the two words of a noun or the relation of the nouns. A key feature of the

piracy case is its combination of possessive affixes [53,30]. In this regard, it is important to point out the degree of robustness of the syntactic link between the pointer and the viewer, and that the spiritual and formal expression of the link differs slightly in most Turkic languages. Noun-drawn nouns are always associated with nouns [28,30]. In English, the target is usually formed by the suffix. However, in verbal and vocabulary options like **-нўнг, -тўнг, -тинг, -дўнг, -динг, -тў, -ти, -дў, -у, -ни, -нунг, -дунг, -инг, -им, (-ми, -ни)**.. Some of these are phonetic variants of affiliation, while others are poetic or historical. Sh.U.Rahmatullaev shows four forms of affinity case: **0, -ни, -инг, -н** [48,204-205]. Of these, the affix is a verbal expression (did you not see the lid of the boiler?), And its affection is typical of poetry. - The affix is used mainly in the language of literary works, especially in poetry. This affix is specific only to the Uzbek literary language and does not appear in other Turkic languages, including Turkish and Kyrgyz [9,5].

In the modern Uzbek language, I and II are formed by the addition of the suffix form, which is the predominant form of the individual personality pronouns. This affix has also been found in Old Turkic texts, and N.K.Dmitriev calls these supplements grammatical consonants and considers it a feature of southern Turkic languages [13,38]. Target case in Turkish has different forms according to its phonetic rules. After consonant **-in, -in, -un, -ün**; after vowel **-nin, -nin, -nun, -nün**;

It is also used as **-im** after the I person's personality. This phenomenon is only found in the Uzbek language in fiction, or rather in historical works [46,3];

In modern Uzbek, it is possible to say that the form of the consonant is still in the word "I think". In your opinion, like the word "I think", the form of the target is inferior. In Turkish, as mentioned above, some scientific publications have been referred to as «**Ad Tamlamaları**» (27,68). That is why some Turkish scholars are still completing this case as **tamlayan hali** [14,49]. When a noun rider is given a sign, that is, **belirtli ad tamlaması** specified name tag is used as an unlabeled adjective when used without a rifle affix **belirtsiz ad tamlaması**. There are various opinions among Turkish linguists on this issue. Consider the following two compounds:

1. Çilek reçeli - strawberry jam
2. ситагйнй-Friday

We can use our first combination with **-in** affix. However, it is absolutely inappropriate to use a slider attachment in the second compound. For this reason, some Turkish linguists call such compounds «**Yalın hali**» (General Consensus), while others call it **belirtsiz ad tamlaması**. For example, İstanbul şehri, Marmara denizi.

There are two different interpretations of this in Uzbek linguistics. The symbolic and unambiguous expression of piracy is common in both languages. In the words with a pointed arrow, expressions of specificity and expressiveness are expressed, while the words with an unmarked arrow indicate the common identity. There is virtually no difference in the designated and unambiguous use of the target case in the Uzbek and Turkish languages. It should be noted that the pointer case in the Turkish language is close to that of the poem in Uzbek, the most widely used form of poetry. In comparable languages, words are used indefinitely when expressing abstract nouns, names of the months, days, seasons, and specific names of the subject in general. The undefined form of a pirate case cannot be compared with a prime contract. The fact that the contract is not affixed to the affix at all is an entirely different phenomenon. An

unspecified form of a pirate contract can be used with the symbol. So far, linguists have not come to a unanimous case on the use of orthogonal targets in pronouns. According to U.Tursunov and A. Mukhtorov, a noun or pronoun with a designated arrowhead is always used in combination with his affinity [41,68]. R.K.Kungurov shows that this is a synonymous compound, that is, a syntactic relationship [51,37].

In Turkish, the word «**kendi**», which is an alternative to the "self" pronoun, is often used indefinitely when forming an angular compound: kendi evir is my home. The Turkish add -kimay be added after the verbal case to express possessive: seninki, odaninki, babaninki. This represents an additional abstract (abstract) possessive [25,55]. Also comes as a defining noun. But this supplement does not obey the law of singularism. Therefore, it is unique. Clearly, the meaning of the Turkish -niki suffix in Uzbek is appropriate.

In place of the Turkish target, the form of ancase in Uzbek may be used in the following way: Gelmek misafirin elinde, gitmek hane sahibinin elinde— Coming from guest, going from host. These variants were subsequently reduced as a result of the ellipse in the article. But they have maintained different forms of compromise. Given the mixed use of and derivatives in the old Uzbek language, the process of generating the suffix from the Uzbek proverb becomes clearer. In addition, the weakening of the form of the suffix in this article is related to the perception of the article. When it comes to expressing step-by-step movement, it is logical to use it in logical terms. In Turkish, it is common to use the inversion form where the word-by-word combination is changed. This can be seen more often in cases of personality disorders: Ви kitaplar sizin mi?

Some linguists consider the extended compound as a complex compound-type form of extended compound [20,30]. The irreconcilable use of the word colloquial in Uzbek is that in the pronouns it is followed by a consonant affix when it is added to the plural formulas: менингдек, сизнингча. In this case, the contraction affinity is syntactically neutral and the syntactic linkage is not expressed. In terms of shape, this type of construct is equivalent to an auxiliary relationship with an independent word. For example:Сенинг каби— just like you. In Turkish, such compounds are not added to the compound, but are used instead of a complementary agent: For example: Biz gibi soğuk. Occasionally, supplements such as --ca, -ce are also used. For example:sence, bence, arkadaşça. Accordingly, some Turkish linguists link the use of these additions to the consensus of **kimce(eşitlik) case** [7,330] (in Uzbek there is no equivalent). The –ning affix case can be used in Turkish as in Uzbek, with noun, pronoun and other. -ning affix case consensus is the only consonant that is not bound by a verb in the system of transformation. This is one of the main features of it. Some linguists deny the consonant nature of the case, assuming that the verb concession is not related to the verb, always related to the category of possessive, and to coexist with it [27,66]. For this reason, they also suggest that it should be excluded from the diversification system [27,67]. However, this form of noun does not correspond to the traditional beliefs about compromise with its features; it is wrong to exclude it from the list. Because the thiscase, for the rest of its terms, acts as a syntactic link between words, as do other consonants.

Consequently, this case is a contract that binds nouns in modern Uzbek and Turkish. It has distinctive lexical-semantic, morphological-syntactic features that are totally different from the category of possessive. Compromise and possessive forms are commonly used grammatical categories.

The word arriving at the verb expresses the action taken by the verb, expresses the action taken directly to it, acts as a complement to the sentence [8,81; 52,36–39], and is always linked to the transitive verbs. In the Uzbek literary language, this is the main morphological variant of the consonant affix, which has been analyzed in a number of studies [47,142]. In addition to the variants of the case, there is also a morphological index that is added to the basis of the individual personality I and II together; like мен-и, сен-и.

The form of tushum case is typical of modern Uzbek [42,41] and is used only in poetry. It is known that this form of revenue receipts in the old Uzbek language was obtained by the addition of the third person's possession (оғлын, баримын, сусин, илин) [42,77]. In live vocabulary, this syllable suffix is also used in syllables in -ны, -ти, -ты, -ди. The poem -n form used in the poetry of revenue is similar to the -n form of the arrow. [50,43]. In both Turkic and present-day Uzbek, the affixes of the third syllabus are added after the third-party affixes, indicating that possessive is a relatively stable category. There is no such form in Turkish. Old Uzbek and modern dialects use the form of receipts –и, –ы. The similarity of the Turkic languages to the Oral group is shown in R. Kungurov's research [50,43]. In speech, poetry is used both explicitly and implicitly by agreeing to the weight requirement.

Frequently, in the oral language of the Uzbek language, the revenue arrivals are in the form of a consonant with the affixed affix. For this reason, some linguists consider the coming of revenue and target as one. The noun in the revenue case refers to the subject, the person who always takes the action. The object represented by the case (non-complementary) is used only when the object is explicitly used, and when the object is uncertain, the head consensus is used instead of the yield case. This situation is not unique to Uzbek, as some researchers have noted [50,57]. It is also worth noting that, unlike the consensus, an indirect revenue case is used without the means of complementing the possessive and plural suffixes of nouns such as nouns, quality, pronouns, and numerals. Comparative evidence shows that in Turkish, the terms of time and place are used in arrivals and departures. This means that there is some difference in the relationship between the category of compromise in Uzbek and Turkish. For example: Kapıyı geçmek - going through the door; Sınıfı geçmek - The meaning expressed by the receipt of income, such as moving to the classroom, is influenced by its symbolic and non-formal use. A definite revenue arrangement informs the speaker and listener about what is already known and highlights it. And an inflow of uncertainty generally represents this type of event. Sometimes there are cases when the word used in the sign of revenue is used interchangeably with the verb to which it is used. As a result, the two pieces form a whole, giving a definite idea of one action. Thus, the revenue streams in the Uzbek and Turkish languages are common in terms of representing the object directly involved in the movement.

According to the law of singularism, the suffixes of the Income (in Turkish) are derived from consonants to the basis of the consonants: –и, –и, –и, –и; The suffix ending with a vowel is added as –ы –и, –и, –и and after the third person affixes, the –и, –и, –и, –и are used. In English and in Turkish, the suffixes are added to the following categories: noun, pronoun, throwing adjective, jumping adjective, jumping number. In this case, there is a difference in the use of the revenue generation form in the modern Uzbek and Turkish languages. That is, the meaning expressed by the proceeds in Turkish is given by the addition of the referral case in Uzbek. However, in most scientific studies, it is thought that revenue is far from a destination, and they cannot be interchangeable. [50,55] The analysis has shown that collisions have such additional meanings

and grammatical properties that one can use the other instead [47,86]. Such cases are more common in the Uzbek and Samarkand languages. A.Gulyamov interprets this as the “inner closeness” of these cases [52,55]. Therefore, the disposition and the disposition of syllables with their additional meanings and features can form a synonymic relation in separate lexical-grammatical conditions: for example, Гапингизни тушунмадим. Гапингизга тушунмадим (I do not understand what you mean. I don't understand).

It is well-known that the combined use of receipts and outputs forms a greater expression of the relationship between the whole and the part. This is due to the different meaning relationships between words. If it is understood that the action taken by the pastoral verb is not complete, and that it has been transferred to a part of it, then the form of the consonance in place of the affidavit of the proceeds shall be used.

The grammatical features of the reference case, its meaning and functions, functions in ancient Turkic and Old Uzbek languages, and its use have been studied in a number of cases. In particular, in the study of the Uzbek linguists A.Gulyamov, R.Rasulov, M.Mirzaev, K.Karimov, M.Shoinoyatova this scientific casewas deeply analyzed.

The verb, which leads the nouns in the direction case, always refers to the action, the mood, [29,37]. It is known that the reference form is formed by affixing it to the shape of the consonant, and it is used in the form of -га, - depending on the sound at the end of the word -ка, – ка. Some literary sources on Old Uzbek speak the language -не whatever the form. Some dialects of the present-day oral dialect, as in the old Uzbek language, use the– не, -на form [1,82]. Колхоз овулина бориб киргандай... (F.F.). The adjective consonants are also found in the classical poetry in the form of -а. Linguists BA Serebrennikov and A. Menges believe that these affixes -а - as "ancient pointer affixes" - together with -к form а -ка affinity [45,37]. But this scientific analysis has not been proven. In fact, -а affinity is common to most Turkic languages. For example, in Gagauz: бана (менга); сана (сенга); она (унга); in Kirghiz: мақа, сақа, ақа. In the old Uzbek literary language it is often used to refer to words ending in the form of possessive - with the affixation of a verb to refer to. Ancient Turkic, from the time of the old Uzbek language, has been synonymous with the arrival, departure, revenue, chief consonants and assistants. According to AN Kononov, "The general consensus is in the functional closeness of all consensus" [26,91]. In speeches, the compound in the contract of departure may be used as a reference to the arrow-shaped compounds and used together. But these compounds do not provide a permanent spirituality. Their role in the context is important in their approach to spirituality. Because language and speech are always interrelated. Many events are detected during speech. It is therefore justifiable to classify them as compounds that create a continuum and only contextualize [42,81]. There are different views on this subject in Turkology. According to A. Gaben, the arrival of the departure was worn by the ancient place of arrival [43,36]. E.Sevortian also states that the arrival and destination of departure are expressed in terms that are closely related to each other [33,176].

In Turkish: Bana sor! - Ask me! Onasor - Ask him.

The main features of the Turkish Directional Arrangement (Yönelme halı) are as follows: a. The terms of the reference case can be included in all categories of words in Uzbek and Turkish. It is well known that at the point of departure the noun represents the subject to which the action is directed. The word role in the directional case is the directional direction of movement [1,34].

Apart from the meaning, such meanings can also mean such things as imitation, imitation or conversion [18,113].

In the Uzbek language, if a single noun repeats itself twice, the first being the exit and the second with the departure case, it means the repetition of the cross-sectional movement, which lasts for a long time, and sometimes turns into a double rotation. The function of a referential case is a complementary, that is, an "in" substitute in the expression of co-existence. Some linguists believe that auxiliary constructs have a clear, definitive meaning [41,288], while others say that meaning is more concrete in conciliatory constructs [13,369]. Turkish examples also prove that the second point is correct. In both the Uzbek and Turkish languages, "auxiliary aids, such as the noun in the arrival case **қадар-kadar**, **кўра-göre**, **қарши-kaşşı**, **қараб-doğru** are used. In English, supporters like «қарши», «қадар», «кўра» require constant referral. If these auxiliaries are used without a referral form, then the meaning of space and location is different. In Uzbek, the directional contraction forms a joint affix with the affix-affix and forms the boundary meaning with the "to" load [26,308]. However, it is not clear whether the "to" aide in Uzbek or Turkish is a burden. Because "to" like other downloads comes first, not after the word itself. It should be borne in mind that morphology, syntax, and grammar, in general, play the role of each word in the sentence.

In the Turkish language, there is a prefix "ta" to enhance the meaning that is understood through the aid of the **«kadar»** [25,55]. Consequently, the arrival sequence, which is typical for all Turkic languages, is not only an action-oriented subject, but also a number of grammatical meanings.

Grammatical features and meanings of the modern Uzbek language in linguistics have been well researched [52; 36,65–85; 6; 43]. Nevertheless, it is advisable to focus on the controversy among the experts regarding the category of compromise, and in particular on time. Linguists like A.Gulomov, E.Fozilov, U.Tursunov, A.Mukhtorov call this case a place of origin [41,292], N.Dmitriev, A.Kononov, V.Reshetov, E.Sevortyan Scientists like S.Ivanov and F.Ishakov call it a place of residence [36,65–85]. Turkish scientist T. Banguoglu also calls this case *seyon halı* [7,328]. In our opinion, the second opinion is relatively limited, since the suffix also plays an active role in the formation of the meaning of the time. In modern Uzbek, the language is an affinity for time, and our ancient language is expressed in words, in verbs, in verbs, in verbs, in verbs, in words, ending with vowels and consonants. Although the modern-day dialect of the present-day Uzbek literary language is spelled out in the dialect, its historical forms are preserved in the nation-wide language: *кишта, иштэ, ўйдэ, тойда, колдэ* [42,87]. Under the Turkish law of singularism, the indication is that there are hard, soft, melodious, jarring variants. That is, both its orthographic form and the orthoepic form have four: **-da, -de, -ta, te**. Some publications have also interpreted the place of time as "Kimda's state" and "The condition of the castle." In Turkish, place-by-case case is also used with the suffix: *Tar 78 yaşındayım* - I'm quite seventy-eight years old.

This situation is characteristic of modern Uzbek poetry, and in the old Uzbek language it is common to see the increase of the third person before and after the arrival of the third person. In modern Uzbek, it is added to these syllables by adding this consonant. As for the Turkish language, it is typical of an increase. According to the linguist A.Borovkov, the rise of the genus

belongs to the eastern group of Turkic languages [5,29]. In the English language, the verb affinity may be synonymous with other consonants and facilitators.

In Turkish, the meaning of the onset of displacement is used with the meanings of o`rin-payt case, and is not used in conjunction with auxiliaries [20,52]. It is noteworthy that instead of the Uzbek language being used in the dialects of Samarkand, Bukhara, and Kattakurgan, referral is used. In some Turkic languages, such as the ruby, there is no special indication of the time to come, instead it uses ao`rin-payt case. The fact that each consonant expresses different grammatical meanings in its place depends, of course, on the context. The verb that comes with the alternating nouns represents the movement that takes place at a particular time and place [29,38].

It is noteworthy that the use of the numerical term in Turkish in the Turkish language is more commonly used than in the Uzbek language. Especially noteworthy is the fact that the o`rin-payt case is dated by years. In the Uzbek literary language, the suffix addition does not directly add to the numerical order. It often comes with the words "year" or month names. The absence of the word "year" in such compounds may alter the meaning of the sentence. In Turkish, the place-to-date supplement can be added directly to the year count. In Turkish, decimal numbers and percentages are also in place. This situation is consistent with the emergence of the Uzbek language: four (3/4) - three-fourths, five-fifths 5/100 - (5%) - five percent. The fact that it is located in both Uzbek and Turkish is of the same morphological and syntactic nature. The alternating noun represents the place, time, conditions, condition, cause, and purpose of the action. The meaning of the occasional arrival in the Uzbek language, which represents the subject that will be used to perform the action, is also used in the Turkish language. Such a change in the word in Turkish is interpreted as a separate consensus "with someone yet" [7,113]. Rakhmatullaev says that "in" affinity with the "with" associate is synonymous with the meaning of "co-existence". The displacement, both in Uzbek and in Turkish, represents both grammatical and spatial meanings. Therefore, it is not possible to limit the scope of the expression by treating it as an case of space. Peculiarities of the Periodic Arrival in both the Uzbek and Turkish languages indicate that this case can only be viewed within the context of space case [20,85]. not right. Consequently, we believe that the meaning expressed in the grammar is disconnected from the text, and that the meaning of the text is not always consistent. Semantics and syntax are not equal [20,89]. As semantics occur in syntax, new semantics can also be created.

The origin of the case was an case that arose during the later stages of the development of the Turkic languages, and the language of the ancient Turkic Orkhun-Enasoy monuments was not an indication of it. The function of the output case was performed at that time, from time to time [12,61]. This arrangement was an independent form influenced by classical Uygur literature, and in the old Uzbek language its suffixes were from **-ден, -дан, -тен, -тан, -дин, -тўн, -тин**. The word in the output case expresses the meaning of the form and of the subject, such as the starting point, the starting point, and the starting point of the position [23,35].

In Turkish, both the spelling and the orthographic forms of the verbal form of the four forms: **-dan, -den, -tan, -ten**. This is, of course, an incident related to the Turkish singularism law. The output case is practically indistinguishable in both languages. In Turkish this term is referred to by some linguists as «Uzaklaşma durumu» [15,127].

There is also an increase in the addition of third-party possessive in the word that came in the old Uzbek language. It is mainly used in classical poetry. In fact, this is only the case for languages belonging to the Oral, Kipchak groups. In the 3<sup>rd</sup> person, -n is the most pronounced [4,150]. The researcher, in our opinion, used the word "infix" in the conventional. This affix, which is characteristic of some of the Indo-European languages (for example, Latin), has a grammatical function. In Turkic languages, including the Uzbek literary language, it does not perform such a task. Such use is found in historical texts, but is now used only in the language of poetic works and in some dialects. However, the use of "n" in modern Turkish is considered normal. For example: A.Gulyamov noted that in this case the suffix -n is added to ensure harmony [52,65]. In both the Uzbek and Turkish languages, the suffixes can be linked to the words in all categories. There is practically no difference in the morphological and syntactic features of the origin of the Uzbek and Turkish languages. In some cases, however, the Turkish version of the place of origin in the Uzbek language may be used as a replacement: onda bir– one in ten; yüzde beş– - like five percent. The meaning of the Turkish origin of the contract can be expressed in the form of a referral case in the Uzbek language: Benden muhtaçtı - I needed it. (Ch.). In the literary language of the Uzbek literary words, the words that come from the Turkish word consonant are kept meaning: I know you are offended by me –Biliyorum, kızılıyorsundur bana.

In some cases, the combinations represented by the origin of the Uzbek language are given in the Turkish revenue stream: The grandfather may have been over seventy (S.F.). - Baba belki yetmişini aşmıştı.

The addition of the origin case in the Uzbek language represents different meanings in the history of Turkic languages [52,66]. Although it is the youngest Turkic language in Turkish, it is remarkable for its importance. Both in Uzbek and Turkish can be synonymous with each other, creating synergies with keywords in the emerging consonants. When the polar and outgoing combinations of speech form a synonym, the subordinate consists of the nouns, which represent the sum of everything that can be numbered. Linguists have differed about the interchangeability of these two terms in Uzbek [47,233].

The output case can connect nouns in both languages. However, unlike the Uzbek language, the "after" assistant in the Turkish language is in case when the number is: İki saat sonra– after 2 hours; beş gün sonra– five days later. It is possible to say that striving for smoothness in the development of language and avoiding duplication can lead to the emergence of spirituality, with the use of spatial combinations in speech. Exodus case, as some linguists in Turkic languages have pointed out, [13,131; 34,176; 45, 64], not only expresses spatial meanings but also expresses grammatical relations. It is well known that when the Turkish language comes to the form of a consensus, this suffix will lose its function and become solid within that word. The same is true in the Uzbek language: зимдан, қўққисдан, тўсатдан. Most of these lexical units have lost their independent meaning today. But in Turkish, the suffix is still active as a word-for-word element in this task. It acts as a word maker, away from its usual word-changing function.

Apparently, the origin of the word is more broadly expressed in Turkish than its semantic surroundings. In modern Uzbek this meaning is realized through other grammatical means. It turns out that comparative study of Turkic languages helps to clarify the possibilities of their grammatical forms in speech. The morphological and syntactic features of the modern Uzbek and Turkish compromises are complex. It is not appropriate to classify these languages into two

types: grammatical and spatial. First, this classification is not compatible with Uzbek and Turkish. This is because grammatical relations represent spatial and temporal relationships, and spatial arrangements represent different grammatical relationships such as cause, effect, and purpose. Secondly, such grouping does not take into account the main syntactic functions of the words, they do not take into account the function of the words that receive the suffix affixes in the sentence. Third, such grouping does not make sense: there is no out-of-existence, just as there is no space outside. In our view, the classification of contractions as nouns that link names to verbs and nouns corresponds to the main purpose of grammar. In this case, the consensus remains neutral for both groups as the initial form. Nouns that deal with names are those that associate a noun with a noun, and in particular, ancase that represents a relationship. Nouns that bind nouns are verbs that link names to verbs. That is, the managerial attitude in them is governed by the basis of another word [37,71].

Although the category of case is widely studied in turkology, including Uzbek and Turkish linguistics, some issues related to it are still controversial. In Turkish linguistics, the suffixes **-le**, **-ca**, **-li**, **-siz** are included in noun-additive supplements [25,67]. There are also linguists who consider such affixes as annular additions and call them 'keliks' [7, 329-331]. For example, kimce hali is still a noun-like equation, which is a compromise of equality [16,85]. This compromise is sometimes referred to as the «Eşitlik»– "Eternal" case. In Turkology, the suffix --ça (-ча) is considered as a distinct affix. This is apparent in the fact that some linguists are unable to judge firmly that many additions are neither consonant nor to other grammatical categories. Nevertheless, in Turkish, this supplement is active in generating the following grammatical meanings:

1. The plural adds to the meaning of the exterior: Peyami, o ince yapraklar, ince satırlar üstüne yıllarca kapandı (Y.Z.O.). - His poems have worked for years (for years, years) on those thin sheets and fine lines.

Çevrede yüzlerce insan vardı. - There were hundreds (hundreds) of people around.

Milyonlarca insan susuzluktan kavruluyor bu şehirde. – "Millions of Southerners are suffering from thirst.

2. Attached to the nouns that represent the time, equality means continuity: Bı küçücük dükkanda yıllarca çalıştı. – This man has worked in the grocery store for years (all year).

Günlerce aç susuz beklediler. – They were hungry and hungry for days.

Gelmenizi saatlerce bekledik. – "We have been waiting for you for hours."

3. It represents unity: sınıfça karar alındı.– Decided by the class.

Bugün milletçe sevinmeliyiz. – Today the whole nation will be glad.

Onlar ailece gelecekler. - They come with his family.

4. Describes the status: Konuşulanları gizlice dinlemiş. - Listened secretly to what was said.

Sessizce dışarıya çıktı. - She went out without a Sharp.

5. Shrinking, meaning restricting: Ön sıralarda şişmanca bir çocuk oturuyordu. – At the front, an inflatable young man was sitting.

Arabalar büyükçe bir binanın önünde durmuşlardı. – Cars parked in front of a large building.

Çocuk irice bir taşı eline aldı. – The boy took a large stone.

6. Creates language names: Arapça, Türkçe, Rusça

7. Make animal nouns: Karaca, Kokarca.

8. Make place Names: Çamlıca, Taşlıca, Ilıca...

Although the affix is widely used in Uzbek, it is not included in the consensus in Uzbek linguistics. Here are some of the approximate and dramatic differences in the Uzbek and Turkish languages:

1. Plural; The word exterior is in Uzbek: hundreds, thousands, millions. That is, when multiple affixes are added after the plural suffix, there appears to be a great deal of harmony, even coherence, in both languages. However, in Turkish, such meanings are expressed without the addition of **-lar (-ler)**, but only through **ça(-çe)**: dağça(тоғларча), insanca (инсонларча).

2. Expressing the meaning of continuity with the plural nouns associated with the notion of time is active in Uzbek: as for years, йилларча, ойларча.

3. The suffix **-ça (-ча)** is added to many names in Turkish and expresses the common sense, but this supplement can only be added to a few words (бўйича, бутунича) in the Uzbek language, meaning its use in Uzbek is relatively limited. we can say that.

4. In Turkish, the term is used more frequently in the Turkish language than in Uzbek. In the Uzbek language, this supplement can come in the form of яширинча, бутунлигича, тўлалигича, яхшилиқча (the word is most commonly used in our speech), as well as in words such as ўғринча. In the Uzbek language, it is distinguished by its adhesion to the base, whereas in Turkish the affix can be attached to both the base and the base.

5. In the Uzbek language, there is a word that is used not only in Turkish but in the same way as in Turkish. Such words are rare in Uzbek. The well-known Turkish linguist M.Ergin noted that the Turkish-Turkish suffix is also used in the sense of simulation and restriction. «Eşitlik eki sahasını daraltınca onun yerine de yine edatlar kullanılmaya başlamıştır. Bunlar **gibi, göre, kadar, sıra** edatlarıdır»[37,71] Continuing these comments by Professor Muharram Ergin, we can say that the use of «**каби**», «**кўра**», «**қадар**» in the Uzbek language has greatly narrowed the scope.

6. In the Uzbek language, as in Turkish, the **-sa (-a)** suffix is added to the names and expresses the same language. But in Uzbek linguistics, many words are interpreted as counterfeit rituals: ўзбекча, хитойча. In Turkish, these words are nouns: Özbekçe – Uzbek language, Türkçe – Turkish language.

Another case in the Turkish language is kimle hali the case of the noun and the cooperation of the noun. This additive, which is not stressed, is a relatively lateral form of contraction, squeezing out the suffix of **-in (-un)** in ancient Turkish and replacing it [ayağ-ın, ayak-la (by foot). The existence of this variant in the ancient Turkic language, first of all, indicates that the «**бирле**» is an indication of the meaning of co-existence with [35,83]. These two additional languages are also used as one unit in Turkish: gözlen (with eyes), korkulan (with fear); -from nouns ending with **-n**, takes the form: **-nantren-nen**(with tram), **-kadın -nan** (with wife).

Although there is no alternative to this consonant form in the modern Uzbek literary language, it is evident that such a grammatical meaning is not alien to the Uzbek language, and the adjective "in" in the Uzbek literary language is often used as an affix-**минан**, **-ман**. The history of our language and poetry have a similar form in modern Turkish. It is a form of "by" (compare "The servant with the rich"). In general, it can be seen that in the 30-40s of the 20th century it was widely used in literary language, especially in poetry. In our view, it is wrong to attribute the widespread use of the suffix to the Uzbek literature with the influence of Ottoman Turkish language and literature at that time. For many centuries, our written literature has been used in the form of a «била», «ила», «илан» and «ла». Thus, the Turkish language - both Uzbek and Uzbek - is a common source, which is widely used in Turkish in literary language and live speaking, while the Uzbek language is only artistic.

In the Turkish language there is also a noun, **kimli** «iyelik» which means "to possess" or "to have". It is an accent and it means possessive and something. This compelling word is used in place of adjectives and adjectives in the sentence [7,331], which differs from the word "li" in the Uzbek language and forms a combination with the verb. For example: haberli gitmek – be aware, şapkalı oturmak – sit on a hat, giyimli yatmak – like lying on trousers.

Sometimes who and who agree with each other in meaning. Compare: arabalı gitmek – go in the car and arabayla gitmek – go by car;

In the Turkish language, the identity of the noun is contrary to the meaning of identity as a compromise that denotes the absence of nouns. The following statement by A. Kononov confirms this: - in the sense that it has no affinity, it is opposite to the suffix, on the one hand, and with the addition of -ile, to -la on the other. [25,67]. The one that comes without it is an additive [7,68]. In Turkish is often used for adjectives: akılsız (foolish). Obviously, although they have been described to some extent **kimce**, **kimli**, **kimsiz**, **kimle**, the morphological-syntactic and lexical-semantic features have not been studied, and their specific features as consensus have not been sufficiently substantiated. In our opinion, who should be included in the Turkish compromise system should not be included. Because these additives are mostly adjectives, their formative activities are passive. **Kimce**, **kimle** the suffixes of **-ce** and **-le** are a very useful addition to the Turkish language, which serves to facilitate the relation of nouns with other words. These terms link a noun to a verb [25,73], and have different meanings in the sentence. There are different views in the field of Turkology on the suffixes with and without. In Turkish and Tatar linguistics, the **-ли** and **-сиз** the-syllable affixes are interpreted as consonant supplements [17,207]. In Uzbek linguistics these additions are often referred to as polyphonic affixes [49].

Thus, it is reasonable to leave the **kimce**, **kimle** pronouns in the modern Turkish pronoun system and exclude the **kimli**, **kimsiz** pronouns.

## DISCUSSIONS

There are also controversial issues in the modern Uzbek compromise system. The reason for this is that suffixes such as, -гача, -даги, -дек (-дай), -никан can be added to different nouns and express the grammatical meaning. These additions are a syntactic reaction to the nouns. Therefore, it is worth mentioning these affirmations. Nematov's analysis of the Uzbek language pre-consonant system suggests that the words used with this sophisticated suffix should be considered «черара келишиги» [30, 27]. We also compare whether this affix forms a distinct consonant in Uzbek, depending on the semantics and function of the Turkish suffixes, the three.

As we have seen in examples such as *Бенце*, *insanca* in Turkish, it is used in the sense of restriction. That is, we can see that by means of the suffix, the meaning of the constraint is formed without the addition of the origin. There is also a difference in the meaning of limiting affixes in Uzbek and Turkish. While it is not customary to use the Uzbek language without other word-altering and formative additions, this phenomenon can be directly attributed to the Turkish language: it is, in my opinion, human. From this point of view, it is possible to say that in the Uzbek language the meaning of the delimitation has been added to the form of a consensus order. However, it should be considered that the suffix meaning in the add-on has been lost. By then, the **-рача** <**-га** and **-ча** are purely etymological, and their present condition is only **-рача**. Although prof. Nematov did not agree with this, we support the fact that Turkic languages are a form of compromise. This is confirmed by the fact that the pre-suffix is able to express the grammatical meaning of the border by joining almost all of the noun words.

### CONCLUSION

The peculiarities of using consonant forms in Turkish are:

1. Some words contain consonant forms. Ancient forms of compromise are still present in some words: *иçрă, ўзрă, иçкăри, таşқарı*.
2. Two different forms of contracting are added to the stem: *мениўچă, илăрў*.
3. Arrangements are made in various phonetic variants depending on the rigidity of the word stem. The word that came with the addition of the word sometimes has phonetic variation (*аға, аларнı*).
4. In some Turkic languages, the personal pronouns are stored as a suffix. For example, in the Kazakh, Karakalpak, Khakas, Kyrgyz languages, the pronouns of *маға, сағаң, ғаң*, are used in place of *-äcase*.
5. Ancient monuments have a tool case: *-in, -in*. This case is found in some of the words currently in use in the Turkic languages category: *аçın -тоқин, йазин –кışин*.

Based on our comments on the Uzbek and Turkish compromise system, the following conclusions were reached:

1. The category of case is one of the oldest categories in the Turkish grammar, which is widely used in the interrelation of words. There is no consensus among the linguists about which affixes are forms of consensus category in Uzbek and Turkish. In particular, the forms of **-ча, -ли, -сиз, -ла** are included in Turkish linguistics, while in Uzbek linguistics it is a form of word-for-word, sometimes used in the linguistic form, with the suffix "and". That is to say, there is more variation in the interpretation and interpretation of language than the difference in language facts. The fact that the treaties are a complex morphological-syntactic category is the basis for such differences.
2. As regards the forms of consonants, based on the facts of Turkish and Uzbek languages, it is possible to say that the forms in Uzbek literary are the same as those of Turkish literary forms. The Uzbek literary language has escaped singularistic variations as a result of the loss of singularism, preserving a predominantly Turkic form.

3. There are controversial views on the size and scope of the treaties both in Turkish and Uzbek linguistics. Recent research shows that the number of compromises in the Uzbek language is not six but seven, including border delimitation. Given the function and meaning of the suffixes **-дай** and **-дек**, it is clear that this quantity is not the last.

4. The comparable headings in these two languages are the same as in all the nominative languages of the world, and these 0 forms are considered to be consonants and serve as the basis for other compromises. The emergence of a prime-time noun in compounds such as "The work is written" is an indication of the fact that in both Uzbek linguistics and Turkish linguistics, language grammar has become independent of logic and increased attention to grammatical form.

There are some differences between Turkish and Uzbek linguistics in determining the general consensus form. In particular, the Turkish linguists believe that the words Istanbul and yatak are in the form of consonants in the compound (also called an isophic compound), such as the İstanbul şehri, yatak odası (Istanbul, the bedroom). Although in Uzbek linguistics it is not objectionable to call them superfluous compounds, however, these words are not considered to be consensual. At the same time, Turkish linguists approach the grammatical form and derive from it, while Uzbek linguists rely more on meaning.

5. In both languages, the use of the word consonant with auxiliaries is common. Given that the Turkish language contributors have a consensus category, it should be understood as if one word simultaneously adopts two forms of case. Although it is considered normal for two languages to function simultaneously in one language, there are exceptions (such as бириси, ярмиси). Thus, we believe that the auxiliary form of the general case can only be explained by this exception.

6. It is a compromise case between Turkish and Uzbek that is closely related to the possessive system. Possessive is the second system in the language, and both tendencies are normalized in the form of possessive. The form of possessive, in turn, requires a cutter. This can be seen as a clear indication that the systems in Turkish grammar are interconnected.

The noun in a pirate case is the only one that cannot be directly linked to the verb. However, this is not a reason to deny that it is not a form of compromise. Because the form of the verb concatenation expresses not only the affiliation, but also the possessive, which does not allow it to be directly linked to the verb.

The genetic similarity of these two languages is even more apparent given the fact that the present Turkish version of the Karatase is typical of the history of the Uzbek literary language. It also shows the roots of the use of the form in the modern Uzbek language.

7. There is no significant difference in the opinion of Uzbek and Turkish linguists regarding the uncertain use of receipts, departures and periodicals.

The addition of the **(-i)n**, **-a**, **-ya** in the Turkish language can be considered as the difference between the receipts of arrivals and departures in the Uzbek language. However, it should be noted that for Uzbek, the **-и**, **-а**, **-йа** forms are not alien, and we have these additions in our previous literary language and present-day dialects.

8. In the Uzbek and Turkish languages, the use of one (ишингизга муваффақият, ишингизда муваффақият) is common. However, this exchange occurs not in any compromise supplements but between compromises that are close in meaning and function.

Achieving commonality in the classification of Turkic languages, in particular in Uzbek and Turkish, is one of the important factors in the grammar development of the national language.

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## WRITING AND ORTHOGRAPHIC RULES - THE BASIS OF LANGUAGE DEVELOPMENT

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### ABSTRACT

*The article is devoted to the description of the history of Uzbek writing. It provides review alphabet on the basis of the Sogdian, the Runic, the Arabic, the Uyghur writings. The author systematically analyzes writing systems of the Uzbek people that were used from ancient times up to date according chronological sequence, gives general review of specific characters of each letters. A huge historical sources of the Central Asia were written in several writing systems and each of them had own evolutionary way of prosperity and disappointing. Due to political and social conditions the Uzbek alphabet was changed for 5 times. The influence of Arabic traditional writing to Uzbek writing is described in the article. Sounds and symbols (letters) of the Arabic alphabet are determined. Uzbek sounds are divided, and their peculiarities in writing are shown. Orthographic features of Uzbek writing according the Cyrillic and the Latin are explored ordinarily. The system of orthographic rules and the peculiarities of the group of the letters with the different orthographic features are explored.*

**KEYWORDS:** *Alphabet, Analyze, Runic, Uyghur, Sogdian, Arabic, Cyrillic, Latin, Turkic, Chagatai, Navai, Babur, Genghis Khan, Central Asia, East, Middle East, History Of Writing, Writing System, The Article, Symbols, System Of Orthographic, Spelling Rules, History Of The Uzbek Writing.*

### INTRODUCTION

Writing is a means of transmitting one form of speech. It appeared in the history of mankind by social necessity at a certain time and improved with the development of society. Writing is one of mankind's greatest cultural acquisitions after language.

The appearance and development of writing is determined by the development of society, its cultural degree, political and legal, and the aesthetic side, as well as the need to transfer cultural heritage. Written speech performs a communicative, emotionally expressive, accumulative function. Directly, through language people enter communication, transmit information, have information about past events, people, traditions. Through writing, the possibilities of transmitting information about cultural monuments, historical events and moral heritage to the future generation are expanding.

The aim of the article is to explore writing and orthographic rules as the basis of language development in the example of formation writing system of the Uzbek language from ancient times up to 2000s.

### **Methods**

The methodology of the present research is defined by the complex of methods of comparative-typological, comparative-historical, structural-semantic analysis, as well as principles of hermeneutics (interpretation of the text) and methods of literary analysis of the text.

### **Data, Analysis, and Results**

Speech expresses all capabilities of the language. Speech has written and spoken forms, written speech is performed through writing. Writing became an important part of communication in a certain historical duration. Writing was invented five thousand years ago, it is the most matchless discovery of the people that carries a huge date about development of society, its history, culture, traditions and world civilization. The following points historical importance of writing:

1. In certain historical periods, writing was evolved and served for social demands as communicative facility between human societies.
2. Writing carries a completely spiritual heritage of human society.
3. There is no limit of time and distance for writing.
4. Dates from all over the world become common for everyone owing to potential of information transfer of the language.
5. Writing has importance in the studying of human society's development stages, history of peoples, ethnography, history of literature and arts, language development stages. Studying development stages of the language and people is not possible without written sources.

Only some languages have their own writing system. The current form of the writing appeared after long period of development of their first forms. Writing has own history of improvement. Studies have shown that the first forms of writing appeared as emblematic symbols. There are several types of writing: pictographic, ideographic, logographic, hieroglyphic, phonographic. Graphic characters are the main form of writing. Pictographic, ideographic, hieroglyphic signs are one of the first types of writing. After them, a phonographic letter appeared, i.e. in the beginning some syllables, then some sounds were indicated by some sign. The formation of phonetic writing is associated with Phoenician writing.

The peoples came up with - Latin, Armenian, Georgian, Slavic, Arabic versions of phonetic writing. Ancient writings were written first on stones, bones, on wood, on reeds, then on parchment and on paper. The letter is read from right to left, left to right, from bottom to top.

“The study of the relationship between writing and language is an important theoretical problem of linguistic science, and in modern linguistics there has already been a clear separation of the two linguistic directions, such as: “Phonetics and phonology”, which studies sounds, i.e. phonological system of language, and “Grammatology” or “Graphic linguistics”, studying the problems of writing, various kinds of alphabets, history of writing, etc.” [1, 9]

There are more than 7000 thousand languages in the world, some of which do not have their own writing. Many languages used several types of writing. A change in writing affects the development of a given society; it is associated with objective and subjective factors. In fact, the following writing systems are used by world languages:

1. Latin Writing Systems. This system is used by more than 30% of world's population.
2. Slavic Cyrillic Writing Systems. Users of this form nearly 10% of world's population.
3. Arabic Writing. More than 10% population of the world use it.
4. Indian Syllabic Writing. It is used by 20% population of the world.

Information about the tribes that lived in ancient times on the territory of Central Asia and their cultural life, language and writing came to us directly from the works of Greek, Persian and Chinese historians, as well as using text inscriptions on stones.

The Great Silk Road was at the center of socio-economic relations, introduced all the cultural traditions of the Turkic peoples. The connecting link of the cultural competence of all Turkic peoples is the development of the writing of the peoples of Central Asia, which since ancient times has been a center of culture. The peoples of Central Asia went further and used phonetic writing, i.e. alphabet where each sound corresponded to a letter.

The first, the main writings of the ancient Middle East were cuneiform, Egyptian and Semmitic letters. In the 6th – 4th centuries BC in the territories near Iran Of Central Asia, cuneiform writing was considered an official letter.

Based on the Semitic letter, the Indian letter and all Aramaic letters of Central Asia appeared. The Aramaic script was used by Persians in documentation. In some places, Aramaic writing was used in diplomatic relations, since this letter was much simpler than cuneiform writing.

According to historical information, in the 3rd - 1st centuries BC, Greek letters and Karoshwere used in parallel with Aramaic writing.

At the end of the 17th and beginning of the 18th centuries, samples of religious-mystical writing were found in the excavations of East Turkestan. On some household items, the Tochar letter was found, on the basis of which the Pahlavian letter was formed.

In 1956, the Mongolian archaeologist DorjSuren in the village of Bugute (Mongolia) found a tombstone with an inscription. The Mongolian scientist B.Rinchen, having studied this passage of the letter, suggested it was Uyghur. Then V.A. Livshits, having studied this letter on the basis of photographs sent by DorjSuren, texts that were rewritten by S. Klyashtorn, scientifically confirmed the theory that the Bugutish letter is Sogdian.

It was believed that the relationship between Sogdians and Turks began in the 4th century, on the basis of the above monument, these relations are even more ancient. Sogdian letter samples are preserved in the texts of documents and this shows the significance of this writing.

Since the 2nd century AD, Sogdian writing began to be used. This letter was used until the VI century.

From the end of the 2nd century and the beginning of the 3rd century Khorezmshah issued money in the Khorezm letter, on the press of the Khorezm shah one could see the Khorezm letter. This letter was very close to Aramaic.

Modern science reports on the history of the writing of Turkic peoples with an inscription on a silver vessel found in Issikkurgan. It was found in 1974 near Almaty in the crypt of the ancient Saki leader. This letter is called a “hot letter” (“IssikYozuv”), samples of which were also found on the territory of Surkhandarya in southern Uzbekistan. In 1950, members of the French-Afghan expedition noticed texts on the rocks (on the territory of Afghanistan) in “hot letter”. This suggests that this ancient Turkic alphabet was spread over a large territory of the 4th – 3rd centuries BC and in the 2nd – 3rd centuries AD. It is believed that this writing was the basis for runic writing [7;8]

A similar letter, which was found in the south of Uzbekistan and in DashtiNovur, Afghanistan, has not yet been sufficiently studied on a scientific aspect.

In the 5th – 8th centuries, Turkic peoples used runic writing.

In 1982, the staff of the Institute of Manuscripts of the Academy of Sciences of Uzbekistan began the study of ancient scripts and ancient monuments on which they were depicted. Basically, they began to study Sogdian, Runic (Kuk Turk), Old Uyghur writings and ancient monuments from the point of view of philology and source study.

We can trace the changes in the letter to the examples of the Turkic languages. Their change is determined by socio-political processes.

The phonetic system of each language, which has been formed over many centuries, is a unique phenomenon that largely determines the specificity of the language. And the alphabet, the system of graphic signs, writing traditions to a large extent change under the influence of extra-linguistic factors. The alphabets of the Turkic languages, more than any other languages, have experienced this influence, mutating three times over the past only 75-80 years.

At the beginning of the twentieth century, Turkic peoples began to pay great attention to the problems of writing. In 1926, at the first Kurultai of Turkologists, which took place in Baku, the question was raised about the transition from Arabic graphics to the new alphabet of the Turkic language. And here the spelling rules of this alphabet were developed.

The conference of Turkologists, which took place on December 12-15, 1966, dedicated to the 40th anniversary of the first TurkologicalKurultai, has a special place. At this conference, questions were raised of the writing of the Turkic peoples, their spelling and terminology, and the improvement of this letter.

As mentioned above, the changes that took place in the letter of the Turkic peoples were associated with socio-political processes. First, some of the Turkic peoples from ancient types of writing switched to Arabic script. For example, as with the Uzbek people, the Tatars also used Arabic script. In the 20s of the 20th century, the Arabic alphabet was reformed, all the letters that became characteristic of the Tatar language were removed from the alphabet and new letters were introduced. Vowels were conveyed by special characters. At the end of the 1920s, there

was a transition to Latin script, and in 1938 a new Tatar alphabet was created on the basis of the Cyrillic alphabet. In modern Tatar, there are 39 letters. The letter of the Crimean Tatars was reformed several times. In the beginning, they also had Arabic graphics, then Latin, and then Russian graphics (Cyrillic).

The peoples of Central Asia, exactly the Uzbek people, in ancient times used a different writing system. In the history of Uzbek writing, one can distinguish mainly phonographic writing, i.e. sound, letter, which made up the alphabet. And also, the Uzbek people, like other peoples of Central Asia, used Aramaic, Greek, Sogdian, Khorezm, Kushan, Ephthalitic, Baklavian, Syriac, Indian, Runic, Uyghur and Arabic.

The Turkic people used different scripts. In the Turkic languages, including the Uzbek language, several types of writing were used. From the history of Uzbek writing, a specific scientific review of the following types of graphics is more accessible:

- 1) **the most ancient writings:** the alphabets of the Uzbek language on the basis of the Sogdian, Orkhon-Yenisei, Uyghur script;
- 2) an alphabet based on Arabic graphics;
- 3) the first (early) alphabet based on Latin graphics;
- 4) the Uzbek alphabet based on the Cyrillic alphabet;
- 5) the new Uzbek alphabet based on Latin graphics.

### **The oldest writings**

Monuments of the ancient period are written in Runic, Uyghur, Sogdian, Manichaean and Brahman (Brahmin) scripts. They were found on stones (for example, Orkhon-Yenisei inscriptions), leather or special paper (found in Turpan), etc. All the monuments were created during the period of the Turkic and Uyghur Khanates.

The oldest writings refer to Sogdian, Aramaic and Brahmanic writing. In Maverannahr, until the 7th century, they used runic, Uyghur, Sogdian, Manichaean, Brahmin letters. Religious works were in Brahmin and Manichaean letters, and official documents in Uyghur or Sogdian letters.

The Orkhon-Yenisei stone monuments are in Runic writing; ancient Turkic chronicles (VIII-X centuries) are in Uyghur (it is called Mahmud of Kashgar "Turkish letter"); "OltinYorug", "Maitri Smith", Buddhist and Christian religious fasti, legal documents are in Sogdian writing. "Huastuanift" is written in Manichean.

Uyghur letter was used in parallel with Arabic until the 15th century. The Vienna copy of "KutadguBilig", the copy of "Hibat-ulHakoyik", the ancient copy of "Uguzname", "Muhabbatname", "Dakhname" and "Mahzan-ulAsror" were written in Uyghur [15, 57].

Today there is the following theory about the origin of Uyghur script based on Sogdian script, Runic script based on Aramaic script.

Some scholars believe that the Turkic runic script arose on the basis of the Sogdian script, others believe that on the basis of the Pahlavian script.

Monuments in the ancient Turkic language have come down to us in Orkhon-Yenisei (Runic) and Uyghur script.

Turkic runic writing is written from right to left.

There were 8 vowel phonemes, which were transmitted by four signs in the Turkic runic chart. 29 letters of this graphic had both hard and soft options. There were no sounds “v”, “j”, “x”, “x”, “f”. In Runic texts, a colon (:) was used to separate words and phrases. The presence of multivariance consonants tells us about the perfection of the language and its syngarmonism [14;7]

Arising after Runic writing, the Uyghur script is preserved in documents and in religious (Manichaeen) books.

**Uyghur alphabet.** From the 6th – 7th centuries, Turkic and Mongolian peoples began to use Uyghur script. During the reign of Genghis Khan, they used Uyghur writing in public administration and office work.

Works dating to the 14th – 15th centuries, such as “Bakhtiyorname”, “Merazhname”, “TazkiraiAvliya” were rewritten in Uyghur script. Even Umarshaikh's letter, which refers to 1469, is also in Uyghur writing. Uyghur writing influenced the written literary language, for example, in all works before the Navai period, one can find morphological, lexical, and phonetic features of the Uyghur language.

In the Uzbek language, Uyghur writing was used in parallel with Arabic writing until the 16th century.

There are 19 characters in the Uyghur graphic, these are vowels and consonants. The Uyghur letter is written from right to left.

The Uyghur letter was completely unable to convey the phonetic features of the Turkic languages, for example, in this alphabet there were no letters that the phonemes “i”, “u” would convey. And also there is no special sign for the vowel “e”. When transmitting phonemes, the vowels **а, э, ы, ө** were used for indicating letters [12; 25].

**Old Uzbek alphabet based on Arabic script** (from the VIII century to 1929). At first, the VIII century Central Asia was captured by the Arabs. There have been changes in both social and cultural life. The conquerors wanted to trample on spiritual values, and also wanted to destroy writing. In government affairs began to apply the Arabic language and writing. As Abu RaikhanBeruni wrote about the Arab commander Kutayba: “Kutayba knew the Khorezm letter. And he tried to destroy all the scientists who knew the Khorezmian script, who knew the Khorezm myths”[9; 79].

In countries that were dependent on the caliphate, for some time, Arabic was the official language. The local intelligentsia knew the Arabic language perfectly, and scholars and writers translated works into Arabic from local languages. And this provided the Arabic language with the status of an interethnic language, as in Europe - Latin. In eastern countries, Arabic has become an international scientific language.

Despite the widespread use of the Arabic language during the Temurids, there were scholars who could read texts in ancient letters and comment on them. At this time, there were documents in the Uyghur letter.

Among the Turkologists there is no unity in the interpretation of the Chagatai language and the definition of its temporal boundaries, but it is generally accepted that it was written in Central Asia, from the XIII-XIV to almost the beginning of the XX century, was the language of interethnic communication in Central Asia. This language comes from the Uyghur-Karakhanid language. The Chagatai language is the basis of the literary Uzbek and Uyghur languages, on this basis it is sometimes called the Old Uzbek or Old Uyghur language, and writing is called the Old Uzbek script.

Arabic writing appeared in the VIII century and became popular. The word "alifbe" itself consists of a combination of the two initial letters of the Arabic alphabet "alif" and "bo" (be). Prior to the transition to Latin scripts, the entire Muslim world used Arabic script. In the 20s of the 20th century, Arabic graphics were reformed, as there were no signs that would show vowels. The "Zeru-Zabar" (signs used under and above letters) were found only in the Quran and in other religious books.

Arabic writing occupies a significant place in the historical development and culture of the life of the Turkic peoples. The Arabic letter that came into the Turkic world served the socio-cultural needs of society for more than a thousand years.

Arabic writing played a unifying role in the common cultural and historical space of the Turkic peoples. Unvoiced text in Arabic graphics could be read according to the specifics of each Turkic language (Tatar, Uzbek, Turkish, etc.). Because Turkic languages differ in the field of phonetics, primarily in the system of vowels. For many centuries this alphabet maintained the unity of the Turkic peoples, and the great literature created on this alphabet was perceived as its own in any region of the Turkic cultural world. The works created during 1000 years belong to the Arabic schedule. A whole complex of Turkic-Uzbek written monuments, these most valuable attributes of the spiritual culture of the people came exactly in the Arabic script.

On the Kurultai, which was devoted to language and spelling (December 1-5, 1921, Tashkent), along with other writing issues, the forms of Arabic letters, which are written at the beginning, in the middle and at the end of words, were also simplified. The letters ص (sod), ض (zod), ط (itki), ظ (izgi), which do not correspond to the Uzbek language, were removed from the alphabet. For the sounds "u", "o", "i", "a" special characters were highlighted. This decree was put into effect at the second Kurultai of employees of education and culture, which took place in April 1922.

The poet and commander Zakhiriddin Muhammad Babur, considering the Arabic letter to be complex, created the alphabet "Babur's letter" when he was twenty years old. The main feature of this letter is that here the vowels were conveyed not with diacritics (zer-zabar), but with special letters. "Babur's Letter" suited many, as it was created taking into account the phonetic features of the Turkic languages. This is proved by the texts that are found in the "Baburnume": Sarkhats in Babur's letters with translates to Kamran and poems about visit to hind sent by Mirzabek [3,409] Sent sarhats that were written in a letter of Babur"....

Sarkhat is a sample letter written for those who are studying a new copybook [10, 552; 13, 345]. Sarhat is an exemplary copybook used for educational purposes. Sarkhat provides

information on the development of national calligraphy. A passage about sarhat from the “Baburname” gives us information about the use of the alphabet “HattiBaburiy” (“Babur’s letters”) for some time.

The 2002 edition of Baburname refers to the existence of Babur’s Letter and that the “Koran” was rewritten on this letter [4;18].

**The first (early) Latin alphabet** (1930–1939). In March 1928, at the III session of the Uzbek Central Executive Committee, a decree was adopted on changing the writing in the Latin alphabet with state status. This order was approved by a special order of the Central Executive Committee and the Council of People's Commissars of August 7, 1929.

After the orthographic reform in 1934, the number of vowels was reduced to 6 (the three letters used for writing [ö], [ü] and [ı] were removed, and in 1937 the strongly influenced by Persian Tashkent dialect was finally accepted as the basis for the pronunciation norm of the literary language [15;80].

**The Uzbek alphabet is based on the Cyrillic alphabet** (from 1940 to 1993). On May 8, 1940, except for the Armenian, Georgian and Baltic peoples, by decree, all other peoples of the union were to switch to the Cyrillic alphabet from 1940. By this decree, the Uzbek people switched to the Cyrillic alphabet.

Specific letters that are characteristic of the Uzbek language were introduced into this alphabet: “ŷ”, “ƙ”, “ƒ”, “x”.

The Uzbek alphabet based on Russian graphics consists of 33 letters and two characters. This did not include the Russian letters «ы», «ш». Instead, they used «и», and the letter combination «шч».

«Ъ» (hard) and «ь» (soft) signs did not denote sound, were used only in Russian-international words.

The letter «ж» was used in two cases:

- 1) anterior-lingual, explosive consonant: for example, in the words: жума, жануб, жўжа, жиян;
- 2) anterior-lingual sliding consonant (in Arabic and Russian words): журнал, аждар, жүри.

To transmit the nasal sound, a sonorous, rear-language letter combination is used: n + g → н: де-нгиз, ку-нгил, то-нги. This creates difficulties in translating words and distinguishing between two separate letters: n + g: мен-га, сен-га, тун-ги, жахан-гир.

The letter “o” is also used in two versions:

- 1) non-labial, wide, back-lingual phoneme a (o), which is inherent in Uzbek phonetics;
- 2) labial, middle-language phoneme about o (ŷ), which is found in Russian international words.

The letters “e”, “ё”, “ю”, “я” transmitted directly two sounds.

The number of vowels are 8-9 in Uzbek dialects and there are only 6 in the alphabet.

The peculiarity that appeared under the influence of the Uzbek Cyrillic alphabet is the tradition to convey in many words the sound [o], which was designated in the Cyrillic alphabet by the

letter **ŷ**, through **y** due to the similarity of the corresponding letters. In fact, in these words, there is a sound more closed than [o], but more open than [y].

The rules of synharmonism, characteristic of most Turkic languages, lies in the fact that a word can contain either only vowels of the front row or only vowels of the back row. In modern Uzbek, the common Turkic vowels [o] and [ö] correspond to the same sound [o], [u] to [ü] - [u], and [ɪ] to [i] - [i]. The remnants of vocal syngarmonism survived only in the Kypchak dialects. Okae is the transition in some cases of the common Turkic [a] to [o].

“The basic rules of Uzbek spelling based on the Cyrillic alphabet, consisting of 72 paragraphs, were approved by the Presidium of the Supreme Council of Uzbekistan in 1956.

The new Uzbek alphabet differs from the Cyrillic alphabet in the sequence of letters, as well as a change in some letters.

The vowels **е, ё, ю, я**, as well as soft and hard signs (**ь, ъ**), the letter “**ц**”, which was found in Russian-international words, were removed from the alphabet.

Some letters have been replaced by letter combinations (sh, ch, ng). These changes can be seen in the following examples:

1. The vowels **е, ё, ю, я** in the new alphabet are transmitted using two letters, sometimes one:

**е** → **уе**: **ел** - **yel**, **елкан** - **yelkan**;

**е** → **е**: **келин** - **kelin**, **теп** - **ter**;

**ё** → **уо**: **ёркин** - **yorqin**, **ёш** - **yosh**

**ё** → **о**: **режиссёр** - **rejissor**, **ликёр** - **likor**.

**ю** → **уу**: **юлдуз** - **yulduz**, **ютук** - **yutuq**;

**ю** → **а**: **агглютинация** - **agglutinatsiya**;

**я** → **уа**: **яшил** - **yashil**, **яхши** - **yaxshi**;

**я** → **а**: **октябрь** - **oktabr**, **сентябрь** - **sentabr**;

2. The letter “**ц**” of the alphabet based on the Cyrillic alphabet at the beginning, in the middle (after the consonant), at the end of words in the Latin script is transmitted by the letter “**s**”: **цирк**–**sirk**, **центнер**–**sentner**, **концерт**–**konsert**, **акцент** –**aksent**, **абзац**-**abzas**, **шприц**–**spris**, **кварц**–**kvars**.

In the middle of the word after the vowel is written “**ts**”: **лицей** - **litsey**, **милиция**-**militsiya**, **конституция** - **konstitutsiya**.

3. Cyrillic characters “**ъ**” and “**ь**” were deleted: **альбом**–**albom**, **июнь**–**iyun**, **рельс**–**rels**.

In some words the hard sign “**ь**” replaced by the letter “**y**”, or the letter “**e**” is used in the initial form: **субъект**–**subyekt**, **объект**–**obyekt**.

The hard sign **ъ** does not mean the specific sound. The symbol found in Arabic words, replaced by an apostrophe, performs the following functions:

a) if ' (apostrophe) is after the vowel, then it serves for a long pronunciation: ma'no, ma'rifat, ta'limot, a'lo, ta'lim, e'lon, fe'l;

b) if ' (the apostrophe) is after the consonant, it performs the separation function: mas'ud, jur'at, sun'iy, in'om, mas'ul;

c) in some cases ' (apostrophe) serves for making difference between concepts :

sher (animal) - she'r (verse), qala (chop) - qal'a (fortress)

tana (body) - ta'na (ingratitude), nasha (plant) - nash'a (joy)

sanat (count (imperative) - san'at (art), surat (drawing) - sur'at (pace).

tarif (qualification) - ta'rif (sifatlash), ayon (adjective) - a'yon (noun);

d) as well as ' (apostrophe) is used to distinguish between s and h from sh: as'hob, Is'hoq.

The new Uzbek Latin alphabet differs from the classical one in the following:

1) in the modern Uzbek alphabet used in Uzbekistan, for unification with the main Latin alphabet, there are no characters with diacritics, while the 1928 alphabet used not only characters with diacritics, but also unique characters invented by linguists specifically for languages small nations. For example, the sounds [sh] and [ch] are denoted in the same way as in English.

2) in the new Uzbek alphabet there are no letters "w", "c";

3) instead of the sound system **ks**, the rear-language "x" is used;

4) the letter **y** performs the function of a middle-language sound;

5) some letters indicate two sounds: `z`, `ç` > j; `o`, `â` > o;

6) the Arabic **ayn** is transmitted directly through ' (apostrophe).

7) 29 letters transmit 31 sounds.

It is well known that the problem of writing is a problem of the spiritual culture of a people, nation. And the urgent need for a change in the alphabet has matured at the present stage. Those a return to the Latin alphabet is aimed at preserving and developing the language, at preserving its original nature. Moreover, this problem affects the preservation and development of the nation itself, for language is the first indicator in the definition of a nation.

The modern Uzbek alphabet is called the "new Uzbek alphabet based on the Latin script."

At the 13th session of the Supreme Council of the Republic of Uzbekistan (September 2, 1993), the law "On the creation of the Uzbek alphabet based on the Latin script" was adopted. This is explained by the fact that this alphabet brings people closer to world science and technology, and this alphabet is more consistent with the peculiarities of the Uzbek language.

"This law was founded by the constitution of the Republic of Uzbekistan, and also based on the positive experience of 1929-1940, and according to the requirements of the broad masses of the republic, this alphabet serves for the further development of the state and for entering the world's communication system."

In accordance with this law, the alphabet consists of 31 letters and one character (apostrophe). As stated in the second paragraph of this law, along with Latin graphics, you can also study the Arabic script, as well as the Cyrillic alphabet.

On May 6, 1995, the law on the creation of the Uzbek alphabet based on Latin script “was amended:

- 1) replace the following words of paragraph 1: “31 letters and 1 apostrophe” with “26 letters and 3 letter combinations”;
- 2) remove the following letters from the alphabet: Cc, Jj;
- 3) change: Õ õ → O‘o ‘; Ğ ğ → Shsh; Şş → Chch; Şş → Ngng; Q → q;
- 4) use the following spelling forms: letters Aa, Ii, Gg, G‘g ‘, Qq, O‘o‘, Zz and Chch.

On August 24, 1995, the Basic Spelling Rules of the Uzbek Language (based on the Latin script) were adopted, which consists of 7 sections and 82 paragraphs.

The transition to the new Uzbek alphabet based on the Latin script is justified by the following factors:

1. The transition to Latin script will help in the socio-economic development of the country. All developed countries of the world use this Latin graphic, and Latin is widely used all over the world.
2. For the development to a high level of wealth in the socio-economic sphere, in diplomatic negotiations with foreign countries, the study of English, Spanish, and French is required. The transition to the Latin alphabet will help the development of these Western languages.
3. The transition to the Latin alphabet was supported by several Turkic peoples [11, 3–7].

Currently, the parallel use of the Cyrillic alphabet and Latin alphabet continues, which, however, differs significantly from both the 1928 type alphabet and modern Turkic Latin letters (Turkish, Azerbaijani, Crimean Tatar, etc.).

System of writing expresses social-politic and evolutionary sides of every language. Historical experience shows that changing of writing system makes negative influence on development of language. Because new alphabet needs a time for mastering skills of new letters. Important issues of developing literary language such as creating corpus of national language, interpretation of psycholinguistic, pragmatic, linguae cultural attributes of lexical units, making improved and new generation of dictionaries will be solved slowly.

Orthography rules are one of the factors that influencing on development of writing, the large-scale distribution of alphabet. The Uzbek language is one of the means of communication that has ancient history and its stages of evolution. The special properties, systematic order and grammatical rules of this language reports about its historical roots. Its wide potential is demonstrated by major historical, cultural, literary sources created in this language.

The creation of the legislative base of the Uzbek language determined the direction of further development of the national language. Today the status of the Uzbek language has improved and the social function of language has expanded.

Such features of the language as the expression of new concepts in industries, in the exact and natural sciences, in the development of intelligence simultaneously with the communicative, emotionally influential and collective functions of this language have improved. Attitudes, attention and a sense of respect for the language has become more stable. The concept of the state language law was formed in the minds of citizens of Uzbekistan. Attitude to the state language and its commitment has become socio-political significant. Studies were conducted to improve the status of the Uzbek language and its improvement, as well as research on new areas of linguistics. Scientific researches were developed in the following fields: sociolinguistics covering the social value of the language, the relationship between language and society, the psycholinguistics of speech, the cultural process of the language, the cultural value of the language, folklore in the language, customs, traditions, the expression of national values, linguoculturology, computer linguistics, which contributes to improving the globalization of the language. Researches are being conducted on the development of high-speed information methods for a progressively developing society, the creation of translation and automatic editing programs in the Uzbek language.

The decree of the First President of the Republic of Uzbekistan “On the establishment of the Tashkent State University of the Uzbek language and literature named after AlisherNavoi” of May 13, 2016 is an important document for the development of the Uzbek language. There’s mentioned that: “Since the heirs of the invaluable heritage are passed down from generation to generation, we must consider the preservation, enrichment and enhancement of the prestige of our mother tongue as our highest priority, and the importance of this issue should never be overlooked.”

Studies on the development of the Uzbek language should address some of the problems associated with the grammar system of this language. Our main problems are related to orthographic rules and their observance.

“The creation of an ideal academic and educational grammar, which fully reflects the true nature and characteristics of the Uzbek language, its phonetic system and its reflection in letters, as well as the development of scientifically based proposals for improving modern orthographic rules, are among the topical issues on the agenda,” - it is said in the decree mentioned above.

Our people currently use two different letters. First of all, it is impractical to have two different letters. There are both objective and subjective reasons preventing the full introduction of the Latin alphabet, adopted in 1993. Therefore, for almost 20 years, the new Uzbek alphabet based on the Latin alphabet has not been completely converted.

The problem is not the use of two different writing system (the Uzbek people experienced the use of two different inscriptions). In the X-XV centuries, along with the Arabic script, the Uyghur alphabet was used. The problem is that both writing systems do not follow their orthographic rules. In Cyrillic texts of press you can find that soft signs “ь” is escaped from the words февраль, факультет, альбом, a dash is put after numbers of date and year (2016-йил) and isafet combinations are written with adding letter “й” (таржимайи ҳол). Latin texts contain errors in orthography of the Cyrillic letters “е”, “ё”, “ю”, “я”. For instance, when names with these letters are abbreviated, in many cases they are written with two letters: Ё. ҲАКИМОВ –Yo. Hakimov; Ю. Иброҳимова –Yu.Ibrohimova. Orthographic rules explains some cases of spelling “е”, “ё”, “ю”, “я”, but there was not given any definition of their Capital forms. Latin

disappears this concept of writing. That is why expressing the second letter in the words like Yorqin, Yulduz is not necessary.

The text in the Cyrillic letter must be expressed in accordance with the spelling rules of April 4, 1956, and the Latin text must comply with the spelling rules of August 24, 1995.

The expression "и" is not fixed in the spelling rules. Therefore, there are cases of misinterpretation of words containing "и" in Latin. Comments of the spelling rules by Sh.Rakhmatullayev gives clear definition for this sound: in the Latin texts at the beginning of words (цирк-sirk), in the middle of words (концерт-konsert), after prepositions (антициклон) it is pronounced as "и", at the end of words as "s" (шприц-shpris), in the middle of words after consonants as "ts" (милиция-militsiya, лицей-litsey).

There are various suggestions for changing some letters on a social network. For instance, difficulties of the letter combinations "Sh" and "Ch", a need of extra efforts for typing "G'g" and "O'o'", therefore, it is said that it should be brought to a level that does not require additional efforts. These thoughts are appropriate. However, it should be noted that changing the alphabet and spelling creates new problems. In particular, adaptation of new letters will make it difficult to configure a computer system. Today, when we look at the rules of spelling and pronunciation in international languages, which have been raised to the level of methyl, there is more than one literal expression. This does not exclude mastery of the language and literacy, and the scope of the language is further expanded.

In the history of the Uzbek people, writing and spelling rules were changed for 5 times, which negatively affected the development of language and literacy. Therefore, the letters and spelling rules in the current alphabet must remain unchanged. The aim should be to clarify the spelling rules and publish them in the appendix. Orthographic rules for writing together or separately and expression of "и", "е", "ё", "ю", "я" in Latin should be clarified.

Spelling rules of the Arabic words with two variation such as фожиа-фожеа, дарвеш-дарвиш, олийжаноб-олижаноб should be affirmed, the rules of adding possessive suffixes after III person to the words with vowel ending (the suffix "i" is added to the Arabic words with ending غاун(манбаи, мураббийи) the suffix "si" is added to the words with ending و (и) (мавзуси) must be defined and given in particular points.

Adding a table of the correct forms of problematic words to the part of the orthographic of textbooks "Modern Uzbek Literary Language" for secondary educational and higher educational institutions helps to master spelling and increase literacy.

Such efforts like mastering skills of using orthographic dictionaries around students and pupils, regularly using them during linguistic subjects serve for solving spelling problems. In teaching the Uzbek language, one of the key issues is the use of modern methods and strict adherence to spelling rules based on new pedagogical technologies.

Worldwide, some languages are disappearing, and the global problem of preserving native languages is emerging. Along with our centuries-old national-cultural values and traditions, we are responsible for bringing our mother tongue to all generations. We must learn from our ancestors and use the achievements of developed countries. First of all, we need to properly format the text of street advertising and advertisements. It is also advisable to choose Turkic words that show the potential of the state language or, in some cases, borrowed words that are

embedded in the spirituality of our people. At the same way, it is necessary to revive and popularize some Turkic words that have survived to this day in ancient classical sources. The establishment of a termination committee is key to addressing these issues. This committee should monitor the contents of names, advertisements and announcements.

Spelling should include a special paragraph for the spelling of place names. It should be noted that the problem of identification, systematization and standardization of names of geographical objects is an internal affair of each country. Nationalization of the names of geographical objects is the basis of their international application. At the same time, at the international level, it is recommended to use only names recognized in the country. The connection between history, geography and linguistics is very important. It is well known that, until now, linguistics, history, and geography have studied toponyms independently. In fact, the sphere of toponymic vocabulary is so vast that it is a mirror of the life of the nation. Without a systematical study of geographical and linguistic features, functional and methodological features, orthographic aspects, toponyms such as anthroponym, urbotonym, ethnotonym, phytonym, zootonym, hydronym, anions, and etc cannot be regulated or normalized.

It is advisable to use international experience in the formation of spelling rules.

Spelling rules should always be monitored. It is necessary to establish administrative responsibility for spelling errors, control spelling of advertisement texts and names of products. Particular attention should be paid to literacy, mother tongue and literary education, mastering language skills in secondary education. Modernization of the Uzbek language teaching system based on domestic pedagogical experience, the creation of a modern literature audience, the use of innovative technologies are some of the most pressing issues. It is important for students to develop linguistic, verbal, professional, communicative, receptivity to information, self-development and pragmatic competence. Assessment of knowledge in the Uzbek language, automatic editing, translation, development of language training programs is one of the priority tasks. Introducing of tests in the state language at different levels and difficulties, as well as the development of a system for testing the skills and grammar competence of the state language for employment has become relevant.

## DISCUSSIONS

The official language is incomparable wealth. The national language will lead our people to progress. Encourages people to be more united, to preserve national values.

In 1953, UNESCO proposed a distinction between the “official language” and the “official language”:

“The state language is a language that acts as an integral part of a particular state in the political, social or cultural sphere and is a symbol of that state.

The official language is the language of government, law and litigation. ”

In addition to these definitions, the following explanation is given: “These two definitions are accepted as explanatory, not binding on all countries.” These concepts, although divisions by definition, are essentially harmonious. In the absence of a formal language, the state language loses its meaning.

The official language provides the status of the state language. The official language of the country, of course, should be the national language.

## CONCLUSION

1. The language is a symbol of the existence of the nation. Language serves to communicate among ethnic groups, performs an emotional and expressive function, and through the function of collecting, transmits the cultural and educational heritage of the ancestors to subsequent generations.

2. In the history of the world languages, much had been done to preserve the inscription. Characteristics of the languages that retained their inscription are reflected in the ancient characters, in the expression of characteristic symbols of the early period of writing.

3. Inscription is the language of expression, and the excellence and stability of writing is one of the most important factors in language development. If we look at the history of the developed languages, we find that most of them are in a constant state of writing, that is, for a long time, they have been used for centuries. Changes and frequent changes in the writing have a negative impact on the development of language. It undermines attention to the development of socio-political, spiritual, educational and educational functions of the language.

4. In certain historical contexts, two types of inscriptions were used at the same time in the provision of communication between nations, as required by cultural attitudes. Consumption of two different records at the same time is still observed today. There are some disadvantages of using two different inscriptions. Misinterpretation of written signs and non-spelling of spellings can have a negative impact on literacy. It is desirable to use the same writing in the same language at the same time.

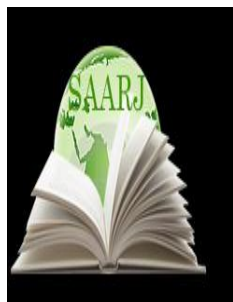
5. Creating criteria is important for normalizing the national language, improving the literary language, and establishing the basics of the standard language. Improvement of spelling rules, eliminating different types of spelling, and ensuring uniformity in spelling dictionaries in one language is a key factor in improving literacy.

6. It is necessary to use the world experience and creatively use the world experience in the development of spelling, improvement of spelling. The persistence of inscription and spelling is an important factor in language development.

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## METHODS OF TEACHING A FOREIGN LANGUAGE TO STUDENTS BASED ON MOBILE TECHNOLOGIES

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### ABSTRACT

*This article proposes methods of using mobile data in teaching foreign languages. In this regard, there are contradictions between the declared integration of modern information and communication technologies in the educational process and their practical application in teaching a foreign language in higher educational institutions; between the need for informatization of education, including language education, and the lack of methods for teaching a foreign language and culture of the country of the studied language on the basis of mobile technologies.*

**KEYWORDS:** *Educational Process, Electronic Platforms, Mobile Applications, Information And Communication Technologies.*

### INTRODUCTION

The modern stage of development of the national education system is characterized by the process of its intensive informatization. Informatization of education is represented as "purposefully organized process of providing the sphere of education with the methodology, technology and practice of creating and optimal use of scientific and pedagogical, educational and methodological developments aimed at implementing the capabilities of information and communication technologies (ICT) used in comfortable and health-saving conditions" [3,106]. As a result, a number of fundamental studies on the use of new information and communication technologies in the educational process have appeared in the scientific literature [4,140]. Most universities in the Russian Federation have begun to introduce electronic platforms E-learning and MOODLE in the educational process for organizing the educational process in all forms of education (full-time, part-time).

Mobile technologies are one of the new innovative means of teaching a foreign language. Mobile technologies should be understood as portable devices with mobile applications and Internet access, allowing students to access educational and reference materials at any time and in any place, as well as to organize network communication between participants of the educational process (students and teachers) in order to form aspects of foreign language communicative competence.

## **MATERIALS AND METHODS**

The degree of development of the problem. It should be noted that there is already an impressive database of works to consider the problem of teaching a foreign language based on mobile technologies. Analysis of scientific papers has shown that the focus of most researchers was on the following issues:[1,446]

- Theoretical foundations of the competence approach;
- Theoretical foundations of the use of information and communication technologies in education;
- Theoretical foundations of the use of information and communication technologies in linguistic education;
- use of modern information and communication technologies in teaching a foreign language.

However, despite the existing research on the use of information and communication technologies in teaching a foreign language, we have to state that there are a number of problems that have not yet been developed and insufficiently studied, namely:

- 1) There is no definition of mobile learning in relation to the method of teaching a foreign language and culture;
- 2) Didactic properties, didactic functions and methodological functions of mobile technologies in relation to the methodology of teaching a foreign language are not defined;
- 3) The nomenclature of speech skills and language skills of students of non-linguistic areas of training developed and formed on the basis of mobile technologies is not defined;
- 4) Psychological and pedagogical conditions of teaching a foreign language based on mobile technologies have not been identified;
- 5) a methodological system for teaching a foreign language based on mobile technologies has not been developed;
- 6) The technology of teaching a foreign language based on mobile technologies has not been developed.

The object of the research is the pedagogical process of teaching a foreign language to students of non-linguistic training areas.

## **RESULT AND DISCUSSION**

The subject of the research is the method of teaching a foreign language to students of non-linguistic areas of training based on mobile technologies.

The purpose of the dissertation work is to develop a scientifically based and experimentally proven methods of teaching a foreign language to students of non-linguistic areas of training based on mobile technologies.

To achieve this goal and test the hypothesis it was necessary to solve the following tasks:

- 1) Identify the didactic properties, didactic functions and methodological functions of mobile technologies;
- 2) determine the nomenclature of speech skills and language skills of students of non-linguistic training areas formed on the basis of mobile technologies;
- 3) To identify and justify the psychological and pedagogical conditions of teaching a foreign language to students of non-linguistic areas of training based on mobile technologies;
- 4) develop a methodological system for teaching a foreign language to non-linguistic students based on mobile technologies;
- 5) develop algorithms for the development of speech skills of students in non-linguistic areas of training based on mobile technologies (blog technologies and mobile podcasts) and a series of tasks aimed at forming students' language skills based on mobile technologies; to test the effectiveness of methods of teaching a foreign language to students based on mobile technologies in experimental training; to describe its quantitative and qualitative results.

The hypothesis of the research is the assumption that teaching a foreign language to students of non-linguistic areas of training on the basis of mobile technologies will be successful if it is carried out on the basis of the development and implementation of a methodological system in which:

- the nomenclature of speech and language skills based on mobile technologies is used;
- the psychological and pedagogical conditions necessary for the successful teaching of a foreign language to students of non-linguistic areas of training based on mobile technologies are taken into account: a) motivation of students to use mobile technologies as teaching AIDS; b) readiness of teachers to carry out training based on mobile technologies; c) ICT competence of students; d) ICT competence of a foreign language teacher; e) organization of foreign language training based on a personal-activity approach;
- the organization of training is carried out in three stages (preparatory, procedural and evaluation), including five steps (blog technology) and eight steps (mobile podcasts), as well as using a series of tasks for the formation of students' language skills.

To solve the tasks and test the effectiveness of the hypothesis, the following research methods were used:

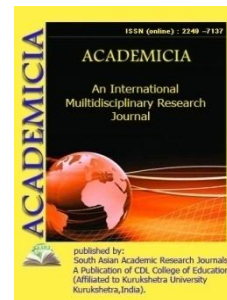
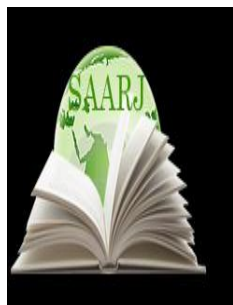
- Analysis and generalization of research results on the topic of the dissertation research;
- Modeling of the pedagogical process of teaching a foreign language based on mobile technologies;
- Experiential learning;
- Analysis and description of quantitative and qualitative results of experimental training.

**CONCLUSION**

Thus, there is every reason to consider the problem of teaching students of non-linguistic areas of training in a foreign language and culture based on mobile technologies unsolved and requiring special research.

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## DEVELOPING STUDENTS' READING SKILLS BASED ON AUTHENTIC TEXTS

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### ABSTRACT

*The article tells about the use of authentic texts when learning to read. Reading authentic texts helps to increase communicative - cognitive motivation, provides the possibility of simultaneous appeal to language and culture.*

**KEYWORDS:** *Reading Instruction, Text Selection, Authentic Texts, And Communicative Competence.*

### INTRODUCTION

Reading is one of the most important types of communicative and cognitive activities of students. This activity is aimed at extracting information from a written fixed text. Reading performs various functions: it serves for practical mastery of a foreign language, is a means of learning a language and culture, a means of information and educational activity and a means of self-education. As you know, reading contributes to the development of other types of communication activities. It is reading that gives the greatest opportunities for the upbringing and comprehensive development of schoolchildren by means of a foreign language.

Quite often, students work with texts whose content goes beyond their interests and needs, which lead to a decrease in the motivation of learning, as well as to the loss of the meaning of reading as a type of speech activity.

Reading is advisable to consider as an independent type of activity, where a special place is given to reading "to oneself" in order to extract basic information from read texts.

The objectives of teaching reading as an independent type of speech activity are as follows: to teach how to extract information from a text to the extent necessary to solve a specific speech problem using certain reading technologies [1,98 ].

When selecting texts, it is necessary to take into account the interests and needs of students. But no less important is the content of the texts, the novelty and practical significance of the information available in them.

To date, this problem has been solved through the use of authentic texts in the educational process. Learning to read is based on texts of various genres and volumes, which are a source of new information, sociocultural, regional and linguistic and regional information. Such texts are perceived by students with increased interest and great enthusiasm.

## **MATERIALS AND METHODS**

The authentic text, like no other educational text, is distinguished by its redundancy, informational content. "Authentic texts are actually original texts written by a native speaker." To them carry texts drawn from newspapers and magazines of different types of ads (posters, advertisements, signs, schedules, menus, etc.), letters, radio and television programs, literary texts. By the nature of their usual share on pragmatic (billboards, ads, menus, schedule of transport, etc.), (newspaper and magazine articles), artistic, scientific - popular. Depending on the level of formation of communicative competence, authentic texts are used at various stages of training. [2,45]

The use of authentic texts in teaching makes it effective, provides an atmosphere of real knowledge of the real language, simulates the everyday situations of the country of the language being studied, and introduces students to its culture, problems, and traditions.

Such texts should be tolerance for another culture, while developing a sense of pride and love for one's own. While reading, students not only join the new world for them, but also begin to navigate it, learn to define universal values and receive moral satisfaction from the reading process itself. Pythagoras once said quite rightly about this: "To learn the manners of any people try first to learn their language." It is an authentic text that conveys the diversity of a foreign language.

A specialist in any field needs the following types of reading: viewing or search to find the information in the text; fact-finding to get an idea of the text; learning to figure out all the details.

For example, to develop reading skills with a complete understanding of the content (learning reading), you can use various kinds of booklets: brochures, advertisements, as well as fiction, recipes, letters, etc.; for the development of search or introductory reading skills - posters, menus, publications from newspapers and magazines of various nature (interviews, essays, messages), signs in stores, etc.

## **RESULT AND DISCUSSION**

Special attention should be paid to reading literary texts in the language being studied, since, according to psychologists, students are more likely to analyze and evaluate the actions and feelings of literary characters than their own. It should also be added, "that in the literary text there are dialogues where various forms of speech, politeness, background and non-equivalent vocabulary are used. All this expands the linguistic and knowledge of students, allows them to better understand the specifics and originality of another language and culture» [3,87 ].

Authentic texts are used to develop reading skills themselves, and also as the basis for the development of written and spoken language. The use of authentic texts contribute to the

formation of communicative competence, which is the main goal of teaching a foreign language. In this case, all its components are involved:

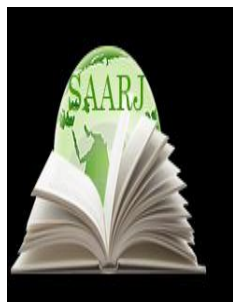
- **linguistic competence**, as the study of different language repertoire within different topics on the basis of actual texts allows you to significantly expand the active and passive vocabulary, enriches the vocabulary of students, introduces new grammatical structures;
- **sociolinguistic competence** the use of language forms depending on the specific situation of communication and context; reading in this case serves as a means of learning, and authentic text as close as possible to the real situation in which students may find themselves in everyday life;
- **discursive competence**, which involves mastering the skills of speech organization, the ability to build it clearly, logically, and consistently; authentic text helps students develop the ability to perceive, understand and interpret a written source of information;
- **sociocultural competence** - the use of various authentic texts at different stages of training allows you to expand the students' understanding of culture, traditions, lifestyle, adjusts to the dialogue of cultures;
- **social competence** - a component of communicative competence, focused on the interpersonal nature of communication; the formation of this type of competency determines the organizational forms of work in the classroom, work with authentic texts creates an atmosphere of common interest, mutual support, joint overcoming difficulties and joint solution of tasks.

## CONCLUSION

Thus, the use of authentic in teaching various types of reading contributes to the formation of communicative competence, helps to awaken cognitive motivation, and also serves as the basis for teaching indirect communication in the context of a dialogue of cultures [4,130 ].

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## EFFICIENCY OF HORMONE REPLACEMENT THERAPY IN PREVENTION MENOPAUSAL THERAPY

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### ABSTRACT

*Postmenopausal women suffer hip fractures caused by osteoporosis that develops primarily as a consequence of the low estrogen levels of menopause. Calcium supplementation, although probably important before menopause, cannot stop bone loss alone in the perimenopausal and postmenopausal phases. Estrogen replacement therapy remains the treatment of choice. As little as 0.625 mg of conjugated estrogens can inhibit bone loss. Oral contraceptives also have a beneficial effect on bone density. Although fluoride therapy can increase bone mass, objectionable side effects rule out its use.*

**KEYWORDS:** *Estrogen Replacement Therapy, Menopause, Osteoporosis.*

### INTRODUCTION

Osteoporosis is a common disease characterized by low bone mass, microarchitectural disruption, increased skeletal fragility, decreased bone strength associated with increased fracture risk, and mortality associated with fractures [1]. Due to changes in population demography, the annual number of fragility fractures will rise from 3.5 million in 2010 to 4.5 million in 2025 in the EU [2]. Therapies that are effective in osteoporotic women at high risk of fracture are available. However, to significantly impact total fracture numbers, effective options are needed to prevent early accelerated bone loss in women in the first years after menopause and to delay the necessity of antiresorptive therapies in postmenopausal women as they age. Estrogen

deficiency is the major cause of the early postmenopausal increase in bone resorption, bone loss and osteoporosis [3]. Randomized clinical studies have demonstrated that estrogen alone, or combined with progestin to protect the uterus from cancer, reduces the risk of osteoporosis-related fractures. There are currently no clinical guidelines for the management of bone loss in early postmenopausal women. The magnitude of bone remodeling and early bone loss depend on several important genetic factors and bone health characteristics of the women, such as recurrent cycle/ovulatory disturbances; overall nutrition; body mass index; protein, calcium, and vitamin D intakes; physical activity; adequacy of sleep; the psychosocial environment; and cognitive dietary restraint, modulate the bone tissue sensitivity to estrogen deficiency.

*Alternative dosages and routes of MHT* have been shown to be efficacious even at low doses. Oral micronized 17 $\beta$ -estradiol at a dose of 0.25 mg/day for 3 years in postmenopausal women resulted in significant increases in hip, spine, and total BMD compared with the placebo. This treatment reduced biochemical markers of bone turnover to a degree comparable with an estrogen dose of 1.0 mg/day. The side effect profile of the drug was similar to that of the placebo [8]. The addition of progestogen to estrogen did not interfere with this benefit.

The effect of low-dose estrogen therapy via the transdermal route on bone preservation has been well documented [1]. A double-blind, placebo-controlled study was performed in 355 nonosteoporotic postmenopausal women who had hysterectomies with or without oophorectomy. At 2 years, compared with the baseline values, lumbar spine BMD declined by 0.59% in the placebo group, but it increased by 1.65%, 4.08%, and 4.82% in the estradiol 0.025, 0.05, and 0.075 mg/day groups, respectively [3]. Administration of 0.050 mg/day or 0.025 mg/day transdermal estradiol resulted in a reduction in bone turnover markers to a similar degree [9]. Transdermal administration of 0.014 mg/day estradiol was associated with a significant increase in lumbar spine BMD and in total hip BMD compared with the placebo group [10]. A 2-year transdermal administration of estradiol and levonorgestrel resulted in significant increases in the lumbar spine, hip, and total body BMD, in the hormone groups compared with the placebo group [1]. All bone markers were significantly reduced in the hormone groups compared with the placebo group [2]. According to a meta-analysis of nine clinical trials, lumbar spine BMD increased significantly by 3.4% and 3.7% after one and 2 years of transdermal estrogen therapy, respectively, compared with the baseline values [2].

### **Bone Effects of Estrogen Deficiency**

After menopause, bone homeostasis is dysregulated by hormonal deficiency, leading to enhanced bone resorption and, consequently, increased bone formation. However, the rate of formation is not able to keep up with the rate of resorption, resulting in net bone loss [3]. Estrogen deficiency plays a specific role in the subclinical inflammatory bone-microenvironment state that is accompanied by an increase in oxidative stress and the generation of advanced glycation end products [3].

Important information regarding the effects of MHT in the preservation of bone mass by reducing the rate of osteoclastic bone resorption and maintaining new bone formation was provided by dynamic bone histomorphometry in a randomized, double-blind, clinical prospective trial that enrolled healthy women aged 45-55 years who were treated for 2 years with either cyclic estradiol/norethisterone acetate or placebo [5]. Bone biopsies from untreated women demonstrated an increased osteoclastic erosion rate, erosion surface and erosion depth compared

with women in the MHT group. In untreated women, delayed osteoclast apoptosis resulted in a longer osteoclast lifespan and increased resorptive activity and erosion depth. The bones of women taking MHT were characterized by preservation of bone balance at individual basic multicellular units (BMUs) (wall thickness-erosion depth) and no change in erosion depth or osteoclastic erosion depth. A relative osteoblastic insufficiency was present in the placebo group because osteoblastic bone formation was unable to keep up with the increase in bone resorption [5]. Accordingly, a significant decrease in osteoclast number and osteoclastic resorption rate, but not mineralizing surface or bone formation rate, was observed after 6 months of CEE treatment [5].

Both MHT and antiresorptive therapies such as aminobisphosphonates and denosumab increase BMD, reduce bone turnover and are efficacious in the treatment of postmenopausal osteoporosis [2]. A reduction in the number of remodeling sites may decrease the probability of trabecular perforation and failure and thus stabilize the trabecular network [6]. However, estrogen but not antiresorptive therapies [6], by enabling maintenance of bone formation, can adjust the physiological rate of bone remodeling, and restore quality of bone organic matrix, that affects bone micromechanical properties independently of mineralization [6]. Moreover, estrogen but not antiresorptive therapies [3] attenuate the inflammatory bone-microenvironment and maintain the equilibrium between bone resorption and bone formation by modulating osteoblast/osteocyte and T cell regulation of osteoclasts.

Of importance are beneficial effects of MHT on connective tissue, namely, muscle and cartilage. In a meta-analysis, postmenopausal women treated with MHT had approximately 5% greater muscle strength than those not on MHT [4]. According to Collins et al. the loss of muscle strength in females resulting from estrogen deficiency appears to be associated with apoptotic pathways that contribute to the loss of muscle mass, inadequate preservation of skeletal muscle mass and reduced quality of the remaining skeletal muscle [1]. Estrogen may protect skeletal muscle against apoptosis via its effects on hydrogen peroxide-induced apoptosis and mitochondrial dysfunction [2]. On the other hand, the cross-sectional area of the skeletal muscles around the femur was lower in osteoporotic patients who underwent long-term aminobisphosphonate treatment than that of the BMD-matched control postmenopausal women [2].

A significantly lower intervertebral disc height was demonstrated in postmenopausal osteoporotic women when compared with that in untreated nonosteoporotic women who, in turn, had significantly lower disc height than premenopausal women and women taking MHT [1]. Intervertebral disc space shows a progressive decline that almost entirely occurs in the first 5–10 years after menopause [7]. Estrogen was shown to have direct chondroprotective effects and to be able counteract cartilage degradation in an in vivo model of increased cartilage turnover [7].

### **Safety Aspects of Menopausal Hormone Therapy**

According to clinical studies [13], the individual benefit/risk balance of MHT is very dependent on the type, doses, and duration of MHT as well as the individual risk profile of each woman. These aspects are considered in the guidelines [3].

Ischemic stroke is affected differentially by the route of estrogen administration [6•] due to the hepatic first-pass effect of estrogens when administered orally. Oral but not transdermal estrogen

activates the coagulation cascade and increases fibrinolytic activity and may also induce resistance to activated protein C, which has been associated with an increased VTE risk [7, 8].

Other risks associated with MHT include dementia (in women aged  $\geq 60$  years) [9], gallbladder disease [10], and urinary incontinence [11].

## CONCLUSION

MHT prevents bone loss and deterioration of the bone microarchitecture [10] and decreases the incidence of osteoporosis-related fractures even in postmenopausal women not diagnosed with osteoporosis, with an efficacy similar to that of bisphosphonates. However, due to differences in the mode of action, estrogen but not antiresorptive therapies can attenuate the inflammatory bone-microenvironment and maintain the physiological equilibrium between bone resorption and bone formation. Importantly, the use of MHT for 5-10 years from the onset of menopause has potentially valuable effects on the bone for many years after MHT discontinuation [2]. Also, MHT during the early postmenopausal years effectively improves hot flashes and night sweats, and may improve other features involved in the genesis of osteoporotic vertebral fractures, namely, the quality of connective tissue.

The evidence of increased risks of breast cancer does not allow recommending MHT for the prevention of bone loss in the population, even in women younger than 60 years old or who are within 10 years of menopause onset. However, MHT should be considered in women with premature estrogen deficiency and increased risk of bone loss and osteoporotic fractures. Selective estrogen receptor modulators [13,14,15,] appear to be an available option to delay the necessity of antiresorptive therapies in postmenopausal women as they age. Clinical trials are needed to test the efficacy, safety and cost-effectiveness of other antiresorptive options in the prevention of accelerated bone loss in the early years after menopause in women with increased risk of an accelerated bone loss in order to reduce the number of future fractures associated with the changing population demography.

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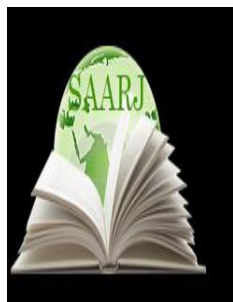
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## METHODOLOGICAL BASIS OF THEORETICAL STRUCTURE AND LEXIC COMPETENCE IN TEACHING TERMINOLOGY

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### ABSTRACT

*International language learners spend a large amount of time studying the language vocabulary they are using. Because the textbooks provide inadequate knowledge to learn vocabulary, students face difficulties in using the terms and phrases they have learned in actual situations. The article thus discusses the approach of teaching vocabulary and the linguists' views on it. Next, the article focuses on the importance of vocabulary with regard to grammar and the quality of lexical material, the vocabulary used in sentences such as words, phrases, and the views of local and international linguists. Methods of teaching foreign languages are an important part of the education system; Taking into account the linguistic features of lexemes in teaching, this focuses on the importance of teaching language. Alternatively the article addresses the benefits of methods of vocabulary instruction. It also discusses important principles and approaches to help students better learn a language.*

**KEYWORDS:** Theory, Vocabulary, Expression, Term, Jargon, Language, Idiom, English, Approach, Dictionary, Values.

### INTRODUCTION

Nowadays, as a result of comprehensive reforms in the field of education, improve the standard of education on the basis of modern requirements, including the training requirements of foreign language teachers on the basis of advanced foreign international requirements established the national framework. In addition to this, the lessons of the teachers of foreign languages aimed at the theoretical aspects of the consistency of the learning process in the organization of communicative approaches, as the form of the work is being carried out in the introduction to competence.

Resolution of the President of the Republic of Uzbekistan of December 10 2012 No RP-1875 "Action to further develop the foreign language learning program" implementing potential tasks, such as the demand for culture and building readiness for intercultural cooperation is a key part of the process, to increase the interest of the people to learn a foreign language and culture general training and cultivation the increased demand to the average implementation of priority tasks . It's evident that one of the tasks for each of us is to establish foreign language teaching methods from foreign language teaching methods.

### **Used methods**

The evaluation of empirical and theoretical literature on the subject, the teaching observation, the comparative examination of translation processes, questionnaires and tests were used.

### **The superiority of vocabulary over grammar**

Teachers should also bear in mind that learning a language is actually learning its meaning. As M.A. Khaliday stated, "Language is the result of a social process and language is shaped during contact with others."

Teaching methodologies are also relevant to help students communicate their ideas with each other through the vocabulary they have learned. Linguists stress the importance of teaching vocabulary to students rather than grammar in order to improve specific communication skills in English. The importance of putting vocabulary above grammar M. Lewis argues that language does not consist of grammatically adapted vocabularies, but of grammatically adapted grammars. In addition, Viddousan emphasizes that communicative competence does not depend on knowledge of rules, but on a stock of pre-accumulated language skills and <sup>1</sup>knowledge. He emphasizes that rules are not binding but regulating, and that they have no force without words.

Beliefs of linguists on the importance of paying attention to vocabulary do not mean that teachers should be taught only by word teaching and that grammar teaching should be excluded from lessons. On the contrary, vocabulary and grammar are considered to be inseparable and absolutely interdependent. Wills also points out that grammar and lexemes are two ways of expressing the same language goals. That is, a word is made up of different meanings, and grammar is made up of structures. In his view, language learners should work simultaneously with grammar and vocabulary. If teachers put too much emphasis on grammar, then the creation of meanings stops.

This emphasis is suggested by grammatical vocabulary in foreign language lessons than by the above analysis. However, we now need to apply this idea, including the practical application of it.

### **Advantages of terminology and quotes**

Throughout linguistics, it is important to clearly identify and differentiate between the terminology involved in the analysis of words and the definition of nomenclature that is similar to it. The word "terminology" consists of the Latin term and the Greek logos, meaning "science of words." According to AA Reformatsky, since the main purpose of the term is to name objects and events, it means that the term is based on the noun. Also, R. Doniyorov in his research on technical terminology believes that "only terms belonging to the category of nouns can be the object of terminology."

On the basis of the opinion of the linguists referred to above, it can be assumed that students should have knowledge and skills on the characteristics of field-related words, i.e. the manner in which they are constructed. It is clear that their linguistic characteristics need to be taken into account in the context of teaching English in the classroom. Because terms are an integral part of the lexical layer of language.

In her research work, FS Abdullaeva suggested that comprehension of the meaning of a new word in linguistics can be carried out in two ways-without translation and by means of translation. According to him, two types of internal and external exhibition are used in a non-translational way. The methodological methods used in acquiring the meaning of a new lexical unit depend on the following factors: the nature of the term; belonging to the term active / passive; educational stage and student level; the presented form of the new term (reading or comprehension); a place to introduce a new unit (lesson, textbook, dictionary).

Choosing this term, taking into account their particular aspects, is one of the crucial things that teachers need to pay attention to. There is good evidence to teach lexemes for real communication in the form of phrases rather than a single word. When linguists speak about the importance of lexical expressions in second-language learning, they split them into two. The first approach is that phrases are important because phrases make up language. The second is that the phrases are very important because they are useful to the students, i.e. they enrich the content of the speech.

While we look through the views of international linguists on this topic. According to Sinclair, the framework for the use of native speakers has two separate principles: the concept of free choice and the concept of language. This points out that even though language users follow both principles, the concept of language prevails (most of the texts are read according to the theory of language).

In the key era, other linguists stress the importance of using phrases in the language. In their opinion, students need to know how to deal with the addition of words to sentences, phrases, and text in order to speak and write fluently and clearly. Nattinger and De Carrico listed a number of advantages of learning lexical words. First, students find it very easy to use sentences in the language process because the phrases are in a holistic view, providing fluency in the speaking process. Second, because the origins of phrases are consistent with a general and<sup>2</sup> predictable social context, they are easier for students to memorize than individual words. Third, phrases work as an effective tool for communicating with other people. This can be an incentive to learn the language again. Fourth, because many phrases are easy to analyze and use according to common grammatical rules, phrases help students understand the grammatical rules of a language.

Phrases are therefore suggested as the required components for teaching lexemes. Now let's look at various ways to blend words and phrases.

**Word combinations:** According to Sinclair's assertion (9), terms should be used in pairs and groups, such as hard work, hard luck, hard facts, and so on. It can be shown that effective word combinations attract other words. McCarthy claims that languages are full of strong compounds, and that such phrases should be the core focus of lexicons. Nattinger points out that word combinations not only help memorize the words involved, but also identify semantic areas of the word.

**Teaching methods**

It is not possible to teach everything students need to learn, since the number of lexical elements seems to be infinite. The dictionary should therefore be selected not only in simple and descriptive ways, but also in methods aimed at increasing the efficacy of lexical teaching. Students should use a variety of exercises to help raise awareness in developing a self-study strategy.

If our teachers do not take into account the needs of learners in the vocabulary teaching process, no matter how modern methods are used, they will not work. The first duty of our teachers is to use vocabulary based on the interests and expectations of these students, their area of operation and the national and cultural characteristics of the language. This method increases the enthusiasm for language learning and makes it difficult to apply them in practice.

In addition to the general approach for vocabulary and phraseology, the following concepts exist:

- lexicon and grammar (comparison of lexical and grammatical meanings of words);
- system (taking into account all the elements of the lexical paradigm);
- contextual (considering the word in sufficient context in its syntagmatic combinations);
- lexical - syntactic (appropriate words and phrases).

Both these concepts, which are applied in the educational process, provide students with an understanding of the meaning of terms and phraseology, the need to interpret them in a context in which we can understand the meanings of the word.

Lexical and phraseological activities enable students to improve vocabulary, such that learning words in different classes is useful while studying vocabulary and phraseology. The following activities are a good example of this.

- mark (show, underline), for example, polysemantic words (dialect words, phrases);
- choose synonyms of words (antonyms, phrases);
- Find dialectical (professional or field) words in the glossary;
- Find the meaning of the selected words (indicated by the teacher) and use them to make sentences for different situations.

Another form, that is, teaching words without translation, also produces good results, according to the linguists listed above. The process of implementing this method is as follows: a new word expression, a image, a text is played or shown on an audiotape and assignments are provided with the above exercises.

When operating on words related to various areas, the processing of lexical content takes place at the following stages:

- to get acquainted with a new word;
- start using terms in the speech process (at the initial stage).

At the initial level, information is given on the type, definition and implementation of the word. Discovering (systematizing) the sense of a word is a conventional approach, but it is not a special

stage in the technique. Knowledge on the word in the native language is given before studying the words specific to the areas of the language being learned.

For example, in experimental classes with students studying journalism, it has been observed that the analysis of words in comparison with English and Uzbek gives good results. A comparative analysis of the words revealed the following characteristics:

- The Uzbek meaning of the term is partially consistent with the English language;
- The presence of words related to journalism in the Uzbek language;
- the pronunciation of the English word does not correspond to the pronunciation of the word in the Uzbek language;
- semantic difference of terms from Uzbek to English;
- The presence of multi-component terms in Uzbek, as well as in English, etc.

Of course, when teaching words, we need to take into account students' expertise and skills in the field of language.

## CONCLUSION

Therefore, taking into account recent linguistic teaching advances in vocabulary and English language teaching, the need to teach students English language using modern methods, as well as the need to build textbooks in the area, would help to increase the standard and effectiveness of English language teaching.

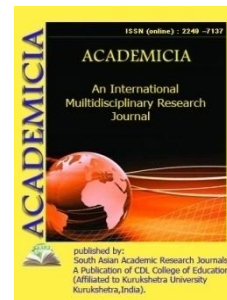
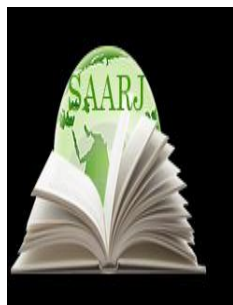
Based on the experience of the university, the following should be noted in the teaching of English terms:

- it is important to apply modern methods and approaches to the education process, taking into account the theoretical views of local and international linguists;
- In teaching vocabulary and terminology, teachers should, first and foremost, consider the needs of students and take into account the importance of inspiring them to increase their interest in language learning when planning lessons;
- have knowledge of the principles that help students to understand the essence of words and phraseology;
- When teaching words and terms in English, it is necessary to take into account the language experience of students in Uzbek and English, especially in the teaching of professional terms (journalism).

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## IRRITABLE BOWEL SYNDROME: A NEW LOOK AT THE PROBLEM

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### ABSTRACT

*Irritable bowel syndrome - a biopsychosocial disease that is a complex of functional disorders that cannot be explained by the patient's organic changes in the intestine. The analysis of modern data concerning the etiology and pathogenesis of the functional pathology of the digestive tract makes it possible to express an opinion on the concept of the formation of the disease. Obviously, it is not one, but several etiological factors that trigger also not one, but several pathophysiological mechanisms. And the complexity of the supervision of such patients lies in the fact that in each case, the combination of etiopathogenetic mechanisms is individual. Among them, of particular relevance today are: socio-economic status, genetic predisposition, the possibility of the formation of a child's disease by parents suffering from IBS, psychological aspects, visceral hypersensitivity, gastrointestinal motility, changes in the neuroendocrine system (brain – intestine axis), low-grade -inflammation, the concept of post-infectious IBS, microflora imbalance and, finally, nutrition factors*

**KEYWORDS:** Irritable Bowel Syndrome, Functional Intestinal Diseases, Genetic Factors, Pathogenesis, Rome Criteria, Diagnosis

### INTRODUCTION

Functional intestinal diseases (FID) make up the majority of the functional pathology of the gastrointestinal tract (GIT), characterized by a variable combination of chronic or recurring symptoms related to different parts of the gastrointestinal tract, which cannot be explained by morphological or biochemical abnormalities. These disorders are diagnosed by eliminating a number of organic diseases of the gastrointestinal tract, which have similar manifestations, after a thorough examination of the patient. In May 2016, the world gastroenterological community at the American Gastroenterological Week got acquainted with the Roman criteria IV, the main provisions of the consensus have already been published [1,2,3,4].

<b>Table 1. Roman criteria IV. Section C. "Functional bowel disorders"</b>
C1. Irritable bowel syndrome
C2. Functional constipation
C3 Functional diarrhea
C4. Functional bloating
C5 Nonspecific Functional Intestinal Disorder
C6. Opioid- induced constipation

Functional bowel diseases still include clinical nosologies such as irritable bowel syndrome (IBS), functional constipation, functional diarrhea, functional abdominal bloating, and non-specific functional bowel disorders (Table 1). IBS invariably retains in this list the first position by right of greatest prevalence and knowledge. In contrast to the previous classification, a new form appeared in the section of functional intestinal diseases - opioid-induced constipation, designed to draw the attention of clinicians to the sharply increased frequency of opiate use and the associated large number of side effects in their use. The Rome Committee urges not to consider this form as a separate disease, but to classify the developed clinical picture as opioid-induced adverse effects.

Irritable bowel syndrome is a biopsychosocial disease that is a complex of functional disorders that cannot be explained by the patient's organic changes in the intestine [5].

According to a meta-analysis published in 2012, which, according to fairly strict selection criteria, included 80 clinical trials with a total number of patients of 260,960, the prevalence of IBS in the world is 11.2% [6]. Only 12-15% of patients seek medical help. In Southeast Asia, its frequency is 7%, in Europe 20%, in South America 21%. According to the literature, the number of patients with functional disorders of the gastrointestinal tract, including IBS, in a specialized gastroenterological hospital reaches 41-45% [7]. The incidence of IBS among women remains higher than among men. Young people are more prone to developing the disease than people over 50. Any case of the manifestation of the clinical picture of IBS in patients of an older age category should alert the internist regarding the exclusion of organic pathology.

The aim of the study was to study the pathogenetic aspects of IBS on the basis of modern scientific data.

### **Material and research methods**

This article summarizes the results of domestic, near and far foreign scientific research work of the authors.

### **RESULTS AND DISCUSSION**

The analysis of modern data concerning the etiology and pathogenesis of the functional pathology of the digestive tract makes it possible to express an opinion on the concept of the formation of the disease. Obviously, it is not one, but several etiological factors that trigger also not one, but several pathophysiological mechanisms. And the complexity of the supervision of such patients lies in the fact that in each case, the combination of etiopathogenetic mechanisms is individual. Among them, of particular relevance today are: socio-economic status, genetic predisposition, the possibility of the formation of a child's disease by parents suffering from IBS,

psychological aspects, visceral hypersensitivity, gastrointestinal motility, changes in the neuroendocrine system (brain – intestine axis), low-grade -inflammation, the concept of post-infectious IBS, microflora imbalance and, finally, nutrition factors [8,9].

One of the most recent theories of our time - the theory of impaired interaction of the so-called axis “brain - intestine” - determines changes in motor ability and secretion of digestion, causing visceral hypersensitivity (CVH) and leading to cellular and molecular abnormalities in the enter endocrine and immune systems [10]. As you know, in the absence of pathological changes, the usual stretching or contraction of a hollow organ is not felt by a person. Impaired sensitivity in response to normal physiological stimuli is considered as CVH [11]. In the presence of CVH in patients with IBS, increased perception (sensation, perception) is noted in response to mechanical effects on the intestines, which is perceived by patients as abdominal pain or discomfort. According to available data, CVH occurs in 33–90% of patients with IBS (on average, in 60%) [12]. It is clear that in the case of the presence of CVH in patients with IBS, the well-being of patients and, accordingly, the quality of life are worse than in the absence thereof [13]. Chronic anxiety increases amygdala activity, leading to the formation of a hypothalamic-pituitary-adrenal axis, which ultimately causes induced visceral hyperalgesia [14,15]. As a result of the study, two types of visceral hypersensitivity were found: with a decrease in the threshold for pain perception and with a more intense sensation of pain with a normal threshold for its perception, called allodynia [16,17]. In addition, other factors may contribute to visceral hyperalgesia, such as specific GI mediators (serotonin, linins), or an increase in spinal cord excitability due to activation of the N-methyl-D-aspartate receptor (NMDA). In addition, patients with IBS have an increased secretion in the duodenum and jejunum [18].

Much attention is currently being paid to the disturbed balance of pro - and anti-inflammatory cytokines in IBS. In such patients, an increase in the level of pro-inflammatory cytokines - interleukins 6, 8, 1 $\beta$ , tumor necrosis factor  $\alpha$  - in the blood and mucous membrane of the colon, and also a decrease in the level of anti-inflammatory cytokines were found [5,10, 19].

Serotonin is synthesized and released by enterochromaffin cells in the gastrointestinal tract and plays an important role in the regulation of motility, sensitivity and secretion of the gastrointestinal tract [14, 21]. Serotonin activates both its own and external primary afferent neurons, respectively, triggers peristaltic and secretory reflexes and transfers information to the central nervous system [18]. Excess serotonin released is absorbed by the serotonin reuptake transporter (SERT) in enterocytes or neurons [10, 14, 18]. Its physiological effect on patients with IBS forms the basis of two subtypes, namely 5HT3 and 5HT4, which cause an improvement in patients with IBS-C, while 5HT3 has the opposite effect as an antidiarrheal agent for IBS-D [14, 20].

Tachykinins (neurokinins A and B, substance P), opioid ( $\delta$ -,  $\mu$ -,  $\kappa$ -receptors), adrenergic, glutamate receptors, estrogens, protease-activated receptors are considered today in terms of their contribution to the development of CVH and the possibility of appropriate correction [11]. It has been shown that intestinal epithelium in IBS is capable of producing the active trypsin-3 protease, which is capable of sending signals by enteric neurons to induce visceral hypersensitivity [22].

IBS is a complex disease that is associated with a change in gastrointestinal motility, secretion, and sensations. In some patients with IBS, motor anomalies of the gastrointestinal tract are

detected, for example, an increased frequency and irregularity of contractions of the lumen, a long transit time for IBS with a predominance of constipation, and an exaggerated motor response to cholecystokinin and food intake with IBS with a predominance of diarrhea [16].

Some authors report an increase in the permeability of the intestinal mucosa and a violation of tight junctions in subgroups of patients with IBS, often caused by some factors. Possible mechanisms underlying these changes may be associated with the interaction of mucosal permeability, internal organs hypersensitivity and mucosal inflammation [16]. As is known, the normal permeability of the intestinal mucosa is determined by the density of contacts between the epithelial cells, which in turn depends on the content of tight junction proteins — occludins and claudins. A number of authors revealed in patients with IBS a decrease in the expression of claudins 1, 2, 3 in the intestinal mucosa [5,23].

Gastroenteritis is a common trigger for IBS. Symptoms of IBS can be caused by an intestinal infection and can persist for weeks, months, and years [16]. More than a third of patients suffering from IBS showed a positive hydrogen breath test for SIBO (Small Intestinal Bacterial Overgrowth - Syndrome of Bacterial Overgrowth in the Small Intestine) or SIBR Syndrome for Overgrowth of Bacteria: The likelihood of developing SIBR in patients with IBS is almost higher five times compared with the control group [10,17]. Bacterial enteritis and protozoa and helminthiasis are accompanied by prolonged PI-IBS. The effect of intestinal infection causes a constant mild systemic inflammation and inflammation of the mucous membrane, which is characterized by an altered population of circulating cells, mucosal infiltration of immune cells and increased production of various cytokines in patients with IBS [17].

The role of genetic factors affecting the prevalence of IBS has been shown in several studies. Family members of patients with IBS may present similar GI complaints. It has been shown that IBS is twice as common in monozygotic twins as compared to dizygotic twins. Negative control regulation, confirmed by genetic polymorphisms and SERT in various studies, is consistent with the notion of the significant role of genetic factors [12]. Polymorphism of the genes of the modulator of serotonin (tryptophanhydrolase), transporter (serotonin transporter; SERT), subunit A of 5-ND3 receptors, can cause impaired motility and visceral sensitivity, polymorphism of the IL-6 and IL-8 genes, as well as TNFSF15, contributes to the development of inflammatory changes in the mucosa intestines [5]. Ryo Katsumata et al. found in patients with the IBS-D variant a gene candidate for the TPH1 biomarker rs211105 T, encoding an enzyme that limits the rate of biosynthesis of 5-HT serotonin receptors [10].

An interesting study published in 2017 examined the effects of FODMAP diets on CVH in rats. The FODMAP diet includes fermentable oligosaccharides, disaccharides, monosaccharides and polyols and, according to various studies, enhances the symptoms of IBS. In this study, rats received FODMAP rich foods. As a result, there was an increase in the number of gram-negative bacteria, an increase in lipopolysaccharides in the feces, inflammation of the intestinal wall, impaired barrier function and CVH. These changes were prevented by the use of antibiotics and regressed against the background of a poor FODMAP diet. Thus, all these processes (the nature of nutrition, intestinal microbiota, intestinal barrier, inflammation and CVH) are very interconnected [13,25,26].

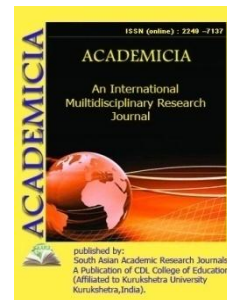
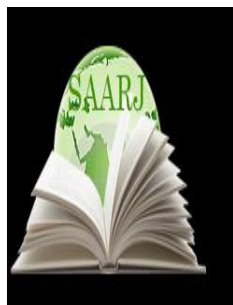
**CONCLUSION**

Thus, the data obtained at present indicate that the above concept, according to which IBS should be understood as a complex of functional disorders, which cannot be explained by other existing changes, can no longer be considered fair. Depending on the predominance of certain etiological and pathogenetic factors, they need differentiated treatment, when in some cases dietary measures are the basis of treatment, in others - the appointment of drugs that reduce inflammation of the intestinal mucosa (for example, mesalazine), and in the third - the use of probiotics and etc. Future studies will apparently determine not only clinical, but also pathogenetic variants of this common disease.

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## NATIONAL POLICY

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### ABSTRACT

*This article discusses the role, influence, and internal and external policies of society in the development of society. There is also a wide range of views on national policy. The article also covers the most pressing issues of current time.*

**KEYWORDS:** *Humanity, Society, State, Economy, Politics, Culture, Morality, Modern Uzbekistan.*

### INTRODUCTION

Economic, social, political, cultural, spiritual, educational events play an important role in the life of a person, society, country and state. Politics is an important part of political events. Politics is the art of state management, which is the sphere of activity associated with the interaction of different social groups in society.

Article 10 of the Constitution of the Republic of Uzbekistan states that no society, political party, public association, social movement or individual shall have the right to act on behalf of the people of Uzbekistan.

Only the OliyMajlis (Supreme Assembly) and President of the Republic - the head of state and executive power - may act on behalf of the people of Uzbekistan. Another important factor is the effective participation of citizens' self-government bodies in the implementation of these tasks.

The function of the state on the principles of social justice and legality in the interests of the people and society. The state safeguard the rights and lawful interests of public associations and provide them with equal opportunities to participate in public life. The nature of the policy differs by its purpose and ways of implementing it and by the degree of expression of its interests. It is manifested in "fair" or "unfair politics" and so on.

Policies have different impacts on the development of countries and peoples. Whether it can play a positive or negative role can be learned from the experience of the former totalitarian system

and the lives of some other states. Politics is associated with the combination of interests of various social groups and forces. Otherwise, political life can lead to political decay, including chaos and disunity.

## **MATERIALS AND METHODS**

Politics began with the formation of a mechanism of state power and has been active since the primitive times. Further study of the technology of power in Eastern states (Egypt, Babylon, Sumer, Akkadian, Med, Persia, India, China, Assyria, Urartu), Greek police, Roman Republic, Bactria, Sogdiana, Margiana, Parthia, Kushan There was a need to find, political knowledge and theoretical and methodological foundations. The first set of political ideas and doctrines, rules and regulations on the political management and skill and art of society have been created and put into practice.

Hammurappi's Laws, Manu's Laws, Politics of Politics in the Avesta, Likur, Drakant, Solon Laws, Confucian, Socrates, Plato, Aristotle's Political Doctrines, Justinian Codes, Temuric Powers, Forobi, Beruni, Avicenna, Navoi, Babur Political ideas and political ideas, ideas, doctrines that have arisen in different parts of our homeland We serve as a resource in the field.

Nowadays the concept of "politics" is used both broadly and narrowly.

It is, in a broad sense, an objective picture of political social life. It covers all social events and processes occurring in the political, economic and cultural spheres of society. Because it is difficult to find events and processes that are completely free from politics.

Any social phenomenon in society is political. Therefore, in a broader sense, it involves interrelated social phenomena in all areas of political society.

Politics "is often used in the narrow sense. In this case, it is used as one of the specific sectors of society, in combination with the economy and culture.

In a brief sense, politics covers the activities of public authorities, political parties, socio-political movements, public organizations within the country and their relations. This notion includes the activities of states, various political forces, organizations in the international arena, and their relations.

Politics is one of the most complex social events in society. The policy is divided into two types - domestic and foreign (international).

Domestic policy is the activity carried out by the state bodies, political parties and public organizations inside the country. It aims to achieve the goals and objectives announced by various social groups. Domestic policy is divided into state development, policy, social, economic and cultural policies in accordance with the basic areas of society. In turn, these areas are also subdivided into internal networks. For example, economic policies are divided into: productive privatization policies, pricing and credit policies, financial policy, agrarian policy and more.

Foreign policy is an international activity carried out by government agencies, political parties and public organizations. It is an integral part of the domestic policy, reflecting the character of the state and the social system, and strives to provide a favorable international environment for achieving the goals and objectives declared by certain social groups.

As in domestic politics, foreign policy is divided into different directions. For example, the policy of the Republic of Uzbekistan with regard to the West, Middle and Middle East, East and Arab countries, foreign economic policy, foreign cultural policy and so on.

Domestic policy is not the same in purpose and essence. By virtue of the nature and function of the government, there may be advanced policies, noble, constructive or reactionary, destructive policies.

Good, creative, progressive politics of peoples, nations. Consistently protects the fundamental interests and needs of nations, workers. This policy will be an important tool in addressing urgent and global issues of social development. It creates new factors for the further development of the outdated and new rules of life, increases the material welfare of citizens. This policy corresponds to the objective direction of history and further refreshes it.

## RESULT AND DISCUSSION

The concept of politics is also used in the sense of national politics. Usually, the concept of national policy is understood in two ways: First, the general policy pursued in a particular national state. It is well known that the state is formed mainly on a national basis. That is, for example, the France-French state is the main ethnicity and the majority of the population, or the China-Chinese state is the majority of its population and gives it its name. That is why in such countries the notions of "state" and nation are to a certain extent equal. Therefore, in some countries, the term "national policy" means a set of policies, businesses, decisions, decrees, guidelines and orders that apply to the entire population of the country.

Secondly, the meaning of "national policy" is that in many countries, especially in the Commonwealth of Independent States (CIS), the term "interethnic policy" means. In this sense, the importance of national politics is increasing every year. There are a number of reasons for this:

1. Almost all countries in the world are multinational countries. As the culture, consciousness, and national pride of each individual nation grow, the interrelations of nations and nations in each country are becoming more and more diverse. Consequently, the principles and essence of the interethnic policy of the state are based on the principles of mutual respect, cooperation, friendship and interethnic tension in the relations between nations and nations living in one country.

2. National politics has become one of the basic principles of modern democracy. According to this principle, every person on the planet, regardless of nationality, religion, race, language, sex, age, political beliefs, education, has the right to choose his own residence, to live in any part of the world, state or country. As a result, the national composition of the population of many countries is changing dramatically, and the interactions, relationships and contacts of the representatives of different nationalities are growing and developing year by year.

Uzbekistan is no exception in this case, when the census of 1897 determined that the territory of Uzbekistan was inhabited by 70 nationalities, the figure was 93 in 1926, 113 in 1957, 123 in 1989, and 139 in 2005.

The total number of non-indigenous people living on the territory of Uzbekistan has increased tenfold over the past century. However, the total population of the Uzbek people has also grown

tenfold in this century, so the Uzbek population has not diminished. At present, Uzbeks make up about 4/5 of the population of Uzbekistan. In addition, 4.0% of the population is Russian, almost 5% are Tajiks, 4.5% are Kazakhs and 1.8% are Tatars.

In a democratic Uzbekistan, the level of multinational population is growing. However, due to the qualities of tolerance, modesty, and tolerance inherent in our nation, interethnic conflicts, conflicts and hostility have never existed in our country. Our people are not against immigrants. Only they must abstain from nationalism, chauvinism, fundamentalism, religious and social passions, opinions and evil intentions. As for leaving Uzbekistan, it is also being addressed in accordance with democracy.

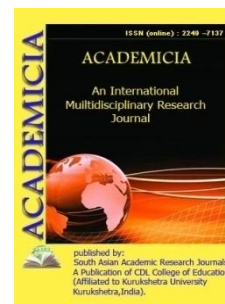
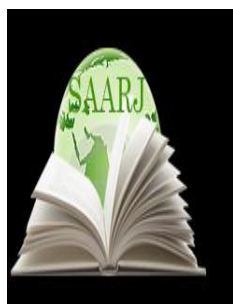
## CONCLUSION

In accordance with the Decree of the President of the Republic of Uzbekistan "On the Strategy of Action for the Further Development of the Republic of Uzbekistan", the "national policy" focuses on further developing the principles of cooperation, equality, tolerance and tolerance in interethnic relations.

The goal is to build a new Uzbek state with a multi-ethnic population of our independent country.

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## IMPLEMENTATION AND IMPACT OF SARFAESI ACT 2002

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### ABSTRACT

*Banks are the foundation of any nation as they are inescapable for the monetary advancement of a nation. Investors are the absolute entirety of any business. Banks are delegates between the investors and borrowers. This connection separates when the borrower neglect to reimburse the vital and premium sum; subsequently the banking segment concentrate on the issue of Non-Performing Assets. So far as India is worried, before 2002 banks have no alternative other than implementing the security through a court/tribunal, to recoup its duty. On the suggestion of Narasimham Committee –II SARFAESI Act 2002 came as a sigh of relief for the banking sector. This demonstration enabled the banks and budgetary organizations for the procurement of the secured resources of the borrowers held with the bankers at the time of availing loans. This paper endeavors to concentrate the execution and effect of SARFAESI Act 2002 for the administration of NPA in Indian Banking.*

**KEYWORDS:** *Economic Development, Inevitable, Narasimham Committee-II, Sarfaesi Act 2002, Secured Assets.*

### INTRODUCTION

Banks are ineluctable and vital for the financial advancement of a nation. Banks act as intermediary amongst investors and borrowers. Accepting of deposits from the contributors and loaning of credits to the borrowers are the essential functions of banks. They provide interest for deposits and gather interest for advances. In this way banks act as a critical connection amongst investors and borrowers. This tie separates when the borrowers neglect to reimburse the principal and the intrigral sum as concurred. This outcomes in Non-Performing Assets for the banking industry. At the point when the cash is held up in non-performing resources the liquidity of the

loaning broker is tied up bringing about crippling of credit improvement and financial exercises. The banks are demanding for securities while availing loans from the borrowers so that they can sell the securities and recoup the sum. The bank confronts a significant measure of issues in this methodology generally relating to the basic laws of the nation which are excessively awkward. It might take years to get an announcement. In India, before 2002, banks have no choice to recoup its duty by upholding the security through a court/tribunal.

Keeping in mind the end goal to make the framework simpler for the recuperation of credits or NPAs from the defaulters, Narasimham Committee mandated identification and reduction of NPAs to be treated as a national priority because NPA direct toward credit risk that bank faces and its efficiency in allocating resources. For this they suggested the arrangement of the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act 2002, where the NPAs could be recouped from the defaulter without intercession of court by having the advantages of borrowers in India.

## REVIEW OF LITERATURE

**Gurumoorthy and Sufha (2012)** analyzes the classification of loan assets in PSBs, composition of NPAs in different sectors and NPAs position in PSBs. In this study, it is observed that PSBs exercised stringent control measures to reduce the level of NPAs. The author concludes that Non-Performing Assets may not turn banks into Non-performing banks; instead steps should be taken to convert Non-Performing Assets into Now –Performing Assets. As far as old NPAs are concerned, a bank can remove it on its own or sell the assets to Asset Management Companies to clean up its balance sheet.

**Chanchal (2013)-** highlights the assessment of different systems utilized by the general population division banks for the administration of non-performing resources (NPAs). The review likewise dissected the effect of securitization enactment in the administration of NPAs in the banking industries. To achieve this objective after managing account organizations working at their nearby, territorial and zonal levels have been drawn nearer to give the imperative information and data. The review uncovers that the NPAs have not just influenced the benefit of the banks and budgetary organizations, additionally put a chaos on the picture of Indian saving money and a deplete on the very esteem arrangement of the general public.

**Samir and Kamra (2013)** analysed the position of NPAs in some banks to be specific State Bank of India(SBI), Punjab National Bank (PNB) and Central Bank of India (CBI). It additionally highlights the arrangements sought after by the banks to handle the NPAs and proposes a multi-pronged system for expedient recuperation of NPAs in saving money segment. The review traverses the period beginning from FY 1996-1997 to FY 2009-2010. The creators dissected the patterns in NPAs regarding Values, gross and net NPAs as a rate of gross advances and net advances, gross and net NPAs as a rate of Total Assets individually. The paper insights about the segment astute order of NPAs, purposes behind their event, the impacts of NPAs on banks and recurrence conveyance of open division banks by proportion of net NPAs to net advances.

**Chanderaappa, P. (June 2014)** suggested that to improve the efficiency and profitability of banks the NPA need to be reduced and controlled. NPAs have been fighting cyclical movement or dieses on week patient and it is an underdevelopment feature like chronic poverty. It reflects the performance of banks. Reduced NPAs generally gives the impression that banks have

strengthened their appraisal processes over the years and growth in NPAs involves the necessity of provisions, which bring down the overall profitability of banks.

**Rao, M. and Patel, A. (March 2015)** considered the aggregate data of public sector, private sector and foreign banks and attempts to compare analyze and interpret the NPA management from the year 2009- 2013. The findings reveals that the percentage of Gross NPA to Gross advances is increasing for public banks, ratio of Loss Advances to Gross Advances are higher in foreign banks, the Estimated Gross NPA for 2014 is also more in public banks as compared to private and foreign banks and from the ANNOVA test, it is concluded ratio of Gross NPA to Gross Advances for public sector, private sector and foreign banks does not have significant difference between 2009-13.

**Shaardha and Jain(2016)**analyse the position of NPAs in 5 noteworthy banks of SBI, CBI, BOB, CB, and PNB. It likewise highlights the expansion in the proportion of NPA influencing the benefit of the banks. The review traverses the period beginning from 2008 to 2014. The Gross NPAs level of the general population division banks in the year 2012 was 2.94% and expanded in 2013 to 3.42 % and in the year 2014 it has additionally expanded to 4.4%. The paper insights about the quantity of cases alluded to Lok Adalat, DRT and SARFAESI Act.

After considering the viewpoints of different scholars it has been observed that NPAs pose a serious danger to the banking industry. It deserves utmost attention, since bad loans ultimately affect the economy of the country. The Private Sector Banks have outperformed both Public Sector Banks and Foreign Banks in this key parameter of the Banking business for the period under reference i.e. from 2005-06 to 2015-16.

## OBJECTIVE OF THE STUDY

In the light of above discussion the main objectives of the paper is :-

- To study the causes of NPA in banking industry.
- To study the impact and implementation of SARFAESI Act 2002.
- To study the effectiveness of SARFAESI Act.
- To study the latest amendments with respect to the Act studied in this paper.

## RESEARCH METHODOLOGY

The method of study adopted in this paper follows a mixed approach of qualitative analysis as well as quantitative analysis of the data collected from annual report of Reserve Bank of India Publication “ Trend and progress of banking in India. The articles and papers published in different business journals, magazines, newspapers, periodicals were studied and data available on NPAs recovery have been used for analysis. Statistical tools like percentages used for analysis.

## FACTORS RESPONSIBLE FOR NPAs

The following factors confronting the borrowers are responsible for incidence of NPAs in the banks:-

- (i) Diversion of funds for expansion/modernization/setting up new projects/helping promoting sister concerns.
- (ii) Time/cost overrun while implementing projects.

- (iii) External factors like raw-material shortage, raw-material/input price escalation, power shortage, industrial recession, excess capacity, natural calamities like floods, accident etc.
- (iv) Business failure like product failing to capture market, inefficient management, strike/stained labour relations, wrong technology, technical problem, product obsolescence etc.
- (v) Failure, non-payment/over dues in other countries, recession in other countries, externalisation problems, adverse exchange rate etc.
- (vi) Wilful default, siphoning of funds, fraud, misappropriation, promoters/management disputes etc.
- (vii) Government policies like excise, import duty changes, deregulation, pollution control orders etc.

Besides above, factors such as deficiencies on the part of the banks viz. deficiencies in credit appraisal, monitoring and follow-up; delay in release of limits; delay in settlement of payments/subsidies by Government bodies etc. are also attributed for the incidence of NPAs.

RBI has taken many measures to lessen the level of NPAs in managing an account part by actualizing the methods. The way toward borrowing additionally gets ostentations because of increment in NPAs level. The main thing which will support the borrowing and enhance the benefit of banks is legitimate recuperation of advances. To enhance the determination or recuperation of bank advances, IBC (Insolvency and Bankruptcy Code) has been ordered and revised the SARFAESI (Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest) Act and RDDBFI (Recovery of Debts because of Banks and Financial Institutions). Further, six new Debt Recovery Tribunals (DRTs) have been built up for enhancing recuperation.

### **Trends of NPAs In Public Sector, Private Sector and Foreign Banks**

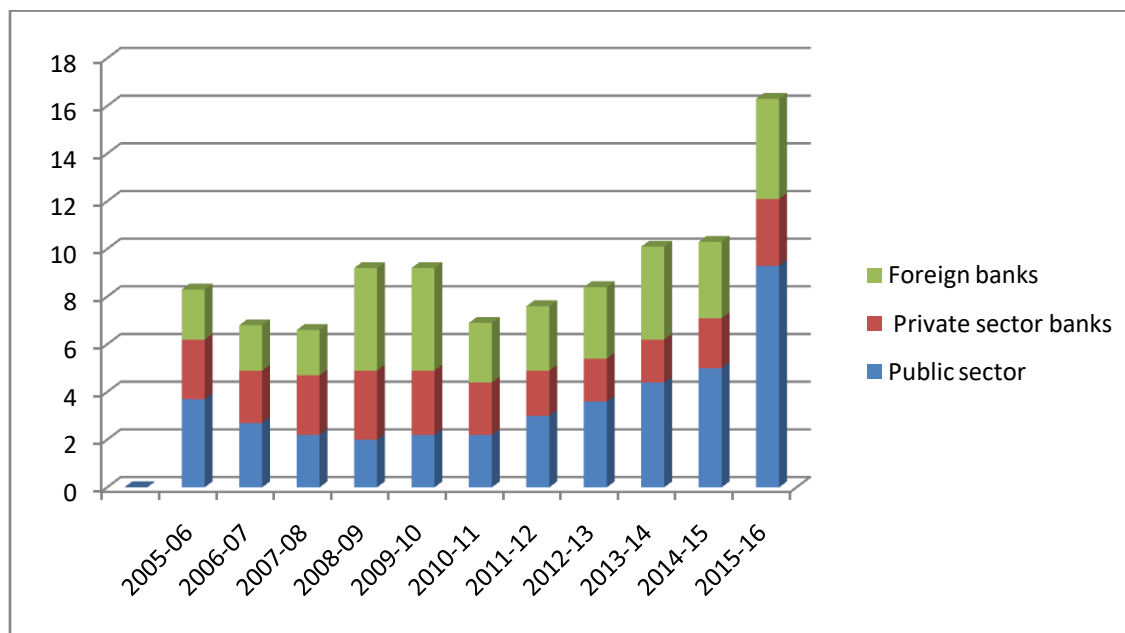
**(Amt. in Rs. Billion)**

<b>% of Gross NPAs to Total Advances</b>				
<b>Year</b>	<b>Public sector Banks</b>	<b>Private sector banks</b>	<b>Foreign banks</b>	<b>All Scheduled Commercial banks</b>
2006-07	2.7	2.2	1.9	2.5
2007-08	2.2	2.5	1.9	2.3
2008-09	2.0	2.9	4.3	2.3
2009-10	2.2	2.7	4.3	2.4
2010-11	2.2	2.2	2.5	2.3
2011-12	3.0	1.9	2.7	2.8
2012-13	3.6	1.8	3.0	3.2
2013-14	4.4	1.8	3.9	3.8
2014-15	5.0	2.1	3.2	4.3
2015-16	9.3	2.8	4.2	7.5

**(Source:- [www.dbie.rbi.in](http://www.dbie.rbi.in))**

It has been obviously shown from the table that percentage of gross NPAs of Public sector banks has quickly on expanding pattern in contrast with private sector banks and foreign banks. The private sector banks especially have the NPAs, but not exactly to the foreign banks which focus

to their proficiency of NPA administration. In any case, scheduled commercial banks show a rising pattern, demonstrating a deliberate exertion by these banks to decrease the NPA.



### Measures to Solve Problems of NPA

The issues of NPA have been getting more prominent consideration since 1991 in India. The Narasimham Committee prescribed various strides to diminish NPA. The Different sorts of recuperation process for NPAs are One Time Settlement Schemes, Lok Adalat, Debt Recovery Tribunal (DRTs), SARFAESI Act 2002, Assets Reconstruction Companies (ARC), Corporate Debt Restructuring (CDR), Credit Information Bureau. Among the above different approaches to recoup measures, the best routes rehearsed for recuperating NPAs from defaulters, are talked about underneath:-

#### ➤ Debt Recovery Tribunals (DRTs)

Narasimham Committee Report I (1991) prescribed the setting up of Special Tribunals to decrease the time required for settling cases. Tolerating the proposals, Debt Recovery Tribunals (DRTs) were set up. There are 22 DRTs and 5 Debt Recovery Appellate Tribunals. This is deficient to take care of the issue everywhere throughout the nation (India).

#### ➤ Lok Adalats

Lok Adalats have been discovered appropriate for the recuperation of little credits. As per the rules issued by Reserve Bank of India in 2001 they cover NPA up to Rs. 5 lakhs, both suit recorded and non-suit documented are secured. Lok Adalats keep away from the legitimate procedure.

#### ➤ Compromise Settlement

Trade off Settlement Scheme gives a basic component to recuperation of NPA. Bargain Settlement Scheme is connected to propels underneath Rs. 10 Crores. It covers suit recorded

cases and cases pending with courts and DRTs (Debt Recovery Tribunals). Instances of Willful default and misrepresentation were rejected.

### ➤ Credit Information Bureau

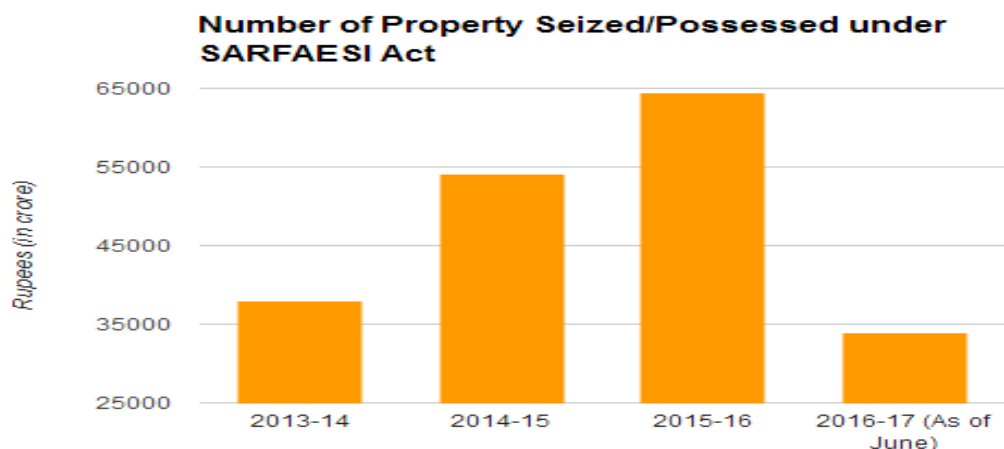
A decent data framework is required to keep advances from transforming into a NPA. On the off chance that a borrower is a defaulter to one bank, this data ought to be accessible to all banks with the goal that they may abstain from loaning to him. A Credit Information Bureau can help by keeping up an information bank which can be surveyed by all loaning organizations.

### ➤ SARFAESI ACT 2002

The Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI) enables Banks/Financial Institutions to recoup their non-performing resources without the intercession of the Court. Banks use this as a compelling instrument for terrible credits (NPA) recuperation. It is conceivable where non-performing resources are sponsored by securities charged to the Bank by method for hypothecation or home loan or task.

The Securitisation Act additionally enables the banks to assume control over the ownership of the advantages and administration of the organization. The moneylenders can recoup the duty by offering the advantages or changing the administration of the firm. The Act likewise empowers the foundation of Asset Reconstruction Companies for acquiring NPA. According to the provisions of the Act, Asset Reconstruction Company of India Ltd. with eight shareholders and an initial capital of Rs. 10 crores has been set up. The eight shareholders are HDFC, HDFC Bank, IDBI, IDBI Bank, SBI, ICICI, Federal Bank and South Indian Bank.

The implementation of SARFAESI Act 2002 has helped to manage the NPAs at lower level by allowing the lenders to recover the loan from the defaulters without the intervention of court. The SARFAESI Act allows banks and other financial institutions to auction residential and commercial properties when borrowers default on their payments. This helps the banks to reduce their NPA by recovery and reconstruction. Under this Act, 64,519 properties were seized or taken possession off by the banks in 2015-16. In the financial year 2016-17 as of June, the number stands at 33,928.



**The Act empowers the Bank:**

- (i) To issue request notice to the defaulting borrower and underwriter, calling upon them to release their contribution in full inside 60 days from the date of the notice.
- (ii.) To pull out to any individual who has procured any of the secured resources from the borrower to surrender the same to the Bank.
- (iii.) To solicit any account holder from the borrower to pay any total due or getting to be plainly because of the borrower.
- (iv.) Any Security Interest made over Agricultural Land can't be continued with.

**Techniques for Recovery of NPA's under the SARFAESI Act**

The Act gives three option techniques to recuperation of NPA's in particular Securitization Asset Reconstruction and Enforcement of security without court mediation. They are as per the following:-

**Securitization:** - It suggests the issue of security receipt by raising of assets by SCs/ARCs. A securitization organization reproduction organization may raise stores from just the QIB (Qualified Institutional purchasers) by framing plans for procuring money related resources. These organizations keep up particular records for each obtained monetary resource. Acknowledge of such resources are held and connected towards the recovery of ventures and installments of guaranteed returns.

**Resource Reconstruction:-** The SCs/ARCs purchase the NPAs from banks and take the accompanying measures to recuperate awful advances sum from the borrowers:-

- a) Proper administration of the borrower business.
- b) Changing the administration of the borrower business.
- c) Takeover the administration of the matter of the borrower
- d) Sale or rent.
- e) Restructuring the matter of the borrower.
- f) Rescheduling of the reimbursements of obligations payable by the borrower.
- g) Enforcing the security intrigue.
- h) Taking the ownership of secured resources.
- i) The sum recuperated by ARCs will be utilized to remake the organization's administration

**Exception from Registration of Security Receipt:-**

The Act gives not withstanding anything contained in the Registration Act, 1908 for implementation of security without court intercession.

- (a) Any security receipt issued by SCs/ARCs under the segment 7 of the Act and not making, pronouncing, doling out any right, title or enthusiasm to or in resolute property aside from in so far as it entitles the holder of the security receipt to a unified intrigue.

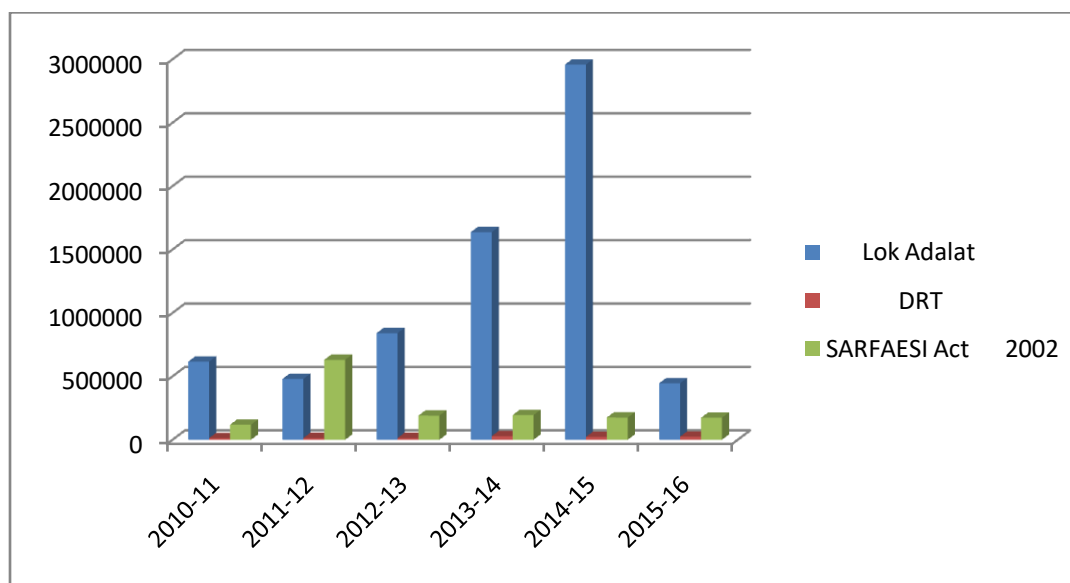
(b) Any exchange of security receipts, should not require necessary enrollment.

The technique for study embraced in this paper takes after a blended approach of subjective investigation and in addition quantitative examination of the information gathered from yearly report of Reserve Bank of India Publication "Pattern and advance of managing an account in India " ,Statistical tables identified with banks in India. The articles and papers distributed in various business diaries, magazines, daily paper, periodicals were considered and information accessible on NPAs recovery has been utilized for investigation.

### **Number of Cases of NPAs referred**

Year	Lok Adalat	DRT	SARFAESI Act 2002
2010-11	616018	12872	118642
2011-12	479073	13365	630429
2012-13	840691	13408	190537
2013-14	1636957	28258	194707
2014-15	2958313	22004	175355
2015-16	445634	24537	173582

(Source:- [www.dbie.rbi.in](http://www.dbie.rbi.in))

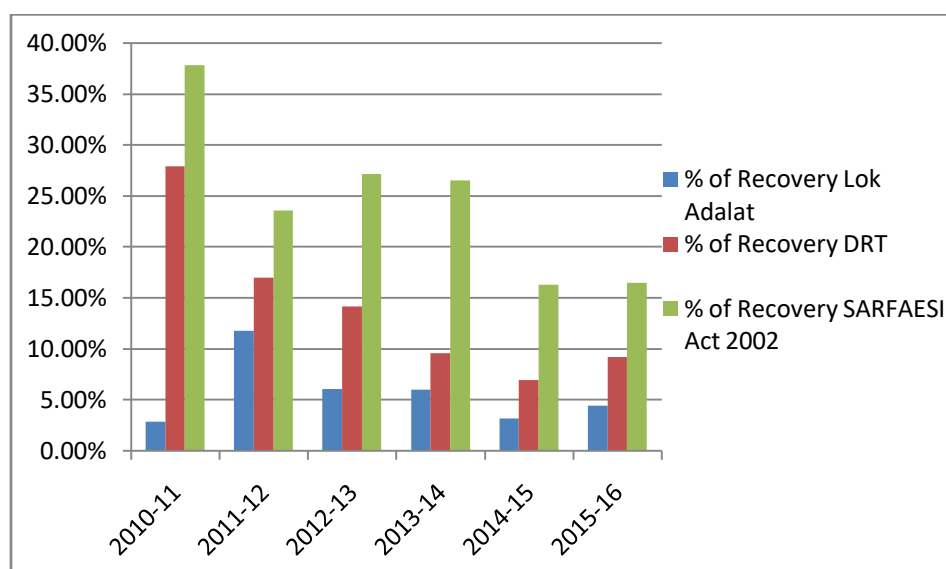


The information has been gathered with reference to investigate the instances of NPAs alluded to different channels for the repayment reason. It has been observed that number of instances of NPAs referred to different recovery channels has been enormously on rising pattern from 2010-11 to 2015-16. Be that as it may, there is a apex purpose of thought concerning administration of NPAs as these channels likewise not able to legitimate recovery of considerable advance cases. The number of cases referred towards Lok Adalat has been more than the cases referred to DRT and SARFAESI act 2002. This happens due to lack of awareness among public concern for the efficiency of this act. But this has been clarified from the table showing percentage of recovery of NPAs cases.

**Amount Recovered through Various Channel**

Year	% of Recovery Lok Adalat	% of Recovery DRT	% of Recovery SARFAESI Act 2002
2010-11	2.87%	27.89%	37.78%
2011-12	11.80%	17%	23.60%
2012-13	6.10%	14.19%	27.16%
2013-14	6.03%	9.58%	26.55%
2014-15	3.2%	6.95%	16.33%
2015-16	4.44%	9.24%	16.48%

(Source:- [www.dbie.rbi.in](http://www.dbie.rbi.in))



The above mentioned table and diagram describes about the level of NPAs recovery through different channels i.e. Lok Adalat, DRT and SARFAESI Act 2002 from 2010-11 to 2015-16. The percentage of recovery from SARFAESI act is quite more in the initial years as 37.78% in comparison to the other recovery channels. With the increase in the number of cases referred to the different recovery channels their efficiency continued to be increasing year on year basis and percentage of recovery of NPAs going to be decreasing or increasing in different recovery channels.

**Amendments to the SARFAESI Act**

The SARFAESI Act permits secured lenders to take ownership over a guarantee, against which a credit had been given, upon a default in reimbursement. This procedure is attempted with the help of the District Magistrate, and does not require the intercession of courts or tribunals. The Bill gives that this procedure should be finished inside 30 days by the District Magistrate.

- In expansion, the Bill engages the District Magistrate to help banks in assuming control over the administration of an organization, on the off chance that the organization can't reimburse advances. This will be done on the off chance that the banks change over their extraordinary obligation into value offers, and therefore hold a stake of at least 51% in the organization.

- The Act makes a focal registry to keep up records of exchanges identified with secured resources. The Bill makes a focal database to incorporate records of property enlisted under different enrollment frameworks with this focal registry. This incorporates joining of enrollments made under Companies Act, 2013, Registration Act, 1908 and Motor Vehicles Act, 1988.
- The Bill gives that secured leasers won't have the capacity to take ownership over the guarantee unless it is enrolled with the focal registry. Encourage, these banks, after enlistment of security premium, will have need over others in reimbursement of duty.
- The Act engaged the Reserve Bank of India (RBI) to analyze the announcements and any data of Asset Reconstruction Companies identified with their business. The Bill additionally enables the RBI to complete review and examination of these organizations. The RBI may punish an organization if the organization neglects to follow any headings issued by it.
- The Bill gives that stamp obligation won't be charged on exchanges attempted for exchange of monetary resources for resource reproduction organizations. Budgetary resources incorporate advances and insurances.

## CONCLUSION

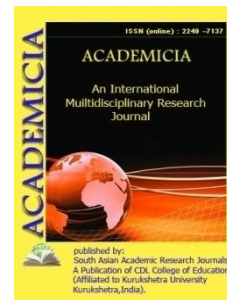
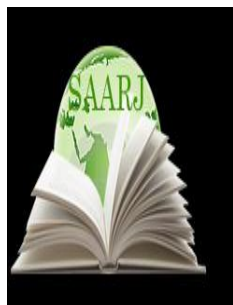
Numerous far reaching changes have been made in the Indian Banking Sector since 1991. The Indian banks were confronting more than Rs. 90,000 crores NPAs issue and were running under loss of benefit. The common laws of the nation were excessively awkward, making it impossible to way to deal with recoup the awful credits. The banks were seen attempting to lessen their NPAs level to keep up the dependability and benefit. Obligation Recovery Tribunals (DRTs) were set up for recuperation of advances of banks and organizations. At first DRTs performed well, however their advance was endured when they get overburdened with the vast number of cases alluded to them. The kingfisher Airlines Mr. Vijay Malaya, Chennai based online instruction promoter Agnite Education Ltd., Mumbai based Shreem Corporation Ltd., soon is considerable rundown of 'obstinate defaulters' has been recognized by the investors like State Bank of India and others SBI has started activity against them by taking after the SARFAESI Act, 2002. It demonstrates that recuperations in NPAs are made less demanding by the alterations of SARFAESI Act 2002 and open the entryway for financiers to recoup their sums being recognized as NPAs.

The development of the SARFAESI Act has been a touchstone in the rundown of the changes in the Indian saving money division. The advance of this Act can be confirm by the way that amid 2002-03 the non-performing credits were 9.4% of gross advances which were lessened to 4.4% in 2014. The administration has received a few measures to handle disorder in Indian keeping money segment through nationalization of banks and alleviation measures however the legislature was required to take more compelling measures to diminish the level of developing NPAs in the managing an account area and the restoration of a solid budgetary saving money division in the nation.

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## **EFFECTS OF TREATMENT OF SOIL IN DIFFERENT METHODS AND DEEPS ON AGROPHYSICAL PROPERTIES OF SOIL AND CROP YIELD**

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### **ABSTRACT**

*The article provides information on the impact of soil compaction and crop yields on the cultivation of cotton, winter wheat and secondary crops on the basis of various tillage technologies. It is known that the wheels of tractors and machine-tractor aggregates compact the soil, changing its physical properties, adversely affecting the processes taking place in it, leading to disruption of the living conditions of microorganisms, ie deterioration of water, air and biochemical processes.*

**KEYWORDS:** Cotton, Winter Wheat, Secondary Crops, Tillage, Compaction, Yield

### **INTRODUCTION**

Today in the country as a result of short-term quality preparation of lands and application of resource-saving agro-technologies of basic tillage in order to obtain high and high-quality yields

of cotton and cottonseed crops in the country to develop low-cost, ecologically pure products, as well as improving agrophysical and agrochemical properties. to fully meet the needs of food and livestock in feed products, to increase the productivity of cotton and cottonseed crops, as well as to improve their quality.

### The relevance of the problem

It is known that the wheels of tractors and machine-tractor aggregates compact the soil, changing its physical properties, adversely affecting the processes taking place in it, leading to disruption of the living conditions of microorganisms, ie deterioration of water, air and biochemical processes. As a result, it has a negative impact on seed germination and plant growth, which in turn reduces plant productivity.

In the conditions of the old irrigated gray soils of Tashkent region, the volume of soil in the driving layer (0-30 sm) is higher than in the summer after plowing in the summer at a depth of 28-30 sm and repeated sowing in the summer at 28-30 sm. 0.04-0.03 and 0.03-0.05 g / sm<sup>3</sup> and 0.03 and 0.02 g / sm<sup>3</sup> in the underlying layer (30-50 sm), with a porosity of 1.0 and 1, respectively. Up to 1%, these figures indicate that cotton is an optimal condition for good growth and development [2, 3].

In addition to the recommended norm of mineral fertilizers N<sub>200</sub> P<sub>140</sub> K<sub>100</sub> kg / ha in winter wheat, the use of black manure and compost served to increase the amount of nutrients in the soil, while the cultivation of mosh as a secondary crop after winter wheat the amount of 0.007-0.013%, the total amount of nitrogen by 0.005-0.009%, the amount of total phosphorus by 0.008-0.011%. This, in turn, serves to improve the agrophysical properties of the soil [1].

Many years of research by scientists around the world have shown that the amount of organic matter in the soil, agrochemical, agrophysical properties, moisture, the introduction of resource-saving technologies improves the efficiency and cost-effectiveness of conventional driving [4, 5].

### Research conditions and methods

In order to improve the technology of tillage before sowing of primary and secondary crops in the conditions of ancient irrigated typical gray soils of Tashkent region and light gray soils of Andijan region, to improve the agro-physical properties of soils and increase crop yields through the use of source technologies in maintaining soil fertility in 2014-2019 years.

The first field experiment was conducted in 2014-2019 in the conditions of typical irrigated gray soils of Tashkent region, the soil of the experimental area is typical gray, irrigated from scratch, the mechanical composition is heavy, moderately sandy, groundwater is located at a depth of 18-20 m. Experiments on the cultivation of cotton and cottonseed crops (winter wheat, secondary crops, cotton) were carried out on the basis of Table 1.

**TABLE 1 EXPERIMENTAL SYSTEM**

№	Options	Crop type
1	Accepted technology (driving to a depth of 28-30 cm + harrowing + mulching + planting)	Winter wheat + mung bean + cotton
2	One-way planting technology, cultivating to a depth of 25–30 cm using a permanent pink chisel	Winter wheat + mung bean + cotton

3	Year-round plowing technology (winter wheat and secondary crops are planted on a permanent basis, cotton is plowed)	Winter wheat + mung bean + cotton
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The second field experiment was conducted in 2017-2019 in the conditions of light gray soils of Andijan region, the mechanical composition is sandy, unsalted, groundwater is located at a depth of 4-5 meters. In the main tillage of the soil in the experimental field, a) chain techniques, b) wheel techniques, c) combination techniques were used and one-time winter wheat sowing methods were used (Table 2).

**TABLE 2 EXPERIMENTAL SYSTEMS**

№	Options	
	Soil cultivation method	Processing equipment
1	Processing and planting between rows of cotton	TT3-100 LS
2	Digging, plowing, mulching, planting at a depth of 28–30 sm	BT-150 (chained)
3		Magnum-8940 (wheeled)
4	By cultivating the soil, take a lump and plant	Advanced -1 aggregate

### Research results

It is known that the wheels of tractors and machine-tractor aggregates compact the soil, changing its physical properties, adversely affecting the processes taking place in it, leading to disruption of the living conditions of microorganisms, ie deterioration of water, air and biochemical processes. As a result, it negatively affects the growth and development of plants, which in turn leads to a decrease in plant productivity.

The results of the study showed that soil compaction adversely affects the root development of young seedlings, slows down the growth process of the plant and leads to a decrease in yield. In order to get an early and high yield, it is necessary to choose the right agricultural machinery and tools during the sowing and application period.

When studying the agrophysical properties of the soil in the first experimental field in 2014 (18.10.2014), in the 1st variant the volume mass in the driving layer (0-30 sm) was 1.318 g / sm<sup>3</sup>, porosity 51.5%, granularity 66.2%. , 1,331 g / sm<sup>3</sup> in the underlying (30–50 sm) layer, porosity 50.7%, granularity 65.5%, in variant 2, these figures are 1,334 volumetric mass in accordance with the layers; 1,347 g / sm<sup>3</sup>, porosity 50.6; 50.1%, grain size 61.1; 60.6%, and in option 3, the bulk density of the soil was 1,331; 1,344 g / sm<sup>3</sup>, porosity 50.7; 50.2%, grain size 62.6; 61.1% (Table 3).

In our study, in the summer of 2019, the technology of intermittent plowing, ie for the care of winter wheat and secondary crops, cultivates the previous crop with a cultivator at a depth of 8-10 sm, planted in a permanent row, in the 3rd variant of winter wheat plowing. at the end of the application period, the bulk density of the soil in the plow (0-30 sm) and sub-plow (30-50 sm) layers is 1,321-1,332 g / sm<sup>3</sup>, and the porosity is 51.1-50.7%, the grain size is 65.1; 64.3%.

Compared to the initial (18.10.2014) state of the experimental area, the volume mass decreased by 0.010-0.012 g / sm<sup>3</sup>, the porosity increased by 0.4%, the granularity increased by 2.5-3.2%, and the constant 28-30 sm. It was found that these values were reduced to 0.007 g / sm<sup>3</sup> for the 1st variant, which was driven at depth, and to 0.036 g / sm<sup>3</sup> for the 2nd variant, which was treated with a chisel at a depth of 25-30 sm (table 2).

**TABLE 3 THE EFFECT OF APPLICATION OF TILLAGE TECHNOLOGY ON THE SOIL IN TERMS OF VOLUME, MASS AND POROSITY OF THE SOIL.**

№ Options	Layers, sm	Initial condition (18.10.2014 y.)			The year to the end of the study (11.07.2019 y.)		
		Mass size g/sm <sup>3</sup>	porosity, %	Grainy, %	Mass size g/sm <sup>3</sup>	porosity, %	Grainy, %
1	0-30	1,318	51,2	66,2	1,315	51,3	67,6
	30-50	1,331	50,7	65,5	1,326	50,9	65,9
2	0-30	1,334	50,6	61,1	1,360	49,6	55,0
	30-50	1,347	50,1	60,6	1,378	49,0	53,7
3	0-30	1,331	50,7	62,6	1,321	51,1	65,1
	30-50	1,344	50,2	61,1	1,332	50,7	64,3

At the same time, in our research (2014-2019), high yields were achieved in the variant with intermittent tillage technology, with a grain yield of up to 59.8 centner / ha from winter wheat, up to 14.1 centner / ha from re-sowing, and 41.0 centner/ha from cotton. Compared to the options used in other processing technologies, the yield of winter wheat is up to 4.2 centner / ha, secondary crops - up to 2.1 centner / ha, and cotton - up to 14.1 centner / ha additional yield was obtained. Under the specific influence of open-field techniques treated using various high-yield techniques, different volume masses were obtained in the soil layers. For example, by using a BT-150 tracked tractor, 1.35 g / sm<sup>3</sup> in the driving layer (0-30 sm) and 1.39 g / sm<sup>3</sup> in the bottom (30-50 sm) layer at the end of the winter wheat field in the planted area, Magnum-8940 wheeled in the tractor-treated variant, these values were 1.36 and 1.40 g / sm<sup>3</sup>, respectively, and in the variant treated with the Advanced-1 combination unit, 1.34-1.38 g / sm<sup>3</sup>.

In the second experimental field, before sowing the winter wheat in the soil, its bulk mass was 1.30 g / sm<sup>3</sup> in the driving (0-30 sm) layer and 1.33 g / sm<sup>3</sup> in the sub-driving (30-50 sm) layer.

**TABLE 4 EFFECT OF DIFFERENT TREATMENT ON SOIL COMPACTION (VOLUME MASS, G / SM<sup>3</sup>, 2017-2019)**

Opt. №	Layers, observation periods					
	Before treatment		After treatment		At the end of the validity period	
	0-30	30-50	0-30	30-50	0-30	30-50
1	1,30	1,33	1,34	1,36	1,37	1,41
2	1,30	1,33	1,32	1,34	1,35	1,39
3	1,30	1,33	1,33	1,35	1,36	1,40
4	1,30	1,33	1,31	1,34	1,34	1,38

At the same time, as a result of 3-4 times more penetration of machinery and equipment into the treated areas with the help of the combined unit Ilgor-1 and with the help of BT-150 chain and Magnum-8940 wheeled tractors compared to the surface-treated variants between the TT3-100 LS tractor and the cotton row. it was found that the bulk density of the soil increases to 0.01-0.02 g / sm<sup>3</sup>, and at the same time increases the cost of GDP and labor costs.

According to the data on grain and straw yield of winter wheat, the highest grain yield was observed with the help of the combined unit Ilgor-1 and between the rows of cotton with the tractor TT3-100 LS and 62.3-63.4 centner / ha. additional grain yield up to 10.9 centner / ha was grown in comparison with the variants treated with efficient machinery.

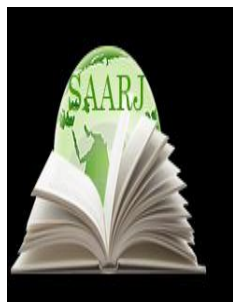
## CONCLUSION

Going into the sixth year of the first study, In the variant with intermittent plowing technology, in comparison with other technologies of cultivation in comparison with the initial state, the volume density of the soil mass is less than 0.007-0.036 g / sm<sup>3</sup>, high yield is obtained from cultivated crops and this method of cultivation has been proved once again to be an economically efficient resource-saving agrotechnology in increasing soil fertility as well.

In conclusion, according to the second experiment, with the use of the combined unit Ilgor-1 and the surface between the rows of cotton with a tractor TT3-100 LS, sowing of winter wheat at the same time, a decrease of 0.06-0.05 was observed.

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## EXPRESSION OF THE REALITIES AND PEOPLE OF THE WAR PERIOD THROUGH MYTHOLOGICAL IMAGES

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### ABSTRACT

*This article discusses the metaphorization of the realities and people of war period in modern Uzbek poetry through mythological images. The interpretation of mythological images on figurative sense in Uzbek modern poetry was analyzed in this article. Metaphorization of mythological images dragon, witch, hell and their representing figurative sense based on comparison in modern poetry was shown through the examples given from modern Uzbek poetry.*

**KEYWORDS:** *Modern Poetry, Mythological Image, Metaphor, Metaphorization, Dragon, Witch, Hell.*

### INTRODUCTION

There is a page in the history of the 40s of the world that its interpretation and description are also reflected in artistic creativity. These are, of course, the realities of World War II. It is no secret that war has killed millions of people, destroyed thousands of prosperous places, and brought endless disasters upon the nations.

Modern Uzbek literature also shows the expression of realities and people of the period through various mythological images in order to reflect the spirit of this period.

It is well known that the primitive man, interested in knowing the world around him and the causes of events, imagined it. As a result, mythological images emerged as emotional images.

Mythological images emerged as cognitive and conceptual generalizations of unknown events (for example, illness, war, lust) as a result of one's interest and need for knowledge in the process of cognitive activity.

Mythological images are mythonyms, which are in the languages of all nations and are codified based on the national and cultural concepts of each nation. Metaphorization of myths is often expressed in human contempt. For example, in the Uzbek literature the image of witch has become a symbol of intensive expression of greed (devil – a symbol of cunning, dragon – a symbol of evil, Azrail – a symbol of cruelty, hell – a symbol of suffering, giant – a symbol of hostility).

### **MATERIALS AND METHODS:**

The Russian scientist N.D. Arutyunova believes that "the more abstract and the more abusive meaning of the word, the easier it will be metaphorized"[1]. According to Aristotle, metaphor is an "abbreviated figurative comparison". In general, metaphorization is the use of words in a literal sense to create a vivid image and in order to express the emotional response to the subject to which the speech is spoken.

Symbols and metaphors are often used as a distinctive style of artistic expression. This means that through metaphorization the concrete image is conveyed to the reader's imagination.

In this article, the metaphorization of mythological images in modern Uzbek poetry is illustrated by examples from the works of modern poetry. The article was written by D.S. Uraeva, Dr. in Philology, "The stylization of prose tales in Uzbek children's literature"[9]. In our previous work on the metaphorization of the mythological images of the dragon, the devil, the witch in modern Uzbek poetry, we have made some analysis. At the heart of the metaphorical phenomenon lies the idea of simulation (acquired) that is obtained by comparison [4, p. 234]. And our work covered the subject of the war period.

**RESULTS AND DISCUSSION:** The interpretation of the Second World War in contemporary Uzbek poetry draws attention to the fact that the realities and people of the time were represented by mythological images.

In many poems on the subject of war, the image of war, invaders, cannons, fire can be seen mainly in the metaphors of dragons, Hitler, fighter jets, lizards, atomic bombs, and the battlefield shows through the hell image.

The dragon is one of the most complex and universal zoomorphic images, which is depicted in the oral folk art of various peoples as a two-winged, fire-breathing, two or three-headed mythical creature in the form of a snake [3, p. 23].

In the "Explanatory Dictionary of the Uzbek Language", the word dragon – "ajdaho" – comes from the Persian word, which means a mythical huge snake, and in a figurative sense is used to express hatred of an evil person, a bloodsucker [7, p. 44]. In fiction, it is mainly a symbol of evil and greed, and in a figurative sense serves to express hatred and greed.

In the "Brief conceptual theomorphic dictionary of metaphors of the Uzbek language", the image of a dragon is used in more than ten meanings [3, p. 24]. Also, the word "dragon" is used to express body parts (braids, eyes), very strong feelings (for example, love, passion, ruthlessness), negative character traits (boasting, greed, robbery), malicious system (for example, the former

totalitarian system, period of repression), illness (trouble, ailments), a difficult life full of trials, war, technical weapons, raiders, rapists, criminal groups, greedy people, as well as extremely capable people (athletes).

Oydin Hodzhieva, a representative of modern Uzbek poetry, used the dragon image to show that war is devastating, destructive, killing people everywhere:

Qishloqlarning ne-ne oghlonin

Yutdi urush degan ajdaho [8, p. 274].

(Translation: "The sons of the villages were swallowed up by a dragon called war".)

In poem "Mother", the powerful representative of the 20th century Uzbek poetry Tura Suleiman described Hitler as the witch and dragon:

Ajdaho misol elga

Baralla ochib oghiz,

Urush boshlaganida

Gitler nomli yalmoghiz,

Oldinma-keyin ketdi

Uch oghlim sallotlikka [6, p. 56].

(Translation: "My three sons went to the army one after the other when Hitler, the witch, opened his mouth like a dragon".)

In modern Uzbek poetry, the image of the witch symbolizes such concepts as war, sorrow, loss, greed, with its features such as swallowing, malnutrition and greed. This image is often used in a portable sense, not directly stylized, that is metaphorized, which ensures speech expression. It should be noted that "at the base of the metaphorical phenomenon lies the idea of identification (acquired) as a result of comparison".

The image of the witch is found in folklore of almost all the worlds, and in many folk fairy tales and epic poems have two aspects of it: the support and patronage of the epic hero and its opposing and destructive qualities. According to Kyrgyz mythology, the witch is a seven-headed demonomorphic creature. Ancient Turks have been compared to dragons by their appearance, which are considered to be active characters in the oral traditions of ancient Turks. In Uzbek folk poetic creation a witch is a mythical creature, who is depicted as a lonely ugly old woman. In the following lines from Jamal Kamal, the witch and the dragon were symbols of evil and greed:

Kelishdi barchasi noningni yeb,

Qoningni ichmakka,

Nahanglar, ajdaholar,

Yalmoghizlar ozmi tarikhda? [2, p. 233]

(Translation: "All came to eat your bread and drink your blood. Are there fewer sharks, dragons, witches in history?".)

This poetic passage uses shark, dragon and witch to describe invaders who invaded our homeland in the past. The destruction of the occupation by bloodshed, destruction, burning, ashes, and destruction is equated to the damage caused by the shark, the dragon and the witch. In addition, these traits portray aggression and greed, which are peculiar to the invaders. In general, the common characters that combine these three images are swallowing and greed.

Oybek's epic poem World War II also uses a witch metaphor. Signs of flying, sudden appearance, malice and magic by the witch are copied in fighter jets:

Davrim balosining shum qanotidan

Qarsillab quyildi yalmoghiz oti! [5, p. 58]

(Translation: "From the ominous wing of the disaster of my time, a fire of the witch cracked and poured".)

Each line of the poem is filled with deep human pain, sorrow and pain. The poet describes the atomic bomb as "a sinking in the sky", "witch fire", "catastrophic sun", "death light", "fire of dragon" and reflects the horrors of this weapon that threatens human life. Thus, the "plague of the time" - the "wing of the plane" from the plane's wing - describes how bombs were poured on people and, in an instant, "thousands of people" turned into ashes. As the poet writes about this, the American plane that brought the death to America is called the "crooked ass," with its metaphorical "incomparable executioner".

Words expressing mythical-religious concepts are considered to be fundamental in the formation of metaphors. In the following poetic passage, the atom is expressed by the metaphor of the "ambassador of hell":

Jahannam elchisi – atomni kordik,

Mahshar gulkhanini kordik qalovda.[2, p. 355]

(Translation: "We saw the ambassador of hell - the atom. We saw Mahshar's campfire in the castle".)

In the Great Patriotic War, balls are fired and the battlefield, which remains in the fire, is likened to hell:

Ona yurtim, deya tikdi-yu jonin,

Dozakh azobida qoldi-yu, biroq

Qilt etmadi uning idrok-imoni:

... «Ulug` vatan» sozi chiqdi osha choq. [8, p. 45]

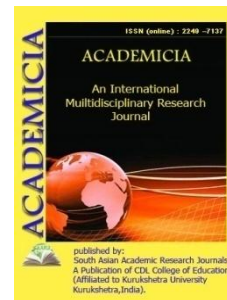
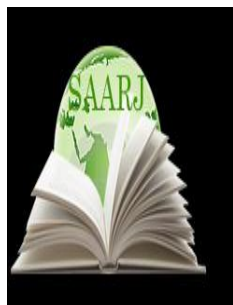
(Translation: "He sacrificed his life for his motherland. He was tormented in hell, but his perceptive faith did not falter and then the word "Great Motherland" came out".)

**CONCLUSION:** Thus, artistic speech, which is characterized by such categories as image and imagery, reflects the aesthetic function of the language. The metaphor is mainly used as an illustrative tool to influence the reader with a particular force, to create an image. Therefore, they express the various emotions of a person expressly. In modern Uzbek poetry mythological images play a special role in the interpretation of the theme of war in the creation of various

poetic and symbolic expressions. The writer uses mythological images of folklore in his writing to use them for his own purposes and ideas.

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## GROWTH AND DEVELOPMENT OF SECONDARY CROPS IN AREAS SUBJECT TO IRRIGATION EROSION

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### ABSTRACT

*Feeding re-crops with optimal rates and efficient use of irrigation water provides a high yield from lands prone to irrigation erosion. The obtained three-year data revealed that in the initial phases of plant development, irrigation methods and fertilization rates did not have a significant effect on plant growth. In subsequent phases, there is a significant difference between the options. The obtained yield data of repeated crops show that on the 2nd option without the introduction of mineral fertilizers and with irrigation in the usual way, the yield of soybean grain was 10.9 c / ha, and on the option with the introduction of mineral fertilizers at the rate of N50 P75 K50 kg / ha, the yield increase grain was 7.2 c / ha. On the variants with zigzag irrigation, the grain yield was higher by 1.1-1.2 c / ha.*

**KEYWORDS:** Mineral Fertilizers, Methods Of Irrigation, Repeated Crops, Leguminous Plants, Siderate Crops.

## INTRODUCTION

Improving soil fertility susceptible to irrigation erosion, the reduction of erosion processes in the Republic, cultivation of early, high and high-quality crop is an urgent task. Elements in the soil that are subject to irrigation erosion as a result of washing reduce soil fertility [1]. It is important to use short rotational planting schemes (1: 1) in such soils to restore soil fertility, where repeated soy and mung bean crops are cultivated after winter wheat. It is also important to plant siderite crops to increase the yield of cotton and other crops planted next year. [2].

In order to solve these problems and introduce them into production, field experiments were conducted to study the effect of repeated legumes and Side crops after winter wheat on soil fertility. (Table 1).

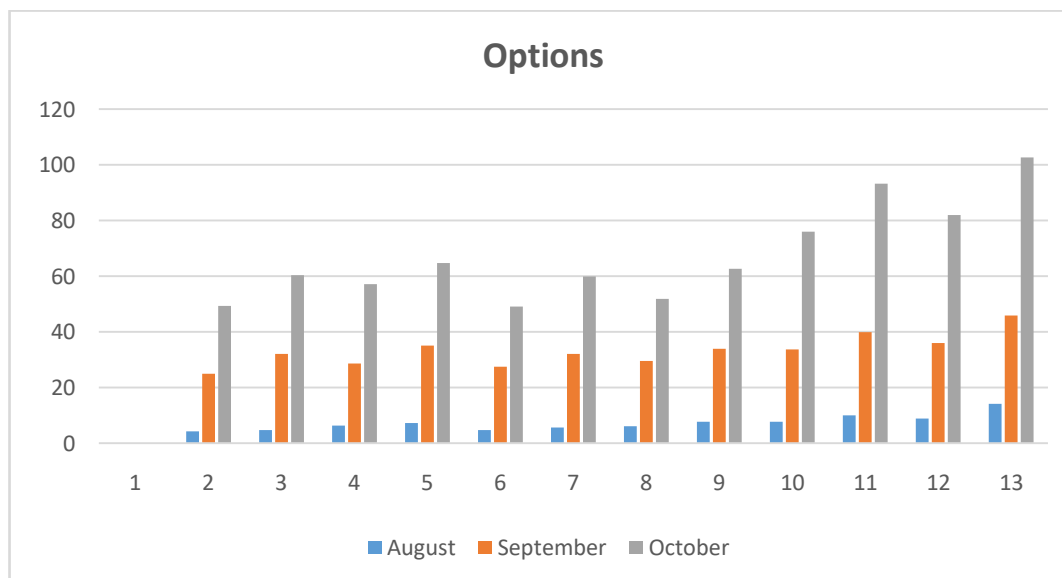
**TABLE 1**

Options	Type of sowing	Annual norm. fertilizer, kg / ha	min.	Watering method
1	Nore-sowing			
2	Soy	-		Simple
3	Soy	N <sub>50</sub> P <sub>75</sub> K <sub>50</sub>		Simple
4	Soy	-		Zigzag
5	Soy	N <sub>50</sub> P <sub>75</sub> K <sub>50</sub>		Zigzag
6	mung bean	-		Simple
7	mung bean	N <sub>50</sub> P <sub>75</sub> K <sub>50</sub>		Simple
8	mung bean	-		Zigzag
9	mung bean	N <sub>50</sub> P <sub>75</sub> K <sub>50</sub>		Zigzag
10	Siderat (chickpeas, oats, perko)	N <sub>100</sub> P <sub>75</sub> K <sub>50</sub>		Simple
11	Siderat (chickpeas, oats, perko)	N <sub>200</sub> P <sub>140</sub> K <sub>100</sub>		Simple
12	Siderat (chickpeas, oats, perko)	N <sub>100</sub> P <sub>75</sub> K <sub>50</sub>		Zigzag
13	Siderat (chickpeas, oats, perko)	N <sub>200</sub> P <sub>140</sub> K <sub>100</sub>		Zigzag

On lands subject to irrigation erosion, irrigation methods and rates of mineral fertilizers applied on repeated crops influenced their growth development positively.

The obtained three-year data revealed that in the initial phases of plant development, irrigation methods and fertilizer rates did not significantly affect plant growth. In subsequent phases, between the options there is a significant difference. On the second soybean culture, the plant height on October 1 on the 2nd variant without fertilizing and with the search method of irrigation was 49.6 cm. On other options, due to the introduction of mineral fertilizers with the norm of nitrogen 50, phosphorus 75 and potassium 75 kg / ha, the plant height was 7.6–11.2 cm higher, and due to the use of the zigzag irrigation method, it was 4.4–7.9 cm higher compared to the control (Figure-1). The greatest height of mash plants (62.9 cm) was observed in the 9th

version. In side crops, the more height (102.8 cm) was on the 13th version, where a high norm of mineral fertilizers was applied and with irrigation by zig-zag method.



The influence of irrigation methods and mineral fertilizers norms on the growth of repeated crops, see (Fig-1)

In the control variant using the usual method of irrigation without mineral fertilizers, the number of beans per plant was 23.4, and in the variants due to the introduction of mineral fertilizers with a nitrogen rate of 50 kg, phosphorus 75 kg and potassium 75 kg / ha, the number of beans was greater 6.5-7.5 pieces, and due to the use of the zigzag irrigation method, it was respectively 2.1-3.1 more. On Mash these indicators respectively amounted to 10.9-11.2; 2.6-2.9 pieces.

All agricultural activities carried out mean crop yields. The obtained harvest data of the second crops show that in the 2nd variant, without applying mineral fertilizers and irrigating in the usual way, the soybean grain yield was 10.9 kg / ha, and in the variant with mineral fertilizers of norm N50 P75 K50 kg / ha, the yield increase grain was 7.2 cwt / ha. In variants with irrigation by zigzag method, the grain yield was higher by 1.1-1.2 cwt / ha.

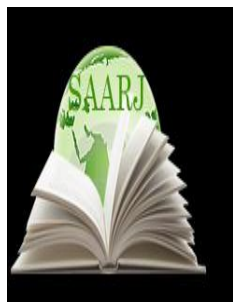
On cultivated mash variants, these indicators were respectively 13.3-15.1 and 16.2-19.0 cwt / ha. In side crops with mineral fertilizers of norm N100 P75 K50 cwt / ha (10 option), the green mass yield was 168.9 cwt / ha, and in the 13th variant with high norms of mineral fertilizers (N200 P140 K100) was obtained high yield (208.6 cwt / ha) of green mass.

From the obtained research results it was revealed that in conditions of soils subject to irrigation erosion, for optimal growth and development of repeated crops, it is advisable to use mineral fertilizers in optimal norms and to irrigate in a zigzag manner.

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## PROBLEMS ASSOCIATED WITH EXPORTS OF SMALL BUSINESS ENTITIES IN THE CONTEXT OF THE PANDEMIC AND THEIR EFFECTIVE SOLUTIONS

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### ABSTRACT

*The identification of the problems that arise in the export of small businesses in the conditions of today's pandemic, the description of their essence is considered in important matters. Recommendations have been developed in this article on the solution of the problems existing in the export of small businesses.*

**KEYWORDS:** *Small Business, Marketing, Logistics, Export, Marketing Problems, Marketing Service, Product, Price, Place, Promotion, Foreign Trade.*

### INTRODUCTION

The continuation of the socio-economic reforms carried out in our country and the activities of small business entities operating in the economic sectors, satisfaction of the needs of manufacturing enterprises and the population with the most necessary types of tokens in the conditions of a pandemic are one of the pressing issues. The role of exports in mitigating the negative effects of the global crisis in the enterprises of economic sectors of Uzbekistan, including in the activities of small businesses, cannot be overemphasized. The study of commodity markets and price conjuncture in the conditions of pandemics reveals that every enterprise that correctly evaluates the conjuncture during and after a pandemic will come out of the global crisis with the least losses in its activities. Because the experience of the countries that occupy a leading position in the world economy proves that in any crisis situation, small business entities will quickly recover their activities. In achieving the goals set in the conditions of the Pandemic, Small Businesses should take into account their strengths and weaknesses in such

decisive areas as production, the level of technology, finance, sales, that is, the potential of its resource comes from the market opportunities.

It is said that the globe of the market will strive to operate beyond its borders of countries and certain regions. This is evidenced by the liberalization of trade, the removal of investment barriers, the emergence of free entrepreneurship, etc. Within the framework of large enterprises, globalisation means the formation of a common approach to the exit from the borders of the domestic market and the assimilation of the world market. All this leads to the conclusion that the successful implementation of the trends in the development of export activities at the level of small business entities requires the creation of inter-functional groups to take it as a management concept, the development of inter-functional coordination and decision-making, the improvement of corporate culture. During 2017-2019, the presidential decrees and decrees of the Republic of Uzbekistan aimed at further stimulating and improving the foreign economic activity of small business entities, improving the regulation of export-import operations, increasing the competitiveness of products of small business entities, increasing the volume of exports and its geography serve as important normative documents. In the address of the president of the Republic of Uzbekistan Shavkat Mirziyoyev to the Supreme Assembly in Yanvar for 2020 year 24, 2020 year and subsequent years as the programming and targeted tasks that need to be implemented in the field of economy "...the most important guarantee of sustainable economic growth is the production of competitive products, the discovery of new international markets for them and the increase in exports, the full use of transit potential. This year, an export – credit agency will be established, which will guarantee exporters and cover part of their expenses-the Export Support Fund, as well as pre – financing exports. In addition, Modern Insurance Services will be established in export, the mechanism of partial state coverage of automobile and air travel expenses will be introduced. It is necessary to improve the control system and infrastructure associated with foreign trade. In particular, due to foreign experience, it is necessary to reform the activities of the customs, sanitary, quarantine, veterinary and other departments that carry out control in customs posts". In the conditions of the global crisis as a result of the corona virus pandemic, the effective continuation of the export activities of small businesses in Uzbekistan and increasing the export potential, saturation of the consumer market is one of the important tasks. The role of foreign economic activity in the organization of the movement of commodity and material resources in the branches of the economy of Uzbekistan and the linkage of relations is incomparable. Because in the organization of the movement of commodity and material resources in the country, the importance of foreign economic activity increases in the cycle from the supply of raw materials to the delivery of finished products to the consumer. In the conditions of the pandemic, trade activities around the world, including in the economy of Uzbekistan, have not stopped. The importance of exports in commercial activities, the production of finished products of manufacturing enterprises to foreign markets and their impact on their economic efficiency. All aspects of the economic activity of modern small scale enterprises in accordance with the principles of Marketing should be planned and implemented taking into account the requirements of the market, the needs of consumers. Even in the event of a pandemic, it will be worthwhile for small businesses in Uzbekistan to plan their own production and sales activities, primarily taking into account market requirements and the need of consumers. It should be said that the great achievements of modern small scale enterprises in the field of production and sales activities, the diversity and quality of their marketability, their

penetration into foreign markets, the creation of production, which is optimal according to the scale of foreign trade operations, all this is the result of the application of marketing.

A number of works are also carried out in our republic on the development and support of export of small business entities. In particular, in 2013, under the National Bank for foreign economic activity, the “fund for the support of exports of small business and private entrepreneurship” was established. As a result of the establishment of this fund, carrying out research in foreign markets on further expansion of export potential of small business entities, studying the current and future conjuncture arising from the requirements and needs, the country is developing opportunities to export its products to small business entities. But in addition to the large-scale opportunities created, there are still a number of problems in the export of small businesses. Especially in the conditions of the Pandemic, Small Business Entities are adversely affected not only by export activities, but also by the overall production and sales activities.

In any case, the development of the activities of small business entities, their support, creating favorable conditions for the export of their products, especially in ensuring economic stability, is one of the pressing issues of today. In the course of our research, we classified the problems associated with the development of small business export as follows. Problems associated with the development of export activities of small businesses in the conditions of Uzbekistan by the authors were divided into four groups:

1. organizational-legal;
2. economic-financial;
3. marketing;
4. logistics.

Organizational and legal problems are connected with single social payment, exemption from all other types of taxes and duties, improvement of legal norms of ensuring the fulfillment of contractual obligations of small businesses, reform of Customs, sanitation, quarantine, veterinary activities that carry out control in customs posts, further improvement of the regulation of foreign trade activities, harmonization of national standards with international trade standards, etc. Economic and financial problems include issues related to ensuring access to loans without obstacles for business entities, expanding the rights of borrowers and creditors in terms of Secured Transactions, improving the exchange rates of credit information, improving the resolution of failure to pay, exporting products through the insurance policy, reducing the export price, etc.

And the problems associated with Marketing are the phrase, like the further expansion of the export potential of small businesses, the conduct of marketing Research in foreign markets on the basis of demand and needs, the study of current and future conjuncture, the implementation of market segmentation to expand the volume of foreign trade and the identification of target markets, the formation of sales channels, The problems of logistics include the development of the transport and logistics sector in the delivery of products of small businesses to foreign markets, the creation of reserves, storage, delivery, improvement of the transport-related infrastructure, the use of transit capacities, the timely delivery of the product in the required assortment, the acceptance of orders and their fulfillment, the placement of export products.

Author's suggestions and recommendations on the solution of problems in the development of export activities of small businesses were developed. Suggestions and recommendations on the solution of problems in the development of export activities of small business entities:

№

### **Direction of problems**

Suggestions and recommendations for solving problems

#### **1. Organizational and legal**

- granting the right to export the products of small businesses without paying a pre-tax, without opening a letter of credit;
- Establishment of customs, sanitary, quarantine and veterinary offices, which carry out control only in special duty posts, working with small business entities;
- Establishment of Free Trade Zones for small business on the territory of the Republic for the development of exports of small business entities;
- Implementation of a quality management system related to international standards related to foreign trade;
- To improve the legal framework for ensuring the fulfillment of contractual obligations related to international trade.

#### **2. Economic finances**

- Establishment of an export credit agency in order to ensure the provision of unhindered loans to small business entities;
- Establishment of small business export support departments in commercial banks;
- Establishment of a special small business export insurance company;
- identify the types of products purchased, find a market for them and establish private trading companies engaged in sales.

#### **3. Marketing**

- the study of foreign market conjuncture, the organization of marketing agencies, associations conducting marketing research, analyzing the conjuncture of supply and demand, prices;
- regular study of price conjuncture in foreign markets, Organization of infrastructure that allows the development of futures, which allows to protect against the consequences of unfavorable changes in prices of foreign markets;
- Organization of cooperative international wholesale trade fairs, creation of trade agreements and negotiations;
- to introduce the products of small businesses to foreign market counterparts and potential consumers, to establish a special advertising agency that conducts advertising and PR work.

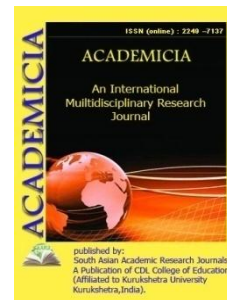
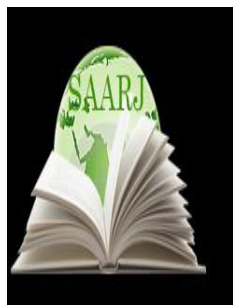
#### **4. Logistics**

- To provide selected markets with national products together with foreign logistics partners;

- Customer service infrastructure in the formation of dealer and distribution networks: placement of Central and peripheral networks, means of delivery, development of service centers;
- Establishment of logistics centers for small businesses in the industrialized regions of the Republic. There are really serious problems in the organization of direct exports of small business entities. It is important to find a solution to these problems from a scientific and practical point of view, to improve organizational and economic processes. In particular, it is important to study the conjuncture of foreign markets of small business entities, establish Modern Insurance Services in the export, introduce partially state-owned coverage of automobile and air travel expenses.

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## AGROPHYSICAL AND AGROCHEMICAL PROPERTIES OF INFLUENCE OF RECYCLED SOYA AND SOIL OF THE FIELD

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### ABSTRACT

*In this article, the volume mass and porosity of the soil of the field of experience of care of the soybean plant, which is re-planted in the conditions of typical irrigation soils of the Tashkent region, have been studied and the irrigation procedure has been proven in the experiment that it is optimal to moisten the approximate layer of soil 0-5.*

**KEYWORDS:** Chdns, Typical Burlap Soil, Accounting Layer, Shade, Bulk Mass, Porosity.

### INTRODUCTION

Today there is a growing demand for soybeans in order to meet the dietary needs of the whole world. It is important that soy bean is rich in protein and that it contains all of the amino acids

that are beneficial to human. According to the Bureau of Food Agriculture the average crop capacity of soy beans is 2.7 tons per hectare? And in 2020 soybean production will be 1.62 mln tons World of wide, soybean production is expected to grow by 2.2 % to reach 371.3 mln tons by 2030. Due to the positive biological characteristics of the shade in the republic, there is a lack of irrigation water and their deficiency in the development and improvement of agro technology for recultivation of soy beans as a secondary crop.

The Decree of the President of the Republic of Uzbekistan dated March 14, 2017, PK 2832 On measures to increase sowing and soy bean cultivation in the country for the period of 2017-2021 is intended for 92.266 ha of the main crop and 40.557 ha of secondary crops.

Soybean crop occupies 4 hectares in terms of sown area after wheat, rice and maize.

With a total grain yield of 220,64 million tons, Brazil, the United States of America and Argentina are the leading producers of soy beans, the buyer countries are our neighbor, China, Korea and their countries.

In the country in 2018, the main crop was sown on a total of 1.100.000 hectares and as a secondary crop at 19.150 hectares.

Agrarian science is one of the most urgent issues in the field of agricultural saturation of the country's population with food products, in vegetable oil the main tenancy of soil fertility a long with affordable animal feed, and the efficient use of water limits. Decree of the Cabinet of Ministers of the Republic of Uzbekistan dated February 10, 2018 "On measures to further increase soybean production in the republic". At the same time, 114 areas were planted in the main areas of the country and 120 in the secondary areas. In most cases, low-yield, heavy and irrigated areas of water beans supply were obtained from low soybean yields, with 1.3103 tons of soybeans contracted with 3510 farms, and yields 16 centers.

A team of scientists and specialists was sent to the country of Krasnodar in Russia and to develop agro technology for soybean cultivation and to provide seeds with the appropriate climatic conditions of the republic to ensure implementation of this decision.

In the current year in Uzbekistan 2929.6 thousand hectares of the total irrigated area of 3.265.2 thousand hectares are cultivated area of 9.09100 hectares of the cultivated area 1107100 hectares of cultivated area of the country. One of the main problems in the re-cultivation of water is the limited availability of water. Therefore, it is necessary to search for ways to make more efficient use of existing water resources for crop irrigation and to develop scientifically sound water – saving agro technology. In recent years, there is increasing attention to the protection and effective use of existing land and water resources in the country, where water shortages have been increasing day by day. Cultivation of legumes and oilseeds as a second crop is one of the most pressing issues of the day.

### **The aim of researching**

The development of a system of economical irrigation, which ensures reproduction of soybean crop, the development and harvesting of repeated sowing on winter wheat fields under different soil climatic conditions. The researching works Research Institute of Agrotechnology of Cotton Seed breeding in the "Oqqovoq" experimental areas in the region of Kibray.

## RESULTS

The soil mass and porosity: In the field experiment, different modes of shade irrigation have little impact on soil size, porosity, formation of yield elements and increase in productivity. The experimental field was plowed, leveled, sown to a depth of 30 cm after the winter wheat was harvested, after planting soybean varieties, at the beginning of the period the soil samples were taken from the field at 5 points by means of canopy and the soil size and porosity were determined.

At the end of the action period, soil mass, specific mass and porosity were determined from 0-100 cm layer for each 10 cm layer of all variants. The results are presented in table 1.



**TABLE 1 THE SOIL MASS AND POROSITY, G/CM<sup>3</sup>% (IN TYPICAL ICE-DAY SOIL IRRIGATED IN TASHKENT REGION)**

Soil layer, cm	At the beginning of the action period		Irrigation procedures at the end of the period.			
			Limited field net capacity) hwith 65-65-60%		Limited field net capacity) hwith 75-75-65%	
	Soil mass	Porosity	Soil mass	Porosity	Soil mass	Porosity
0-10	1,26	53,3	1,38	48,8	1,39	48,5
10-20	1,27	52,9	1,39	48,5	1,40	48,1
20-30	1,27	52,9	1,39	48,5	1,39	48,5
30-40	1,28	52,5	1,40	48,1	1,40	48,1
40-50	1,30	51,8	1,38	49,2	1,39	48,5
50-60	1,31	51,4	1,39	48,5	1,41	47,7
60-70	1,30	51,8	1,38	48,8	1,40	48,1
70-80	1,32	51,1	1,39	48,5	1,41	47,7
80-90	1,31	51,4	1,40	48,1	1,41	47,7
90-100	1,33	50,7	1,41	47,7	1,42	47,4
<b>Medium</b>						
0-30	1,27	52,7	1,38	48,8	1,40	48,5
0-50	1,29	52,9	1,39	48,5	1,41	47,7
0-70	1,30	51,8	1,39	48,5	1,41	47,7
0-100	1,32	51,1	1,40	48,1	1,42	47,4

It can be seen from the data that at the beginning of the shadow period, the soil weight and porosity at the beginning of the shade are 1.30 – 1.32 g/cm<sup>3</sup> 52.7 in 0-30 cm drive layer and 1.29-1.32 in the subcutaneous layer of 0-50 cm.h. and porosity were 51.8-51.1 respectively.

By the end of the period of irrigation the soil moisture and porosity in the established variants of 65-65 60% of the soil are 0-30 cm in the drive and 0-50 cm in the substrate 1.38-1.39 g/cm 48.5-48.8 % lower 0-70 cm, 0-100 cm 1.39 – 1.40 g/cm<sup>3</sup>, and porosity was 48.1 – 48.5 respectively.

Irrigation mode 75-75-65 % variants with soil size and slurry capacity of 0-30 cm and 0-50cm in the subsoil layer 1.40 – 1.41 g/cm<sup>3</sup>, 47.7-48.5 % and 0-70 cm, 0-100 cm 1.41 – 1.42 g/cm<sup>3</sup>, and porosity was 47.4 -47.7 respectively. Experiments showed that irrigation procedures had a significant impact on soil volume. Irrigation was irrigated 3 times at 65-65-60 %.

In our researching, the soil porosity decreased as the soil mass increased. In order to determine the dynamics of nutrient content in soil at the beginning, during and after the growing season, soil samples were collected and analyzed under laboratory conditions.

**TABLE 2 AGROCHEMICAL PROPERTIES OF THE SOIL IN EXPERIMENTAL LAND.**

At the beginning during period							
The sample of point	Soil layer, cm	Humus, %	Total amount, %		Active form, mg/kg		
			Nitrogen	Phosphorus	NO <sub>3</sub>	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
1	0-30	1,073	0,162	0,290	9,82	13,76	168
	30-50	0,828	0,072	0,306	5,6	8,0	146
2	0-30	1,189	0,182	0,318	10,2	19,2	214
	30-50	0,775	0,112	0,320	6,7	10,56	185
3	0-30	1,210	0,176	0,278	14,4	18,24	161
	30-50	0,945	0,108	0,314	7,8	15,36	144
4	0-30	1,211	0,090	0,340	12,9	18,24	235
	30-50	0,818	0,072	0,330	8,07	10,56	264
5	0-30	1,200	0,092	0,336	10,3	11,20	226
	30-50	0,871	0,073	0,314	7,3	8,32	192
Medium	0-30	1,176	0,140	0,312	11,5	19,77	200,8
	30-50	0,847	0,087	0,316	7,09	10,56	186,2
At the ending of the							
1	0-30	1,36	0,132	0,310	9,85	12,16	168
	30-50	1,24	0,112	0,306		11,2	216
2	0-30	1,33	0,140	0,324	6,99	14,4	156
	30-50	1,17	0,140	0,300		5,76	122
3	0-30	1,43	0,118	0,334	5,40	8,96	120
	30-50	1,28	0,101	0,290		6,4	122
4	0-30	1,32	0,157	0,330	16,4	832	144
	30-50	1,26	0,118	0,336		12,16	156
5	0-30	1,39	0,129	0,310	13,2	8,0	144
	30-50	1,23	0,116	0,302		6,43	161

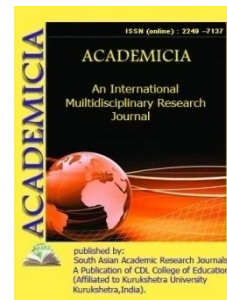
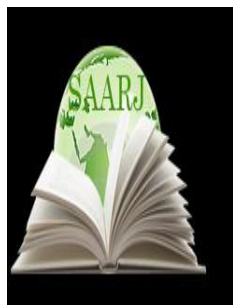
1. In summary, it can be concluded that the soil of the experimental field is considered to be one of the poorest soil nutrient reserves. Accordingly, it was found that the total nitrogen content in the 0-30 cm layer of soil was 0.042 % and in the 50 cm layer, respectively, 0.40% layers.
2. Soil mass and porosity 65-65-60 % in the order of soil relative to 0-50 cm subcutaneous soil 1.38 – 1.39 g/cm<sup>3</sup>, 48.5-48.8 and bottom 0-70 cm, 0-100 cm 1.39-1.40 g/cm. The crustaceans were also 48.1-48.5.
3. Irrigation procedure 75-75-65 % volume weight and sloping soil with 0-30 cm drive and 0-50 cm subsoil layer 1.40-4.41 g.cm, 47.7-48.5 and bottom 0-70 cm, 0-100 cm 1.41-1.42 g.cm and 47.4-47.7 % respectively.

### CONCLUSION

It was proved that in the repeated cultivation of soybeans in conditions of typical burlap soils of Tashkent region it is sufficient to moisten 65-65-60% of the water-restricted field moisture capacity, as well as 0-50 CM of the soil. In the experiment, it was found that ChDNS have a positive effect on the volumetric mass, porosity of the soil compared to irrigation in the order of 75-75-65%.

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## WAYS OF FORMATION OF PERSONAL CREATIVITY

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### ABSTRACT

*This article presents the opinions and opinions of great scientists on the formation of a person's creativity, information about creative thinking in the course of classes. The rapid change in the environment makes it difficult for young people to set basic life goals and objectives. At the same time, the large number of different forms of information and technical means complicates the formation of a harmoniously developed generation. The human brain uses templates and stereotypes to "make" its work easier. Stereotypes are hitherto known and accepted ideas. Thinking about them doesn't give us any new ideas. The formation of stereotypes is also dominated by social opinion, which is a priority in society, as well as the forms and appearances presented in the media.*

**KEYWORDS:** Humanity, Creativity, Person, Children, Lesson, Thought, Idea, Talent

### INTRODUCTION

One of the issues of great interest to mankind is the harmonious formation of the younger generation. Because the place of any country in the world community, what kind of state, how to build a society, first of all, depends on what kind of people young people grow up to be. The rapid change in the environment makes it difficult for young people to set basic life goals and

objectives. At the same time, the large number of different forms of information and technical means complicates the formation of a harmoniously developed generation.

To solve this problem, it is important to cultivate creative, independent-minded people, to develop their creativity. One of the most favorable age periods for the development of creativity, V.N. According to Druji, this is a small school age. At this age, in primary education, students develop intellectual abilities, imagination, thinking, attention, and the ability to be creative.

Much research has also been devoted to the study of creativity, which has yielded theoretically and practically effective results. But so far there is no holistic, perfectly developed theory of creativity. As a result, there is no single concept for understanding creativity and no diagnostic method has been developed to study this ability and is accepted by all scientists.

The word "creativity" was first used in 1922 by the American scientist D. Simpson. The term refers to a person's ability to break stereotypes, stereotypes, and stereotypes. Creativity (Latin: creatio - creation, creation) is a person's ability to come up with unusual ideas, to think, to find unique, original solutions to problems, to abandon traditional forms of thinking.

Research that compares creativity with personality and intellectual traits is of great importance. Comparison Studies with Intellectual Properties Dj. Made by Gilford. According to S. Mednik, in the creative process, both divergent and convergent types of thinking function interrelated.

In Sternberg's and Lubart's theories of creativity, the basic concept is "problem solving." At the heart of the creative process is sensitivity to the problem. They do not equate intellectual ability and creativity. But at the same time, in their opinion, intellectual abilities, knowledge, motives and personality traits are the impetus for creative activity.

Apparently, there is no consensus among scientists. This makes it difficult to understand creativity. Therefore, when it comes to creativity, it is important to be clear about whether creativity is a skill or a quality of a person.

It is well known that the word "creativity" refers mainly to inanimate objects and phenomena, and it is possible to observe cases when the results of their research are transferred to the field of interpersonal relationships. According to the well-known scientist-methodologist BF Lomov, there is no basis for such transfers. In this sense, it is appropriate to think differently about social creativity.

An analysis of the above scientific literature shows that there are the following different views on the concept of creativity, which contradict each other. These are:

1. Creativity is a set of qualities that a person has throughout his life.
2. Creativity is a way of performing certain tasks and tasks assigned to a person.
3. Creativity is a product of intellect.
4. Creativity is a gift given to man by God, discoveries.
5. Creativity is a creative activity.
6. Creativity is the spiritual, moral and social adaptation of creative people.
7. Creativity is a category that is inextricably linked with culture.

Creativity is a personal quality of a person that is manifested in the process of formation as a person on the basis of culture.

Creativity is a personal trait that is associated with self-improvement and self-improvement.

So how do you teach students to think creatively? What changes need to be made in thinking to create innovation?

Imagination is more important than knowledge (is it?). In order to develop the qualities of creativity in a person, it is first necessary to know the content of this concept. Creativity is derived from the English word "create", which means to create. Creativity is a person's creative ability to innovate and solve problems. At its core lies originality, practicality, unusualness and freedom. Creative thinking also means comprehensive thinking on a particular issue, approaching a point from different angles. the pursuit of verses is manifested in the reforming and alteration of established stereotypes, in making unexpected and unusual decisions in the process of solving vital problems. That is, creativity cannot be achieved by repeating the given knowledge, the main condition in the process of creative thinking is the emergence of a new idea, a new idea. For example, if you memorize English words and "drink" grammar rules, but don't write an essay, it's all useless. Therefore, imagination plays an important role in the process of creative thinking. This is exactly what Albert Einstein meant when he said, "Imagination is more important than knowledge." Often, unusual ideas and solutions come to mind. To do this, first of all, it is necessary to eliminate the monotony, the habit in the process of thinking. We give up patterns. The human brain uses templates and stereotypes to "make" its work easier. Stereotypes are hitherto known and accepted ideas. Thinking about them doesn't give us any new ideas. The formation of stereotypes is also dominated by social opinion, which is a priority in society, as well as the forms and appearances presented in the media. Everyone agrees that people should not be isolated from the public. Also, "swimming in the current" seems easier than thinking independently. When thinking through stereotypes, when the human mind is "questioned" on a particular topic, the usual information and feedback arises. For example, when we say "New Year", we are imagining a rich table, fizzy drinks that do not fall from advertising, a Christmas tree, etc., and seeing an old man with glasses in his hand in the image of his grandfather. Creative-minded people create images that are different from the usual ones, and they discover new things that no one else has noticed. Surprisingly, the educational process also teaches children to think the same way. It is obvious that famous inventors and inventors are not accustomed to the uniformity of the educational process in school, they do not fit into the stereotypes.

As children learn to write along the lines, work through examples in assignments, learn how to understand a work in literature classes, and have teachers evaluate good performers, children begin to think within patterns. As a result, many young people are asking if there is a model for assignments. It's the result of learning to work with existing models. To overcome this situation, it is necessary to pay attention to the development of creative qualities in the learning process. For example, ask students, "If you were given \$ 86,400 a day, what would you spend it on?" Unusual questions such as This question develops the student's ingenuity, resourcefulness, creativity, ability to look at the subject from different points of view, to reveal hidden aspects. The reason is that 86,400 represents the number of seconds in a day. The question tells the student the value of every second and tells them not to waste it.

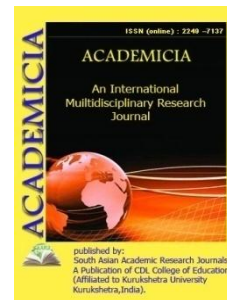
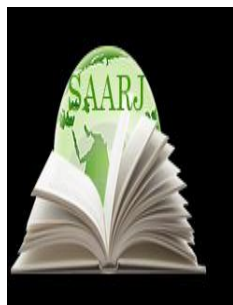
"Creativity is an involuntary process," says Thomas Edison. But every day, many professionals find it necessary to find unusual solutions to problems. Can they volunteer for this involuntary process? There is no "magic wand" in nature to create new ideas, but there are many ways to help any professional think creatively. To do this, it is necessary to spend time on creative thinking, to realize the creative potential. George Bernard Shaw jokes, "Most people think two or three times a year. The reason I'm famous all over the world is because I think once or twice a week. " So it's important not to ignore new ideas, to give them a chance to think. Set boundaries. When you face a problem, set boundaries for creativity. Ask yourself, "What is the simplest solution?" ask Then imagine the "incredible solution to the problem." There is a creative space between a simple and amazing solution. The new idea is no longer abstract, it has its limits. This relieves the psychological pressure in the creative process. The "six hats" method. In the "Six-Color Hat Method" proposed by Edward de Bono, a theme is chosen. Hats are worn in turn: white - all facts are carefully, without any emotion; black - defects are identified; yellow - the current situation is analyzed; green - a few more ideas will be added; red - indicates an emotional response; blue - the case is over.

Summarizing the above, it is desirable that every educator in general secondary education should work in the following main areas, which encourage the teacher to search and create.

So, we can see that the harmonious development of the younger generation, the development of their creativity to strengthen the independence of Uzbekistan in the future is a guarantee of the effectiveness of many ongoing reforms.

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## EFFECTS OF HALAXYPHOP-R-METHYL AND INDOXACARB PESTICIDES ON THE STRUCTURE OF THE INTERNAL ORGANS OF RATS

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### ABSTRACT

*The article provides information on changes in the structure of the internal organs of laboratory white rats (heart, liver, lungs, kidneys, spleen, brain) on certain days of application of Halaxyphop-R-methyl and Indoxacarb pesticides, respectively, significant changes were observed in the internal organs of the animal, especially in the spleen, liver and lungs. According to this, significant changes were observed in the internal organs of the animal, especially in the spleen, liver, and lungs.*

**KEYWORDS:** *Halaxyphop -R-Methyl, Indoxacarb, Decaptation, Internal Organs Of Animals (Heart, Liver, Lungs, Kidneys, Spleen, Brain).*

### INTRODUCTION

Today, the provision of ecologically clean food, fruits and melons to the population of the world throughout the year is one of the most pressing issuefacing the agricultural sector. Throughout the year new pesticides are widely used to protect crops in greenhouses, intensive orchards, private lands from various pests and diseases. Such artificial pyrethroids are widely used in agriculture of many countries, including Uzbekistan. This group of substances differs from other types of pesticides in that they are highly effective even when used in low doses. However, in

addition to increasing productivity and protecting plants from pests, pesticides have been reported in the literature to enter the environment, water, air, soil, and living organisms, to be stored in certain amounts, and to cause serious harm to them. [1]

Pesticides are rapidly absorbed by plants, soil, water and air in the soil. For example, the rate of migration of organochlorine pesticides from soil to plant is up to 30%, up to 10-15% for water, and up to 28% for air. [2]

According to the information of the World Health Organization, recent years more than 500 000 cases of acute pesticide poisoning have been reported worldwide each year. It has been noted that 90% of these poisonings are from pesticides stored in food. According to the Ministry of Health of the Republic of Uzbekistan, an average of 30 to 100 cases of acute poisoning occur in the country each year. [1]

Data on the use of pesticides and monitoring of their effects indicate that invertebrates, fish, birds, mammals, and microorganisms are most susceptible to pesticide poisoning in animals. In Germany and other European countries, the use of pesticides in agriculture has reduced the number of wild animals in the wild, and reptiles have become extinct during the day. The number of birds of prey has sharply decreased. [2]

Most pesticides are highly stable and non-degradable substances under natural conditions, and so far no species of them that are harmless to living organisms have been identified. Among the artificial pyrethroids currently used in agriculture, the less toxic species accumulate in the internal organs of living organisms and cause serious damage to their morphological, physiological and biochemical processes. [1]

Therefore, a number of requirements, scientifically based recommendations are set for the drugs produced, and they ensure the safe and effective use of pesticides. Each pesticide is approved by the State Chemical Commission and an annual "List of Pesticides and Agrochemicals Permitted for Use in Agriculture" is compiled. This list includes the most effective, but less toxic representatives for humans and animals. Among the currently used agents are indoxacarb (insecticide-acaricide) and halaxyphop-R-methyl (herbicide), which are widely used in agriculture. [3]

The aim of this study was to study the level of toxicity of artificial pyrethroids, insecticide-acaricides Indoxacarb and herbicides Halaxyphop-r-methyl, which are currently widely used. The experiments were performed on laboratory white rats, and as a result of the experiments, a number of morpho-physiological changes were observed in the internal organs of the rat.

In the experiment, male, non-male, white laboratory rats weighing  $200 \pm 2.0$  g body weight were used. All examinations were performed on healthy, sexually matured rats that had passed the quarantine period of at least 10–14 days. The experiments were carried out according to the following scheme: 5 rats were obtained in each group, group 1 was poisoned with control group, group 2 with Indoxacarb, group 3 with halaxyphop-R-methyl. The drugs studied were administered through a special probe into the rats' stomachs LD50 was administered in a dose. All of the experimental animals were kept in the same usual feeding regimen, with unrestricted access to water and food. Morpho-physiological changes in the internal organs of experimental animals were observed on days 5, 10, 20, 30, slaughtered (decapitation).

During the experiment, the first day under laboratory conditions was observed every hour as an indicator of the general condition of the animals of the research and control groups, the functional status of the possible tremors and deaths. Over the next few days, the general condition, activity, behavior, respiratory rate and depth, changes in body weight, and other parameters of the animals in all groups were monitored daily in a laboratory setting. At the studied doses of indoxacarb and Halaxyphop-R-methyl drugs, no toxic effects were observed in the above-mentioned indicators of animals. No animal deaths were reported during the entire experiment.

The results of the experimental effect of the tested drugs on the structure of the internal organs of rats are given in the following tables.

**TABLE. 1 THE EFFECT OF INDOXACARB ON THE STRUCTURE OF THE INTERNAL ORGANS OF RATS**

	Animal weight	M a s s o f o r g a n s ( g )					
		H e a r t	L i v e r	L u n g	K i d n e y	S p l e e n	B r a i n
	C o n t r o l						
	2 2 4	1 , 0 7	8 , 4 3	1 , 9 2	0 , 8 7	1 , 2 9	0 , 2 8
	I n d o x a c a r b 5						
	1 8 4	0 , 7 9 8	7 , 3 8	1 , 3 9 6	0 , 6 6 3	2 , 3 9	0 , 2 1 3
	I n d o x a c a r b 1 0						
	1 9 0	0 , 8 7 7	8 , 6 7	2 , 4 5	0 , 7 4	1 , 4 4	0 , 2 5 0
	I n d o x a c a r b 2 0						
	1 8 9	0 , 8 6	8 , 4 7	1 , 3 9	0 , 6 6	1 , 3 4	0 , 2 4 0
	I n d o x a c a r b 3 0						
	1 7 9	0 , 8 0	5 , 1 2	1 , 1 9	0 , 5 7	1 , 0 5	0 , 2 5 4
	I n d o x a c a r b 5 0						
	2 4 9	1 , 0 5	1 0 , 4	2 , 1 5	2 , 0 5	1 , 2 5	0 , 3 3

The following changes were observed in the organs of slaughtered animals on days 5, 10, 20, 30, and 50 when a 15% solution of indoxacarb was administered orally once at a dose of ld50 in comparison with control organs: spots on the surface of lung tissue, partial enlargement of the liver and spleen; then a small dehydration was observed. Many changes were mainly seen in the liver, lungs, and kidneys on days 30 and 50 of the experiment. On day 30 of the experiment, a decrease in the mass of almost all organs was observed. However, by day 50, organ enlargement and weight gain were observed. Heart, spleen, and brain weight were close to the control reading, while liver, lung, and kidney weights were increased. At the same time, the weight of the liver increased by 0.23%, lung weight by 0.12% and kidney weight by 0.36% compared to the control, ie the effect of the pesticide was mainly stronger on these organs. The rest of the organs have been brought under control to this day.

The following changes were observed when Halaxyphop-R-methyl 10.4% solution was administered orally once at a dose of 62.3 mg / kg.

**TABLE. 2 EFFECT OF HALAXYPHOP-R-METHYL ON THE STRUCTURE OF THE INTERNAL ORGANS OF RATS**

	Animal weight	M a s s o f o r g a n s ( g )					
		H e a r t	L i v e r	L u n g	K i d n e y	S p l e e n	B r a i n
	C o n t r o l						
	2 2 4	1 , 0 7	8 , 4 3	1 , 9 2	0 , 8 7	1 , 2 9	0 , 2 8
H a l a x y p h o p - R - m e t h y l 5 - d a y							
	1 9 3	0 , 8 1	8 , 8 7	1 , 4 7	0 , 5 7	1 , 0 4	0 , 2 5 5
H a l a x y p h o p - R - m e t h y l 1 0 - d a y							
	1 9 2	0 , 8 5	1 0 , 1 6	1 , 8 8	0 . 6 8	1 , 0 4	0 , 2 5 3
H a l a x y p h o p - R - m e t h y l 2 0 - d a y							
	1 9 8	0 , 8 7	9 , 6	1 , 6 1	0 , 6 3	1 , 3 8	0 , 2 8
H a l a x y p h o p - R - m e t h y l 3 0 - d a y							
	1 9 3	0 , 9 4	5 , 9	1 , 8	0 , 6 3	0 , 9 2	0 , 2 5 5
H a l a x y p h o p - R - m e t h y l 5 0 - d a y							
	2 7 4	1 , 1 5	9 , 2	1 , 9 5	1 , 8	1 , 1 5	0 , 3 6

The following changes were observed in the organs of slaughtered animals on days 5, 10, 20, 30, and 50 when met with haloxyphop-R-methyl in comparison with the organs of control animals: spots on the surface of lung tissue and enlargement of the liver. in these experiments, the changes were mainly observed on the 30th and 50th days of the experiment. on day 30 of the experiment, a decrease in the mass of almost all organs was observed. The greatest weight loss was in the liver by 30%, in the kidneys by 27.6%, and in the spleen by 28.7%. however, by day 50, organ enlargement and weight gain were observed. When the weight of the heart, liver, lungs, spleen, and brain was close to the control value, a significant increase in renal weight was observed, the effect of the pesticide was mainly stronger on the kidneys.

It should be noted that the strong effects of the affected pesticides have been reported in some scientific literature, mainly in the liver, lung and kidney tissues. this is because the liver is highly sensitive to toxic effects due to its central role in the metabolism and portal localization of xenobiotics [6]. therefore, the process of neutralization of chemicals exposed to organisms takes place primarily in the tissues of the organs listed above.

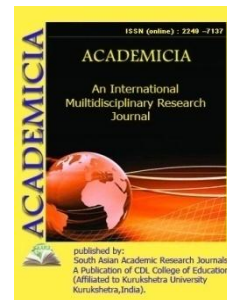
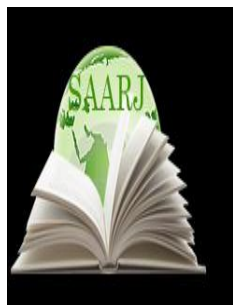
From the experimental results obtained, it can be concluded that modern artificial pyrethroids are also biologically active compounds and pose a serious threat to all living things. At the same time, it was observed that the affected substances have a strong effect on organs such as the liver, lungs, kidneys, disrupting their activity. Based on the increasing changes in the liver, it can be assumed that the development of liver cirrhosis has begun. In terms of exposure, it was observed that indoxacarb had a stronger effect than haloxyphop-r-methyl from the pesticides studied. Also, one of the main problems now is the occurrence of poisoning among humans and animals from the use of artificial pyrethroids and its treatment.

It is necessary to show that the applied antidote, the development of effective therapeutic agents and their application in practice is not properly regulated.

Pesticides used in agriculture have high biological activity and cause significant changes in the organs of animals and humans, which are not the direct object of these compounds. The metabolism of many xenobiotics takes place in liver cells and therefore it serves as the primary target for toxic drugs and their reactive radicals. [4]

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## **CARRYING OUT OF SANITARY AND EDUCATIONAL WORK, INDIVIDUAL AND PROFESSIONAL HYGIENE OF THE ORAL CAVITY ALONG WITH APPLICATION "R.O.C.S. MEDICAL MINERALS »**

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### **ABSTRACT**

*For the prevention and treatment of lesions of hard tooth tissues, a method of deep fluorination with tifenfluorides was proposed, which for a long time emit fluorine in high concentration, contributing to reliable remineralization. Currently, many fundamental aspects of prevention in the process of orthodontic treatment have not yet been fully resolved. There is no data on the use of the deep fluorination method in orthodontics. The issues of assessing the resistance of tooth enamel and the effectiveness of remineralizing agents with the help of mouthguards in the process of orthodontic treatment are not adequately covered. In this regard, the urgent task is the further development of preventive measures in the process of orthodontic treatment.*

**KEYWORDS:** *Hard Tissues Of Teeth, Stabilize The Development Of Initial Caries, A Set Of Diagnostic And Preventive Measures, R.O.C.S. Medical minerals.*

### **INTRODUCTION**

Conducting sanitary-educational work, individual and professional oral hygiene along with the use of "R.O.C.S. Medical Minerals "and kappa made it possible to increase the resistance of hard tooth tissues and stabilize the development of initial caries after 18 months of orthodontic treatment, as evidenced by a clinical assessment using the method of light-induced fluorescence.

The developed and tested complex of preventive measures, including the local use of various therapeutic and prophylactic preparations and mouth guards, allows to improve the hygienic condition of the oral cavity, stabilizes the condition of periodontal tissues and provides a decrease in the growth rate of dental caries, which makes it possible to prevent the development of complicated forms of major dental diseases and helps to increase the quality of orthodontic care for children. The use of exogenous drug prevention of dental caries using the drug "ROCS Medical Minerals "and kapp. For patients with revealed signs of caries, it is necessary to perform dental treatment before fixing braces twice with an interval of 2 weeks and during orthodontic

treatment 2 times with an interval of 7 days every 3 months. Children without caries should be prevented from developing only during orthodontic treatment by double coating the teeth with the drug after 2 weeks every 6 months.

To increase the acid resistance of enamel in prophylactic subgroups of the 2nd group, a course of treatment and prophylactic measures was carried out using R.O.C.S. Medical Minerals "and kapp. So, after using the drug "R.O.C.S. Medical Minerals "there was the greatest tendency for the TER test to decrease in relation to the initial inspection - by 27.8%. This was due to an increase in the acid resistance of the enamel before fixing the removable and non-removable orthodontic appliances, which confirms the importance of this procedure.

It has been established that the processes of enamel demineralization in children with removable orthodontic appliances are directly dependent on the applied therapeutic and prophylactic agents. The results of the study convincingly showed the relationship of enamel remineralization processes from the used therapeutic agents.

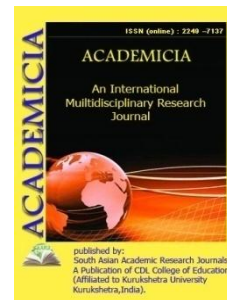
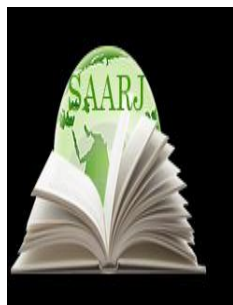
So in subgroup B1, intact enamel was observed 20% more often than in group A1, and the development of medium and deep caries was not recorded, while in group A1 the development of a white spot was noted in 30.8%, surface caries 1 and 2 at 23, 1 and 11.5%, respectively, average and deep caries in 3.8 and 7.7%, respectively.

It has been established that the processes of enamel demineralization around braces in children are directly dependent on the therapeutic and prophylactic agents used. The results of the study convincingly

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## AGRICULTURAL DEVELOPMENT IS THE BEST KEY FACTOR FOR FOOD SECURITY

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### ABSTRACT

*In this article, the formation of market relations in agriculture which is the largest sector of the economy of the republic, the negative impact of the coronavirus pandemic on the world economy, the stagnation of industrial enterprises, food shortages and its security in the world, employment and income in the global crisis and pandemic, the most promising area, the study of best practices and achievements in agriculture of developed countries, innovative views on the strategic directions of the policy of deepening economic reforms in agriculture of the republic are discussed.*

**KEYWORDS:** *Agriculture - As the Largest Sector Of The Economy, The Negative Impact Of The Pandemic, The Global Crisis, Best Practices In Agricultural Development*

### INTRODUCTION

The largest sector of the economy - the formation of market relations in agriculture and the effective functioning of all its sectors in the transition period, first of all, the gradual implementation of economic reforms, taking into account the specifics of the sector, creating conditions for equal ownership of various forms of ownership and management It depends on factors such as limiting the interference of local authorities and government agencies, creating a

competitive environment based on the development of market infrastructure and ensuring sustainable economic growth of private and small businesses. The negative impact of the coronavirus pandemic on the global economy is causing a variety of problems. Experts from the World Bank, the International Monetary Fund and other international organizations predict that by 2020 the economies of many developed and developing countries will slow down. This, in turn, indicates the escalation of problems such as the global unemployment rate and the growing number of people in need of social protection. Besides, the shutdown of manufacturing enterprises will exacerbate the problems of food shortages and their security in the world. The study of best practices and achievements in agriculture of developed countries is of great importance in the process of deepening economic reforms in agriculture of the republic. Because, firstly, the existing conditions created in the developed countries in the period from the activity of farms, the choice of the type of product, from sowing to harvesting; second, mutual economic relations in the system of production, receipt, preparation, processing and sale of goods; thirdly, the role of the state in both of these processes, ie marketing research aimed at producing competitive quality products for domestic and foreign markets, the export of products based on quotas, research of state economic support mechanisms in tax, insurance and credit issues is one of the urgent tasks.

**Main part:** Addressing and preparing for these issues, which may arise in the future and are of social significance, is one of the priorities of many countries today. For example, Reuters quoted a report from the U.S. Department of Agriculture (USDA) as saying that China imported 340,000 tons of wheat (the largest deal in two years), 756,000 tons of oats (the biggest deal in seven years) and 110 tons. bought shade. Under the agreement reached in February this year, China will receive an additional 76.7 billion US dollars by the end of 2020 and 123.3 billion US dollars by 2021. intends to purchase agricultural products for \$ 1 billion. Also, according to the Food and Agriculture Organization of the United Nations (FAO), in March this year, food prices on world markets fell by 4.3% compared to February.

In the current global crisis and pandemic, agriculture is the most promising sector in our country in terms of employment and income, maintaining economic stability. As noted by the President of the Republic of Uzbekistan Sh.M.Mirziyoev, on April 14, 2020, at a video conference on the further development of the agricultural sector, increasing food production, these aspects were specially recognized. At the meeting, the issue of doubling the volume of production in the fruit and vegetable and livestock sectors was raised. It was noted that 55 districts, 86 clusters and 125 cooperatives specializing in fruit and vegetable growing should be leaders in achieving this goal. To systematically and effectively implement these tasks, the following comprehensive measures have been identified: "

- The development of fruit and vegetable growing requires the efficient use of 136,000 hectares of new orchards and vineyards of 63,000 hectares and 600,000 hectares of secondary crops. It is also planned to develop 124,000 hectares of decommissioned land and 155,000 hectares of fallow land through irrigation;
- The Ministry of Internal Affairs was instructed to ensure the free movement of agricultural and industrial vehicles in compliance with quarantine regulations;
- 300 billion to the funds of the Agency for Development of Horticulture and Greenhouse Development and the Agency for Development of Viticulture and Enology. soums are allocated;

- In order to avoid interruptions in the supply of seeds, it is necessary to organize their import in a centralized manner. Every year, about 300,000 tons of potatoes, as well as 10-15,000 tons of seed potatoes are imported to our country. Therefore, Kurgantepa, Bakhmal, Zaamin, Shahrissabz, Kitab, Yangikurgan, Bulungur, Bostanlyk districts will be specialized in growing seed potatoes.

Another problem in the system is the supply of fertilizer. Uzkiyosanoat has been tasked to set up fertilizer shops in 55 districts specializing in fruit and vegetable growing within two weeks. Restrictions on fertilizer imports have been lifted until the end of this year.

In addition, during the quarantine period, it is planned to create conditions for the free movement of vehicles, farmers and workers between districts, cities and regions in accordance with all regulations, related to agriculture and production in general.

300 billion to the Horticulture and Viticulture Funds for the development of vacant and drylands. Additional funds will be allocated for the construction of wells, orchards and vineyards, leasing of greenhouses for a period of 3 years with a grace period of up to 7 years, as well as the sale of the leased land for 5-10 years, provided that certain types of food are grown. The procedure for directing the proceeds to the development of new lands is being introduced.

It is planned to introduce a system of providing special financial resources for the cultivation and purchase of fruits and vegetables, as in the cotton and grain sectors. According to him, commercial banks allocate to the clusters the necessary financial loans for working capital. They can also get short-term loans of 3 to 12 months, pledging the crop for cultivation and export.

In addition, commercial banks will gradually allocate at least 2 trillion soums from their resources to provide liquidity for a working capital loan.

To implement new projects in the field of fruits and vegetables and greenhouses, the task was set to attract \$ 700 million in credit lines from international financial institutions and direct the funds released by commercial banks from suspended projects to agriculture.

Privileges are also provided for fruit and vegetable exporters. In particular, 50% of the costs of their carriers will be covered by the Export Promotion Fund. An additional 50 billion soums will be allocated for this purpose.

The fodder base is a key factor in the development of animal husbandry. This year, at least 70 industrial feed mills will be launched. It is planned to fully develop 38,000 hectares of arable and pasture lands with the introduction of water-saving technologies to provide them with raw materials.

In order to develop and provide livestock, 74 family cooperatives will be established in the Republic of Karakalpakstan, Bukhara, Jizzakh, Kashkadarya, Navoi, Surkhandarya and Syrdarya regions. Farms for the production and sale of pedigree cattle will be established in each region.

Poultry farming is one of the seven treasures, and now the practice of raising poultry on a cooperative basis is widely introduced. To this end, large poultry farms distribute 500 heads of 3-day-old chickens to 100 households, provide feed and veterinary services. Forty days later, the cooperative itself buys the meat centrally.

In this way, each family will have an additional source of income and the employment of the rural population will increase. The Ministry of Employment and Labor Relations will make additional incentive payments from the Public Works Fund to the families participating in the cooperative for the period of raising poultry.

This year, a system of subsidies for those who work intensively in artificial ponds will be introduced to increase fish production to at least 350,000 tons. Depending on the efficiency of use, differentiated rates of land tax are applied. In addition, a model district specializing in fisheries will be established in each region, where loans will be allocated for the establishment of 10-15 intensive fish farms (an average of 100 tons of fish per hectare), processing enterprises.

Focusing on the development of beekeeping, it was noted that this year it is important to increase production by 5 times, establish a beekeeping cluster in each district, distribute 20 beehives to households through the establishment of a cooperative system. In this regard, recommendations were made on the full use of the potential of forestry, the care of more than 16.5 thousand new beehives.

One of the reserves that provide employment for the rural population at home is the silk industry. Considering that 382,000 boxes of silkworms will be fed this year, that means employing at least 750,000 people. Now, silkworm seeds are distributed in the provinces on the principle of "one house - one box of silkworms", and farms, cotton and grain clusters are also widely involved in feeding silkworms.

**CONCLUSION:** To further develop the system, credit lines of commercial banks worth 145 billion soums will be opened. It is planned to make additional incentive payments from the Public Works Fund to the households that have received the harvest.

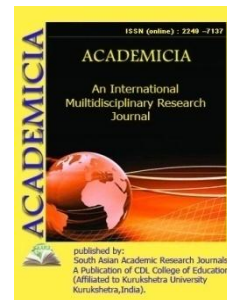
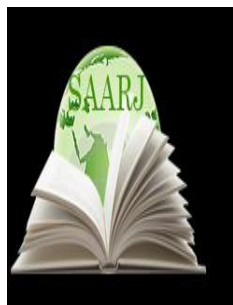
The implementation of these measures aimed at the development of agriculture will create an opportunity to meet the demand for food products in the country and expand exports. The low-income population serves to provide employment to the temporarily unemployed and to increase the source of additional income. This, in turn, will be an important factor not only in providing a stable supply of food to the population, but also in reducing their prices.

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## ALP AND TOGGENBURG GOATS BREEDING, FEEDING TECHNOLOGY DURING MILKING AND CHEMICAL COMPOSITION OF GOAT MOUTH MILK

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### ABSTRACT

*Effective use of imported purebred toggenburg and alpine goats in selection work the technology of feeding dairy goats in the intermittent cycle using farm-grown feeds and changes in the chemical composition of oral milk of goats during lactation.*

**KEYWORDS:** Goat, Goat, Fertilization, Lactation, High Productivity, Feed, Feeding Technology, Albumin, Globulin, Casein, Protein, Fat, Ash, Dry Matter, Maximum, Minimum, Lactation,

### INTRODUCTION

Avoidance of pregnancy in the detection of useful hereditary traits in toggenburg and alpine goats in the direction of imported milk and the development of technology for feeding dairy goats in industrial complexes using farm-raised feed during lactation.

"INZIM-TEX" Limited Liability Breeding Society of Syrdarya region, Syrdarya region in cooperation with the Research Institute of Animal Husbandry and Poultry feeding of dairy goats imported from abroad research work has been launched.

### Main part

The study goats were freely bred with pedigree heifers from the 3rd decade of September to the end of October of the fall season, and one head of breeding heifer was selected for 40-50 female goats. The ration for the feeding period up to 120 days of naturally weaned goats was determined (Table 1).

According to the type of feeding of dairy goats, the percentage of feed units in the diet is 19.21% of raw feed, 50.7% of succulent feed, 30.09% of mixed feed, a total of 161.98 kg of feed, 275,38 kg of dry matter, metabolic energy 27538 Mj, and 18.51 kg of digestible protein are consumed or the average daily feed unit is 1.35 kg et al, 2.30 kg of dry matter, 229.5 Mj of metabolic energy, 154.2 g of digestible protein, 1 o, b., corresponding to an average of 114 g of digestible protein.

**TABLE 1 FEEDING OF DAIRY GOATS UP TO 120 DAYS AFTER CALVING TECHNOLOGY**

Feed type	Feed composition					
	Foods	Feed, kg	Feeding unit, kg	Dry substance, kg	Exchange energy, Mj	Digestible protein, kg
Rough	Mixed herbspie	37	15,45	31,19	3119	1,52
	Wheat straw	71	15,62	60,01	6001	0,355
Juicy	Clover senage	134	38,86	60,3	6030	5,23
	Triticale senage	173	43,25	77,9	7790	5,19
Provender nutrients	Barley porridge	14	14,84	12,5	1250	0,88
	Wheat groats	12	11,52	10,2	1020	1,70
	Special provender biologically add fodder	21	17,43	17,9	1790	1,66
	Cotton shrot	6	4,92	5,4	540	2,0
total		468	16,89	275,38	27538	18,507

During the last 30 days of gestation period of dairy goats, the fetus develops rapidly, during which time, based on the conditions of care and feeding of pregnant goats, an average of 1.51 feed units per head of goats was determined (Table 2). In the diet of mother goats during this

period, the feed unit was 18.0% of feed, 54.42% of succulents, 28.05% of mixed feeds or a total of 45.20 kg of feed for 30 days, 77.19 kg of dry matter in 30 days. , the exchangeable energy was 7719 Mj and the digestible protein was 5.403 kg. The average daily per 1 head of mother goats was 2.71 kg of dry matter, 271 Mj of exchangeable energy, 188.9 g of digestible protein, 1 feed unit, and an average of 124 g of digestible protein.

In order to increase milk production in the neonatal period of dairy goats, the method of weaning was used to increase the milk yield of mother goats for 60 days (Table 3). the amount of mixed feed was increased by 42.62%.

The unit of feed consumed during digestion is 148.14 kg, dry matter 207.1 kg, metabolic energy 20710 Mj, digestible protein 16.51 kg. During the grazing period, goats consumed an average of 2.47 kg of feed per day, 3.45 kg of dry matter, 345 Mj of metabolic energy, and an average of 121 g of digestible protein per 1 kg of feed. The amount of mixed feeds in the diet was increased by 14% and corn silage was included in the ration.

**TABLE 2 FEEDING OF DAIRY GOATS IN THE LAST 5 MONTHS OF PREGNANCY TECHNOLOGY (30 DAYS)**

Feed type	Feed composition					
	Foods	Feed, kg	Feeding unit, kg	Dry substance, kg	Exchange energy, Mj	Digestible protein, kg
Rough	Mixed herbs pie	11	4,62	9,27	927	0,451
	Wheat straw	17	3,74	14,40	1440	0,085
Succulent	Clover senage	40	11,6	18,0	1800	1,56
	Triticale senage	52	13,0	23,4	2340	1,56
Provender nutrients	Barley porridge	3	3,18	2,67	267	0,189
	Wheat groats	3	2,88	2,55	255	0,426
	Special provender biologically add fodder	6	4,98	5,1	510	0,474
	Cotton shrot	2	1,64	1,80	180	0,658
		134	45,2	77,19	7719	5,403

**TABLE 3 FEEDING OF DAIRY GOATS DURING THE 60-DAY GRAZING PERIOD TECHNOLOGY**

Feed type	Feed composition					
	Foods	Feed, kg	Feeding unit, kg	Dry substance, kg	Exchange energy, Mj	Digestible protein, kg
Rough	Mixed herbs pie	5	27,72	55,64	5564	2,71
	Wheat straw	46	8,28	11,50	1150	0,640
Succulent	Clover senage	98	28,42	44,10	4410	3,82
	Triticale senage	34	21,0	37,80	3780	2,52

Provender nutrients	Barley porridge	23	24,38	20,47	2047	1,45
	Wheat groats	14	13,44	11,90	1190	2,0
	Special provender biologically add fodder	21	17,43	17,85	1785	1,66
	Cotton shrot	2	1,64	1,80	180	0,658
Total			45,2	77,19	7719	5,403

The share of feed in the total feed unit consumed during the fermentation period is 18.8% of coarse feed, 38.7% of succulent feed and 42.5% of mixed feed.

Taking into account the average milk yield of goats (Table 4) in the feeding technology during the 145-day milking period, the average 1-day consumed feed unit was 2.22 kg, dry matter 3.11 kg, 311 Mj of exchangeable energy, 271 g. digestible protein was consumed

**TABLE 4 FEEDING OF DAIRY GOATS DURING LACTATION 145 DAYS TECHNOLOGY**

Feed type	Feed composition					
	Foods	Feed, kg	Feeding unit, kg	Dry substance, kg	Exchange energy, Mj	Digestible protein, kg
Rough	Mixed herbs pie	143	60,06	120,6	12060	5,86
	Wheat straw	99	17,82	24,75	24751	1,39
Succulent	Clover senage	213	61,77	95,85	9585	8,31
	Triticale senage	181	45,25	81,5	8150	5,43
Provender nutrients	Barley porridge	46	48,76	40,9	4090	2,9
	Wheat groats	30	28,8	25,5	2550	4,26
	Special provender biologically add fodder	50	41,5	42,5	4250	3,95
	Cotton shrot	22	18,04	19,9	1990	7,24
Total		784	322,0	450,9	45090	39,34

During the 145 days of the lactation period, a total of 322.0 kg of feed units, 451.33 kg of dry matter, 45130 Mj of metabolic energy, and 39.34 kg of digestible protein were consumed. The share of feed in total feed consumption was 18.8% crude, 38.7% juicy and 42.5% mixed.

During the last 100 days of milking, the feed weight was reduced to 1.78 kg, with the feed weight being reduced to allow the goats to be weaned and prepared for the last lambing (Table 5). feed unit, 2.49 kg. dry matter, 249 Mj of exchangeable energy, and 217 g. The average amount of digestible protein is 121 g per 1 feed unit. digestible protein. Percentage of coarse, juicy, mixed foods was maintained in the diet.

**TABLE 5 FEEDING OF DAIRY GOATS DURING THE LAST 100 DAYS OF LACTATION TECHNOLOGY**

Feed type	Feed composition					
	Foods	Feed, kg	Feeding unit, kg	Dry substance, kg	Exchange energy, Mj	Digestible protein, kg
Rough	Mixed herbs pie	9	33,18	66,59	6659	3,239
	Wheat straw	5	9,6	13,75	1375	0,77
Succulent	Clover senage	117	33,93	52,65	5265	4,563
	Triticale senage	100	25,0	45,0	4500	3,0
Provender nutrients	Barley porridge	25	26,5	22,25	2225	1,58
	Wheat groats		16,32	14,45	1445	2,414
	Special provender biologically add fodder	28	23,24	23,8	2380	2,212
	Cotton shrot	12	9,84	10,80	1080	3,95
Total		433	177,91	249,30	24930	21,72

The chemical composition of the oral milk of alpine and toggenburg goats fed at the cross section of periods was studied.

Oral milk is produced by all types of mammals in the first days of life. The characteristic value of colostrum is that it is high in protein, mainly albumin and globulin, and is rapidly digested by the young organism. As the amount of albumin and globulin in colostrum decreases, the amount of casein in milk protein increases. The amount of mineral salts of phosphoric acid is 2 times higher than the content of ordinary milk, and these salts are involved in the construction of bone tissue and other tissues of the young organism in the early days. Oral milk has mainly bactericidal properties, preventing diseases through the ability of the young organism to resist microorganisms coming from the external environment.

Colostrum contains several times more fat than milk, and fat contains 3.4-8.1 mg of carotene in higher amounts than milk. Carotene is involved in the metabolism of the young growing organism and ensures the balance of vitamins in the animal's body. The chemical composition of oral milk changes rapidly during lactation and gradually turns into normal milk.

The function of the mammary gland varies depending on the effect of the endocrine glands. This process begins two weeks before the last birth of the fetus, the secretion of the mammary glands begins, the process of preparation for the production of oral milk begins, and with the birth of the child begins the production of mammary gland secretion fluid, ie colostrum.

This process takes 5-6 days in goats. Colostrum is high in albumin and globulin, which protect the newborn from germs. The amount of albumin and globulin gradually decreases with the increase of lactation day, and the amount of casein in oral milk increases.

The minerals in breast milk are several times more abundant than in milk, which balances the metabolism of minerals in the body and stabilizes the pH of the body's environment.

At the INZIMM-TEX goat breeding complex in the Syrdarya district of the Syrdarya region, the chemical composition of oral milk of 100 alpine and toggenburg dairy goats up to the 5th day of lactation was studied.

Chemical proteins, fats, carbohydrates, and mineral content of oral milk in the same type of feeding of imported alpine and toggenburg dairy goats were studied during the lactation period.

Results of the study: The fat content of oral milk on the 1st day was 14.78% in average alpine dairy goats, the lower limit of fat content was 13.78%, and the upper limit was 16.25%. It was 3.35 times more than on day 5. The amount of fat in breast milk gradually decreased due to the increase in lactation day. This figure averaged 10.43% on day 2 of lactation, an average of 8.73% on day 3, and an average of 6% on day 4, with an average fat content of 4.41 by day 5. %.

The protein content of oral milk averaged 8.36% on day 1 of lactation, an increase of 3.81% over day 5 of lactation. The amount of protein in breast milk ranged from 7.52% to 9.20% on day 1 of lactation, a figure that gradually declined to 4.09-5.0% by day 5 of lactation.

The sugar content in oral milk averaged 2.75% on day 1 of lactation, increasing with increasing lactation days, and averaged 4.70% on day 5 of lactation.

The mineral content of oral milk averaged 1.47% on day 1 of lactation, ranging from 1.32 to 1.62%. With the increase in lactation period, this figure averaged 0.830% by the 5th day of lactation.

The dry matter content of oral milk averaged 27.36% on day 1 of lactation, compared to 24.62-30.09%. With the increase in lactation days, the percentage of dry matter decreased and averaged 14.49% by day 5.

The composition of oral milk when imported toggenburg goats were fed on the same type of ration was as follows. Mother goats of Toggenburg breed had an average fat content of 14.38% on the first day of oral milk, the lower limit of fat content in oral milk was 12.94%, the upper limit was 15.82%, which is 2 times higher than that of alpine goats. Was down 71%.

Compared to the 5th day of oral milk decreased by 28.51%. The amount of fat in breast milk gradually decreased due to the increase in lactation day. This figure averaged 10.06% on day 2 of lactation, 8.38% on day 3, and an average of 5.67% on day 4, and by day 5 the average fat content of oral milk was 4. , Accounted for 10%.

The protein content of oral milk averaged 8.01% on day 1 of lactation, a decrease of 53.56% compared to day 1 of lactation and 3.72% by day 5 of lactation.

The amount of protein in oral milk was 7.21-8.81% on the 1st day of lactation, 7.37% on the 2nd day of lactation, and 6.63-8.11% on the 3rd day of lactation. It ranged from 5.68% to 5.11-6.25%.

**TABLE 6 CHEMICAL TRANSFORMATION OF GOAT'S MILK,% (N = 100)**

Days	Fat	min	max	Cv, %	Protein	min	max	Cv, %	Sugar	min	max	Cv, %	Ash	min	max	Cv, %	Dry article	min	max	Cv, %
Alpine goats																				
1	14,78	13,78	16,25	1,10	8,36	7,52	9,20	0,63	2,75	2,47	3,03	0,16	1,47	1,32	1,62	0,15	27,36	24,62	30,09	1,46
2	10,43	9,38	11,47	1,01	7,60	6,84	8,36	0,42	2,99	2,69	3,29	0,15	1,0	0,9	1,1	0,14	22,02	19,82	24,22	1,21
3	8,73	7,86	9,60	0,95	5,81	5,23	6,39	0,59	3,42	3,08	3,76	0,14	0,950	0,855	1,05	0,12	18,91	17,02	20,80	1,15
4	6,0	5,40	6,60	0,90	5,05	4,55	5,56	0,44	4,29	3,86	4,72	0,13	0,880	0,792	0,968	0,17	16,22	14,60	17,84	1,12
5	4,41	3,97	4,85	0,85	4,55	4,09	5,0	0,42	4,70	4,23	5,17	0,13	0,830	0,747	0,913	0,15	14,49	13,04	15,94	1,07
Toggenburg goats																				
1	14,38	12,94	15,82	0,97	8,01	7,21	8,81	0,75	2,64	2,37	2,90	0,26	1,44	1,30	1,58	0,17	26,47	23,82	29,12	1,1
2	10,06	9,05	11,07	0,83	7,37	6,63	8,11	0,56	2,85	2,56	3,14	0,19	1,29	1,16	1,42	0,16	21,27	19,14	23,40	1,17
3	8,38	7,54	9,21	0,82	5,68	5,11	6,25	0,41	3,32	2,99	3,65	0,15	0,970	0,873	1,07	0,18	18,35	16,52	20,19	1,14
4	5,67	5,10	6,24	0,70	5,09	4,58	5,60	0,48	4,20	3,78	4,62	0,30	0,877	0,789	0,965	0,30	15,84	14,25	17,42	1,1
5	4,10	3,6	4,5	0,6	3,	3,	4,0	0,37	4,	3	4,	0,1	0,	0,7	0,9	0,2	12,	11,	14	0,

		9	1	8	72	35	9		16	,	58	5	8	45	11	2	81	53	,0	97
										7			2						9	
										4			8							

The sugar content in oral milk averaged 2.64% on day 1 of lactation, increasing with increasing lactation days, and averaged 4.16% on day 5 of lactation.

The increase in the amount of sugar in breast milk during lactation serves to meet the energy needs of the young growing organism.

Decreases in fat, protein, and minerals in oral milk, in turn, led to a decrease in dry matter in oral milk, and by day 5 of the lactation period, oral milk gradually turned into milk.

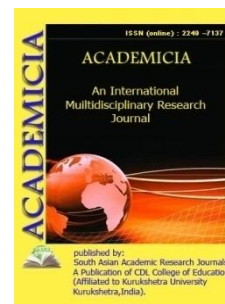
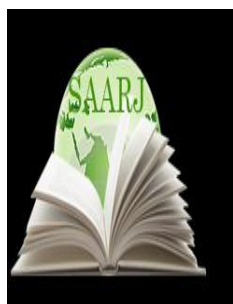
## CONCLUSION

The full periodicity of milk production from dairy goats will be ensured through the use of feeding technology in the dairy complex, as well as the introduction of the developed technology in farms intended for industrial production of goat's milk.

Chemical analysis of imported alpine and toggenburg goat oral milk shows that as the lactation period increases, the percentage of fat, protein and dry matter in oral milk decreases, and a gradual transition from udder secretion to milk production is observed. The chemical composition of the oral milk of the mother goats of the alpine and toggenburg breeds imported from the experiment did not differ much between the breeds.

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## **A STUDY OF ELEPHANTS TRADE DURING 13 CENTURY B.C -1796, BEFORE ARRIVAL OF THE BRITISH IN JAFFNA**

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### **ABSTRACT**

*Sri Lanka is a country with very long historical traditions. Particularly in Northern Sri Lanka, as one of the main sources of revenue, elephant trade occupied a dominant place, right from very ancient times up to the arrival of the British. Through this trade not only the kings of Jaffna, but also the Europeans who came later including the Portuguese and the Dutch were immensely benefited. This trade which was one of the chief sources of income to the Northern Sri Lanka, was so profitable that apart from local purchasers, even, South India and Bengal were induced to buy Jaffna elephants willingly for their various purposes. Though the elephant trade had been so flourishing, in the past, no individual scholar appears to have gone into this aspect in detail. This study therefore aims primarily in filling such a gap, and also pioneering such scholars as may be taken up by future scholars into this aspect. This study is based on a historical approach. It uses primary and secondary data. Primary data mostly include stone inscriptions, reports of Europeans and various other documents. As secondary data are used, subsequent books, articles, website data and interviews based on primary data. When the elephant trade carried on in Jaffna prior to the arrival of the British, is studied, the results bring one to the conclusion that elephant trade had been one of the main source of income of Jaffna.*

**KEY WORDS :** Monopoly, Perl trade, elephant trade, Aryan kings, Europeans

### **INTRODUCTION**

Generally, to understand the history of Jaffna prior to the arrival of the British, it is easy for the scholars to dividing three main periods, viz the 3 periods of Jaffna Kings, the Portuguese period

and the Dutch period. Among these the first was a period of administration kings of Jaffna and the other two may be treated as periods of European administration. During each of these periods the contribution made by Jaffna to the economic activities of Sri Lanka had been significant. Though agriculture and fishing formed the base of the economy of the people of Jaffna, right from very ancient times they were interested and involved in local and overseas trading activities. Thus pearl fishing and elephant trade occupied a prominent place in their activities. Here too, elephant trade had been of special importance in their local and overseas trade activities. During the periods of Jaffna kings, the elephant trade was totally under their control. Later during the periods of Portuguese and Dutch rule, it was brought under their control. While the profits from such trade activities reached the hands of the rulers who administered Jaffna during the relevant periods, the name of Jaffna got renowned in a number of other countries even beyond India.

### **THE PERIOD OF JAFFNA KINGS (AFTER THE 13TH CENTURY A.D)**

At the time of the arrival of the Portuguese, Sri Lanka was divided into three separate administrative units, viz: Kotte, Kandy and Jaffna. Each of these was functioning as an autonomous kingdom. (*Silva, K.M.De.,1981*). However there was no unity among these kingdoms. Thus, the kingdom of Jaffna was being administered by Hindu, Tamil Kings with Nallur as their capital. During their period, the notes of indicate that the kingdom of Jaffna comprised the neighbouring islands and there land areas from Mannar in the west to Trincomalee in the east. (*Rev.Queyroz de Fernando 1930*)

Though controversies exist between Singala and Tamil historians regarding the beginning of the Jaffna Kingdom, generally its beginning is attributed to the 13th century by most of the historians. Similarly much difficulties are experienced in obtaining historical information about the original boundaries of Jaffna Kingdom. The early kings of Jaffna are said to have descended from the dynasty of Singai Ariyan. This is known from the literary words and inscriptions that appeared during this period. Generally speaking, it may be held that the rule of Aryan Kings in Jaffna was a result of the invasions modern Sri Lanka under the leadership of the Aryan emperor .(*Pathmanathan,S., 2011*). The administrative systems that followed, were also introduced by them.

The commercial activities undertaken during the period of the Jaffna kingdom were of two types, viz: local and overseas. The overseas trade activities again, could be viewed from two angles. One is the trade activities it undertook within Sri Lanka with the other kingdoms and the other refers to trade activities carried out outside the country with other countries. harbours like Kayts, Kankeshanthurai, Point Pedro, Colombboththurai, mathottam, Arippu, Kachchai and Mullaitivu were immensely helpful to their trade activities. Thus it was through these harbours that trade relations were maintained with the eastern and southern parts of the island as well as with parts of South India. These harbours had been useful not only to the kings of Jaffna but also to the Kingdom of Kandy to maintain relations with south India.(*Nithiyanantham,V.,2003*). Since Colombboththurai was very much closer to the kingdom of Jaffna, relations with Vanni could be easily maintained.

Elephant trade occupied a prominent place among the revenue sources of Jaffna kingdom. Though the kings of this period imposed various taxes such as land tax, head tax, officers' tax and cast tax and also earned much income through such activities like pearl fishery, elephant

trade occupied a much more significant place among their sources, of income. There was no particular season for elephant trade which was a monopoly of the kings of that time. They were earning revenue through this elephant trade throughout all seasons of the year.

Unlike as at present, elephants were found in large numbers in all parts of the country. They were abounding in the vanni forests, and beyond this in the eastern parts of Sri Lanka including forests around Trincomalee and Batticaloa and also in the southern forests of Sri Lanka. (Sivasamy, V., 2014). These animals which could cause severe damages, occupied a prominent place in the internal and overseas trade of the kingdom of Jaffna.

The role played by the inhabitants of Vanni area and known as *vanniyars*, is of great significance. At present this area includes places like Vavuniya, Mullaitivu, Mannar and Kilinochchi. Though elephant trade occupied a place among the sources of revenue to the Jaffna kingdom, it has to be pointed out that the elephants were obtained from Vanni areas which were far away from the township of Jaffna. However the ancient history of Vanni area depends largely on archaeological evidences. Information is available to the effect that they paid annual rates to the Aryan kings and also that during Portuguese invasions on Jaffna, the *Vanniyars* of Mulliyavalai and Panankamam had offered military assistance to the kings of Jaffna (Pathmanathan, S., 2014). As Vanni area was mostly occupied by dense forests and was far away from Jaffna the Portuguese and the Dutch could not directly administer it during their periods.

The *Vanniyars* were highly trained in catching elephants. Many of the chieftain kings in Vanni used to catch elephants and offer them as tributes to the kings of Jaffna. Professor S. Pathmanathan says that the kings of Jaffna received such tributes particularly from *Vanniyars* of Adangappattu. (Pathmanathan, S., 2011). As most of the lands in Vanni were not owned by the people of that area, the Dutch company claimed ownership to such lands. Thus the *vanniyars* were able to administer such lands only after paying tributes to the Dutch. Annually the *vanniyars* paid tributes in form of 30 elephants out of which two thirds were male elephants while one third was female elephants. (Kunayasa, K., 1995). The land portion through which elephants were led into Jaffna from vanni was known as Anaiyiravu (Elephant pass), which name is still in vogue.

The kings of Jaffna used to benefit immensely by selling such elephants gathered as tributes, to other countries including South India. Mostly they were sent to South India. They were used mostly for various purposes by contemporary kingdoms in South India and Bengal. Besides, they were also trained to do other types of work. They were also used to lift and drag heavy objects. Elephants were also kept and displayed in temples for worship as well as marks of religious faith. While they were kept and maintained in the palaces of kings and residences of chief officials, they were also habitually taken out whenever the king went out on his visits. (Sivasamy, V., 2014). In other words elephants were regarded as auspicious objects too.

Professor S. Krishnaraja mentions that elephants from Sri Lanka were used with much profuse in the kingdoms of Vijayanagara and Bamini. (Krishnaraja, S., 2000). He further says that there were 8000 elephants in the kingdom of Vijayanagara alone. There are references to the effect that traders who come to Jaffna from the coasts of Cholanamandala and Bengal used to purchase the elephants brought down from Vanni and export them via Kayts harbour. While coming to Jaffna, they used to bring in their ships, loads of paddy and rice which were readily purchased by

the kings of Jaffna because during that period there was much shortage for rice, as cultivation depended totally on the availability of rainfall.

The importance attached to elephants by the kings of Jaffna is comparatively less, than that of the kings in South Sri Lanka. This was more because contemporary people in South Sri Lanka attached higher religious importance to elephants and the chances of their use in wars were also more. There are references to say that Rajasingha II, used 12,000 elephants in his battle against the Dutch. On the other hand in the Jaffna regions there had been only a few battle, and these too were not so big as to warrant the use of elephants in big numbers.

By the nature of the landscape of Jaffna it had several harbours which were of great help in carrying out its overseas trade activities. Much income was derived from such trade activities. Ibn Battuta who came to Sri Lanka in 1344 A.D says that he had seen in the kingdom of Jaffna, extended business activities which were connected largely with overseas trade. (Pathmanathan, S., 2002). Thus a larger portion of the overseas trade activities of the kingdom was more closely linked with the coastal areas of South India.

There are evidences of elephant trade going on between Jaffna and other parts of Sri Lanka as well as with South India as available in the form of many stone inscriptions. A specific example is the inscription Parakramabahu I, in Nainativu. This inscription speaks of certain facilities provided to foreign traders and also some rules to be followed by them. Foreign traders were called '*Paradesis*'. There are also references about bringing their ships loaded with animals like elephants and horses and also other commercial goods.

There were rules to the effect that if the sea vessels bringing animals like horses and elephants were found damaged, one fourth of the animals were to be offered to the king's chieftain, and the rest was to go to the vessel's owner. Likewise, if the vessels transporting other commercial items were found damaged, half of the goods should go to the chieftain and the other half to the owner. (Krishnaraja, S., 1998). Thus, this inscription gives a broad description of the trade relations between Sri Lanka and South India. Particularly this stone inscription confirms that elephants were imported into Sri Lanka. An important message given in this inscription is about the importation of elephants to Jaffna. This appears to be somewhat different to a situation where South Indians preferred to purchase elephants from here. Maybe that the Indians offered these to please the king, while there are also instances where kings on their own preference, chose to purchase such elephants from India. Irrespective of anything, it is noteworthy that elephant trade played an important role in the acquisition of the king's sources of revenue.

#### **PORTUGUESE AND DUTCH PERIODS (1050-1658, 1658-1796 A.D)**

The Portuguese who accidentally stepped into Sri Lanka, took advantage of the disturbed political situation in the kingdom Kotte. Step by step they interfered into political affairs of Sri Lanka and brought all the maritime areas under their control. At the same time it has to be noted that their influence over Jaffna was achieved rather late. The main reason for this, was that, unlike as in South Sri Lanka spices like cinnamon were not found in Jaffna. However to ensure their own security and because of the availability of pearls from Mannar, the Portuguese brought Jaffna also under their direct control. (Arunthavarajah, K., 2014). Following them, the Dutch brought the entire coastal areas including Jaffna under their rule in 1658.

Through in general, the objectives of the Portuguese and the Dutch many appear similar, as seen from their activities the former had religion and trade as their prime motives, while the latter were concerned mostly about trade. Furthermore, both parties adopted the same administrative systems that prevailed during the rule of the kings of Jaffna. Since they found those systems quite congenial, they did not try to bring about any considerable changes in those systems. They accepted the same sources of revenue that were in vogue during the time of Jaffna kings. The various taxes they imposed on the people of Jaffna many in this regard be cited as examples.

This led to the continuation of the internal and external trade activities that went on during the period of the kings of Jaffna. However, the production and export of tobacco were introduced only by them in Jaffna. Besides, elephant trade was considered to be a profitable commercial activity during their periods. The elephant trade during their periods, had developed into a far greater trade activity than during the period of Jaffna kings. The main cause for such development was the importance attached to this trade by the Portuguese and the Dutch. Elephants caught from various parts of Sri Lanka including vanni, were taken to India through the harbours in Jaffna. A large number of elephants were exported via Karaitivu harbour. Professor V.Sivasamy that this is ascertained by the name 'Anaippalam' (Elephant bridge) still found in Karainagar. (Sivasamy,V.,2004). At the beginning, among all commercial goods, only the trades of elephant and dyeing roots were declared as the monopoly of the rules.

There are references to say that during the 17th century elephants were exchanged for salt petre with the *nayakkars* of Mathurai. During the Dutch period, the trades from Bengal to Jaffna used to come with cheap rice stocks and take elephants in return. The moggallayans showed much interest in purchasing Jaffna elephants. They were sold elephants by the government at the rate of 800 bushels per elephant. As for as Jaffna was concerned, the Dutch derived the highest income from the sale of elephant.(Pathmanathan,S.,2014). Particulatly, Muslim trades had been engaged in bringing the necessary rice quantities, and taking bach elephants in big numbers. Further, the trade of the Dutch also included such items like sugar, silk, oil and opium. 29 percent of the income of the Dutch was derived from the trade of elephants during period 1669-70 A.D.

The following information pertaining to elephant trade is available from a report sent to the viceroy in Buddleia by a Dutch commander at the time the Jaffna fort was captured by the Dutch from the Portuguese.

"I have seized 27 elephants, which had been tied at Anaippanthi for sale to Muslim traders. The price fixed for these elephants by the Portuguese is very low. I have decided to sell them at a higher price to Muslim traders. I have also despatched 10 of these elephants to governor Pitt of cholamandalam" - (Kunarasa,K.,1995).

Dutch officials paid much attention to keep elephant hunting grounds and stables in good condition. An officer by the name *gajanayaka* was appointed in charge of catching elephants. He was a *mudaliyar* belonging to the Sinhala race. An elephant department was created and an officer called *Ethendenerala* was appointed in charge of it. He was fully responsible to the profession of catching elephants. *Gajanayaka* would take necessary steps to train the caught elephants and put them into stables. At this background, these two officers were responsible for the hunting areas as Well as for the people living there. People residing in the training areas for

elephants had been ordered by the Dutch to provide their services in respect of the land occupied by them. (Krishnaraja, S., 2000).

Normally the elephants caught by the etchers and given to the government are kept at stables for about two weeks in order to check whether the elephants developed any problems, in which case those who caught and gave the elephants were held responsible. People engaged in elephant hunt were known by various names such as *Mothakkam*, *Pannikers* and *Thalayars*. Thanakkarars were another section of people responsible for feeding the elephants. After two weeks, the height of the elephant would be measured and signets would be marked on their backs. There after the elephants would be ready for sale.

As mentioned earlier the Dutch also encountered certain problems in vanni as did the Porlignese. Hence they entrusted the administrative responsibilities into the hands of the *Vanniars* themselves and in return collected tributes in the form of elephants. Thus the Dutch government entered into agreements jointly, severally and expanded its elephant trade. Generally all such agreements made with the *vanniyars* were favourable to the Dutch. Such agreements helped the Dutch, to obtain valuable elephants and other goods at no cost. In general, more than any other trade activity, it was the elephant trade that helped to maintain close connections between Vanni and Jaffna. Besides it was this activity that was causal to the establishment of market settlements and industries within Jaffna peninsula and Vanni region. (Krishnaraja, S., 2014).

It is worth noticing that people who lived in places like Mathottam, Musalippatthu, and Nannattan were willing to offer elephants instead of the grain tax and head tax payable by them to the Dutch government. Consequently the Dutch had the hope of collecting 29 elephants from them annually. They also hoped to get another 25 elephants from poonakary area. Each of the officers in these areas, estimated the value of the grain tax they received and calculated the number of elephants to be given to the Dutch. The value of a male elephant was decided as 300 bushels and that of a female elephant as 250 bushel. Professor S. Pathmanathan is the famous historians in Sri Lanka, gives the following figures as examples:

Panankamam	- 16 elephants
Karikkattumoolai	- 7 elephants
Karunavalpathu	- 4 elephants
Thennaimaravady	- 1 elephants
Melpatthu	- 1 elephants
Mulliyavalai	- 1 elephants (Pathmanathan, S., 2014)

Because of the problems the *vanniyars* encountered in catching elephants, they could not supply the number of elephants as calculated. Owing to this there are references to many deficits in the supply of elephants. It is worth noticing that the number of elephants not provided as tribute was 80 in 1665 A.D, while it rose to 300 in 1669 A.D. Generally the streets constructed by the Dutch were of great help to their trade activities. The trade activities undertaken during their period, may be regarded as to have provided the bases to the present shape of towns and villages seen by us, and also to the self sufficiency of the people who lived here. (Krishnaraja, S., 2014).

The elephants collected by the Dutch from South Sri Lanka as well as from the Vanni areas, were taken for exportation through the main commercial roads that were joining Ottisuttan, Mannar and Jaffna areas. Besides these, the Dutch acquired further elephants from Batticaloa and Trincomalee as tributes. These elephants were later sold by auction in Jaffna. The use of the roads constructed by them for their elephant trade, is still remaining indispensable to road users.

Some hearsay information about elephant trade and the names of some places remind the elephant trade of the past even today. Anaicottai, Anaippanthy, Anayiravu and Anaippalam are examples of such names. The notes of Rev. Foldeyer and other Dutch official references indicate that Sri Lankan elephants were exported to South India and Bengal via Anaippalam in Kalaboomi, Karainagar. (Sivasamy, V., 1990). Even the name Chankanai is supposed to be associated with elephant trade. There is a traditional hearsay information to say that during the period of the Dutch, elephants and conch shells were taken to Mathagal harbour through this place and hence it derived the name Chankanai. There is a tank called Pattanaikeni in Dutch Road, Chankanai. Various tales exist among the people to the effect that ten elephants were bound and bathed in this tank to reduce their wild temper. (interview - Pavalachandran, S., Chankanai).

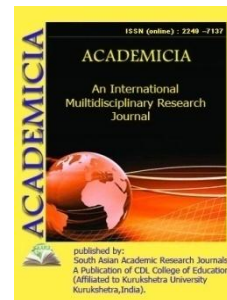
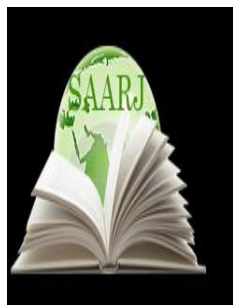
## CONCLUSION

Prior to the arrival of the British in Jaffna, elephant trade has been occupying a prominent place among the trade activities that prevailed in Jaffna. This trade which dates back to a time prior to the period of the kings of Jaffna, continued to be a famous trading activity throughout the periods of Jaffna kings, the Portuguese and the Dutch. This elephant trade activity played a significant role in the internal and external commercial activities as far as the economy of Sri Lanka was concerned. Thereby the name of Sri Lanka was world renowned.

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## A PIECE FROM THE HISTORY OF THE ART OF PUBLIC SPEAKING

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### ABSTRACT

*The article discusses the views of the founders of world oratory, such as Socrates, Plato, Demosthenes, Empedocles, Theophrastus, Cicero, on the art of oratory. Information is provided on the oratory qualities of these speakers.*

**KEYWORDS:** *Art Of Public Speaking, Oratory, Speech, Orator, Rhetoric, Oratory Quality, Oratory Theory, The History Of Oratory.*

### INTRODUCTION

The world oratory culture has a very ancient history. The history of the art of public speaking dates back to two and a half thousand years. Opinions about the emergence of the first oratory schools are extremely diverse and varied. Experts associate the earliest examples of oratory with the observations of Chinese, Indian, and Egyptian philosophers. Such views came through the Shu Jin (Book of Legends). Sources and materials in it are associated by scientists with the third and second millennia BC.<sup>1</sup>

The cornerstone of the establishment of oratory schools in ancient Greece was laid by Socrates and his student Plato.

When Socrates tested a man who had been brought in to test, he always said, "O stranger, tell me something." Depending on the speed of his speech, facial expressions, intonation, vocabulary, literacy, Socrates determines a person's profession, environment, level of knowledge and beliefs.

"Who can be a speaker? Is it possible for everyone to be a speaker? The experience of Demosthenes (e.o.384-322 yy) can be an extremely striking example to this question. Sources say Demosthenes made an angry speech against Philip of Macedon. The text of this speech was also read by Philip himself. After reading the text, he said, "If I had heard this speech in the presence of others, I would have voted against myself." But his first speech was not a success.

His contemporaries even laughed at him. After all, Demosthenes was a sweet-tongued man from childhood, on top of that he was a low-voiced man. Of course, it was difficult to win the hearts of hot-blooded Athenians with such a voice. Yet in the body of this unsuspecting young man was hidden an inexhaustible power and might. He realizes the need to work tirelessly on himself. That's why he reads a poem with small grains of sand in his mouth, tries to strengthen his voice during the run, and talks when he comes out of steep slopes. Strong will and tireless work show their strength: his speeches begin to be recognized as the most mature and perfect speeches". The conclusion to be drawn from the experience of Demosthenes is extremely simple and natural: it means that mastering the art of public speaking is within the reach of everyone.<sup>2</sup> For this, it is enough if he can find the motivation to work, the strength and will to exercise continuously.

In ancient Greece, Socrates, Demosthenes, Philocrats topped the list of legendary orators.

Diogenes Laertsky points out that in ancient Greece, this art was elevated to the level of a special science by Empedocles Akragantsky. He lived in Sicily in the first half of the fifth century BC. Nevertheless, in the works of Aristotle, references to the treatises of Corax are given, which are recognized as the first examples of the art of oratory.

Oratory as an art was valued and actively used in ancient peoples, especially by philosophers, politicians, cossacks, actors, and physicians. The enumerated areas show that the speaker has a variety of directions. However, their unifying aspects are also not insignificant. Their common aspect is related to the goal to be set. It is about showing the listener the truth of the speaker and convincing him of it. In a word, the art of public speaking is a means of mass influence. It is no coincidence that Corax said, "Beautiful speech is a servant of faith."

It is well known that the problem of oratory and rhetoric has been of interest to mankind since time immemorial. Aristotle's Rhetoric has been translated into many languages of the world for thousands of years and studied by scholars of pedagogy, psychology, philology, and philosophy, and has been one of the first original sources in many fields of science.

In the education system of Aristotle's time, "Speech Culture" and "Oratory" were inseparably called "Rhetoric", and future statesmen and public figures, as well as every cultured intellectual, had to study rhetoric in depth. Rhetoric was first studied and commented on by Theophrastus, a student and follower of Aristotle<sup>2</sup>. Theophrastus, who lived from 371 to 287 BC, was a famous naturalist in ancient Greece. His services, especially in the field of botany, are invaluable. But his worldly reputation was brought to him by his views as a philosopher. He was born in Ereza. He went to Athens and studied at the famous school of philosophers. In particular, he enjoyed the lessons of Plato's academy and the lessons of Aristotle's lyceum.

In fact, his real name was Tirtam. Theophrastus, on the other hand, is the name given to him by Aristotle, which means "divine speaker," "possessor of divine speech." Aristotle bequeathed all his manuscripts to Theophrastus.<sup>3</sup> It is also primarily a recognition of his personal abilities and talents.

Theophrastus has been recognized as the author of 227 works. Unfortunately, not all of them have reached us. His more complete works are The Natural History of Plants and The Life of Plants, which consist of nine books. The next book consists of 6 volumes.

What is important to us is his "Rhetoric Textbook". But only his name survived.<sup>4</sup>

Mark Tully Cicero (106 BC - 43 BC), who lived in the second century BC, was one of the greatest representatives of Roman preachers. More than fifty of his speeches, about twenty of his works, including a special book on oratory, and many of his letters, have survived to the present day.<sup>5</sup>

Cicero emphasizes that true oratory is associated with much knowledge and serious aspirations.

The speaker's word was highly esteemed in ancient Rome. Cicero notes that his contemporaries treated the speakers with the same attention and respect as the gods. He stressed that the two categories of people in the world deserve the highest level of respect and esteem. One of them is a military leader and the other is a speaker.

According to Cicero, truthfulness and honesty are the main qualities of a speaker. It must be based on the norms and criteria of the mother tongue. After all, "Speaking Latin correctly is not yet a special service, but not being able to do it is a shame. For true speech is never the quality of a good orator, but the (permanent) quality of every Roman."

"It is not enough to possess wisdom, it is permissible to be able to use it."<sup>6</sup>

"Speech is a light that illuminates the mind."<sup>7</sup>

"There will be no happiness among the ignorant, nor unhappiness among the wise."<sup>7</sup>

We try to use Cicero's views and wisdom on the art of oratory in our work experience. In particular, we provide our students with some factual material about this famous speaker:

Cicero Marcus Tullius<sup>8</sup> - an ancient Roman politician, famous orator, philosopher and writer - is a creator. He is the author of many works. We have received 58 speeches in court and politics, 19 speeches, treatises on philosophy and politics, more than 800 letters.

Cicero was born on January 3, 106 BC, in the Italian city of Arpin to a military family. He died in 43. He learned oratory from the great experts in Rome.

He was seriously engaged in the theory and history of oratory.

Cicero distinguishes three types of speech in terms of functional classification:

1. Praise and rebuke speeches (in the form of ceremonial speech).
2. Convincing and discrediting (aimed at approving or denying) speeches (in a council speech).
3. Prosecution and defense (acquittal) speeches (in court, arbitration speeches).

Apparently, Cicero fully adheres to Aristotle's "Rhetoric" in such a classification of speech. He also points to the following as three sources of oratory:

1. The natural ability of the speaker (spiritual-enlightenment level, talent of the speaker).
2. Theoretical education (This condition is similar to knowing the personality of the speaker, which Aristotle studied very deeply in his "Address", and his prefaces (initial foundations) in all areas.
3. Practical training. (Practice constant but meaningful speech and give a practical speech in front of an audience).<sup>9</sup>

According to Cicero, the three purposes of the art of public speaking are:

1. Persuasion. That is, the speaker must convince the audience that the issue or problem he is considering can be solved in one way or another. But, in our opinion, giving, peace, enjoyment is related to the aesthetic richness of speech.

2. Enjoy the audience.

3. Excite the audience.<sup>10</sup>

Translator and researcher Urfon Otajon found that Cicero shows that the process of preparing and narrating a speech consists of five parts:

1. Identify the material (subject - H.A.). This, of course, has to do with the curriculum of each subject.

2. Placement of material (thoughts and arguments in speech). (Speech plan and composition).

3. Narration (i.e., the style in which the speaker expresses his or her thoughts).

4. Remember the content of the speech text.

5. Speaking.

These ideas of the great orator Cicero are also very helpful in improving the speech skills of teachers, who impart knowledge, enlightenment and education to young people, students, a large audience.

Of course, getting to know this information is not just about reading and hearing it. As noted above, many aspects of the theory and practice of oratory are addressed under the pretext of the views of the speakers, creating an additional opportunity for students to enrich their skills and competencies in this area.

The more extensive observations and research of Eastern thinkers in this regard are also noteworthy. In the Renaissance in the East (IX-XII centuries) Aristotle's "Rhetoric" and "Poetics" ("Sinoat fi-sh-she'r") Translated and commented on by Abu Ishaq al-Kindi, Ibn Rushd, and others.<sup>11</sup>

We are proud of the rare legacy of such great thinkers as Abu Rayhan Beruni, Ibn Sina, Farobi, Zamakhshari, and the great legacy of our thinkers such as Mahmud Kashgari, Yusuf Khas Hajib, Ahmad Yugnaki among pure Turkic sources.

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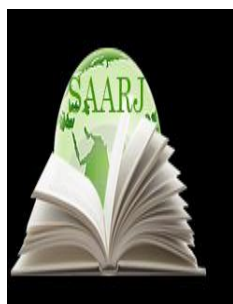
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## A STUDY OF THE CREATION OF THE ANBAR OTIN

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### ABSTRACT

*Anbar Otin is one of the enlightened poets of the second half of the 19th century and the beginning of the 20th century, who wrote in the literary environment of Kokand. Although the poet lived a short life, she left a rich literary legacy. The poetess has created works in the genres of ghazal, muhammas, rubai, fard, qita, mustazod. The article provides a brief overview of the writer's creative heritage. Also, the history of the study of the poet's literary heritage is studied in two periods - the first and the stages of development. Articles, research and current editions of the poet's works have been studied. Conclusions were drawn from the research and specific tasks were identified.*

**KEYWORDS:** *Literary Heritage, Poet, Poetry, Analysis, Research, Conclusion.*

### INTRODUCTION

Independence, like all other fields, poses certain challenges to literature. One of the important issues is to re-evaluate the history of our national literature, the way of life of our mature poets and writers, their creative activity on the basis of historical sources, based on the laws of artistic creation, scientific study of their creative heritage. One such artist whose literary heritage needs to be re-examined is the poet Anbar Otin. Before studying this aspect of the issue, it is necessary to look at the history of the study of the poet's work, to clearly define the tasks to be performed.

Anbar Otin's literary legacy so far is not all of the poet's work. So far, the poet's biography, 53 ghazals written in Uzbek and 20 in Tajik, 8 muhammas written in Uzbek and Tajik, 1 mustazad, 2 qitas, 2 rubais, 4 individuals, 28 "single bytes", prose and The only thing known is the poetic work "Philosophy of Black" and "Mushoira"(wasn't found). It turns out that she is a bilingual poet who wrote in Uzbek and Persian-Tajik languages. By writing in two languages, the poet not only strengthened the cultural and literary ties between the two nations, but also tried to strengthen the ties of friendship and brotherhood between the two nations.

The study of the poet's literary heritage can be divided into two periods:

1. The first period - articles with preliminary information about the biography and literary heritage of the poet.
2. The period of perfection is the scientific work that involves the process of relative deepening of research.

The first article on the poet's work was published in 1962 by Professor Laziz Kayumov. Giving information about Anbar Atin's life, the scholar describes him as an "internal" ambassador of Uzbek democratic literature. The scholar is not limited to this article alone. The poetess continued her scientific research on creativity. "The article titled The Bright Star of Uzbek Democratic Literature is proof of this [10].

During the first period of the study of Anbar Atin's work, several more articles were published. Laziz Kayumov's "Light in the Leaf" [9], journalist Turob Akbarkhodjaev's "Philosophy of Poetry" [1], Fatima Husainova's literary heritage of the poet, its genre features, a number of articles about the scope of the subject [13], Muhsin Olimov's "Anbar Atin" [6] was created during this period. The scientific works published during this period were mainly of an introductory nature, in which the poet's works were not thoroughly analyzed.

Fatima Husainova's pamphlet "Democratic Poet - Anbar Otin" marked the beginning of a new era in the study of poetry. Commenting on the personality of the poet, the scholar states : " One of the characteristics of the poet is that she chooses important and familiar topics and tries to reveal them in all respects"[14;7]. Apparently, the poet describes the events that take place in society, around her, on the basis of artistic lines, correctly understanding the essence of change. This is what the poet herself writes about it.

Thank you , my guide, I received my education,  
To describe what I saw , I learned a wonderful lesson,  
Teach everyone to speak in their place.[16;60]

In addition to this, the pamphlet provides a more detailed analysis of the poems written by the poet and the work "Philosophy of Black", and summarizes the significance of the poet's works for that period. As a result of his scientific research on this topic, the scientist Anbar Atin defended his dissertation on the biography and literary heritage [15].

In this study, the scientist first provides information about the manuscripts of lyrical and prose works of the poet , the main content , form, style of her creative heritage, the unique artistic and poetic skills of the artist. Analyzing the ideological artistic aspects of the poet's lyrical works , the scholar divides it into two stages:

1. The first period of the poet's work(1895-1900)
2. Anbar Otin – democratic poet (1900-1915).[15;43]

Commenting on the poet's early work, the scholar notes the greatest human emotion in her early poems is the theme of love , and comments: " The feelings expressed in the poems of Anbar Otin are imbued with deep sincerity."[15;45]

Although the first period of the poet's work is not widely covered in the study, it is significant in that it provides information about the artist's early works. In this study the works of the poet

written between 1900 and 1915 are analyzed in more detail. The poet's socio-political views, attitudes to changes in society, ideas about freedom, aspirations for cultural and spiritual life, the role of women in society are reflected in the study of the poet's works.

Although this dissertation is of special importance in terms of a relatively broad study of the poet's work, it should be noted that the interpretations show the influence of the dominant ideology in accordance with the requirements of the time.

Mahbuba Kadyrova's pamphlet "Shoira Anbar Otin" scientifically classifies and analyzes the poet's extensive biography, lifestyle, mental world during the years of illness and poems created during this period according to the characteristics of the socio-political theme. The poet's attitude to the social environment, his views on patriotism, the pursuit of freedom, freedom, justice, morality are studied. This pamphlet is important in that it provides the reader with in-depth information about the poet's entire life and creative activity. [11]

Gulom Karimov's textbook "History of Uzbek Literature" has a special chapter on the literary heritage of Anbar Otin. The scientist studies the biography and literary heritage of the poet. The poet analyzes his work from the point of view of a sample of democratic and moral literature. The literary scholar says: "Anbar Otin, from the very first steps with the ideological and aesthetic foundations of her work, the artistic principles, began to create as a poet of democratic literature"[4;289]. Indeed, the poet was able to show the suffering of the people, the double oppression and the vices of society with great courage in her works.[4] Through this textbook, the poet's work began to be taught in the higher education system. Abdulhamid Jalolov's doctoral dissertation on "The process of development of Uzbek enlightenment literature (late XIX and early XX centuries)" studied the work of Anbar Otin from the point of view of enlightenment [3]. The scholar draws general conclusions by comparing the views of the poet with the views of contemporary poets. The scientific observations on the poet's enlightenment views in this dissertation are of special importance in terms of enriching the views of previous researches with new analyzes, in-depth scientific conclusions.

Lalikhon Muhammadjanova's dissertation on the topic "Enlightenment poets - moral views of Dilshodi Barno and Anbar Otin" explores the philosophical-moral, literary and aesthetic views of the poet [5]. The scholar commented on the role of the poet's work in the literature of the Turkestan National Awakening. This research is of particular importance in terms of showing that the works of Anbar Atin can be the subject of research not only for literature, but also for related disciplines.

Iqboloy Adizova analyzes the Islamic views of such poets as Uvaysi, Nodira, Dilshodi Barno in the article "Awake our hearts, O Lord" and examines the views of Anbar Otin on religious issues [2]. The scholar comments: "The peculiarity of Anbar Otin is that when he criticizes the hypocrisy and ignorance of religion, she targets specific individuals. The poet can purify the purity of religion above her own interests and honor in the way of stability of faith"[2;4]. Apparently, the poet follows in the footsteps of her teachers in terms of the expression of Islamic beliefs and expresses her views on the subject with high art.

Research on the literary heritage of Anbar Otin has deepened in the scientific work of Begali Kasimov. The scholar studied the works of the poet in the context of Jadid literature and Jadid enlightenment, and made important generalizations [12]. The scholar's views on the poet's literary heritage can in a sense be the result of research conducted so far.

Matnazar Pirnazarov in his monograph "Typology of poetic genres (ghazals and hymns in the poetics of the Turkic peoples in the XIX and early XX centuries)" compares the poetic perfection of the works of poets such as Muqimi, Avar Otir with examples of literature of fraternal peoples. analyzes the harmony of the works of Tatar and Azerbaijani literature. At the same time, it reflects on the poet's socio-political views. [7]

Briefly about the editions of creative works. The poet's works were first published in 1963 at the Uzbek State Publishing House of Fiction under the title "Poems". The second completed collection of works of the poet was published in 1970 in "Poems. Risola" was published. In addition to the poetic works of the poet, the collection also includes the work "Risolayi falsafayi siyohon", ie "Philosophy of Black", written in prose. In 1981, Fatima Husainova and Mahbuba Kadyrova published a collection of poems by Zebunniso, Dilshod and Anbar Otinlar. In 1994, Mahbuba Kadyrova published "Dilshod and Anbar Otin. Published a book "Bayozi of Uzbek poets". The collection is especially significant in that Anbar Atin's poems in Uzbek are published in Tajik.

If we take a closer look at the research and current publications that have been created so far, we can see that there are some uncertainties, various assumptions, confusions. The main idea of the poet's works, the social environment of that period, described in the ghazal and "single bytes", the problems of the period are not sufficiently revealed. The author's artistic intent is not really covered. In the existing research, the poet's works are adapted to the ideology of that period, which, in turn, can confuse today's generation, modern readers, and lead to the emergence of unbelievable views on the work of the poet. Just one example. Today, the date of Anbar Otin's death is 1910 (in some publications 1906) in the 11th grade textbook "Literature". Other sources state that the poet died in 1915 and wrote The Philosophy of Black in 1910. Such uncertainties should be eliminated on the basis of clear scientific evidence. Or the fact that the poet's teacher, Dilshodi Barno, studied at the school and got married. Clarifying such differences is one of the most pressing problems facing literature.

The main goals and objectives of the study of the life and creative activity of the poet should be:

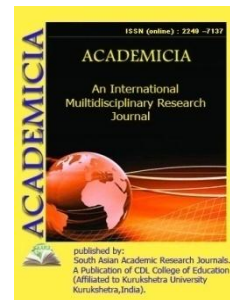
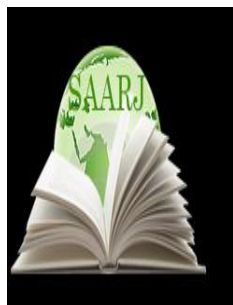
a) re-examination of literary works on the basis of pure literary-aesthetic, literary-enlightenment criteria, based on today's requirements; b) to identify and bring to scientific use the works of the poet, which are still unknown to the scientific community; c) comparative analysis of the texts of the poet's works with the original; g) to carry out thematic classification of creative works and an objective study of the methods of expression of the author's creative intent; d) scientific coverage of the issue of poetic skill in the works of the poet.

Recognizing the great importance of the above-mentioned research and publications of poetic works, it should be noted that the study of Anbar Atin's poetry in accordance with modern requirements, identification and study of lyrical works of the poet in various bayoz, preparation of excellent academic editions of literary works passing on their texts to today's generation is a vital and scientific necessity.

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## LITERARY GENRES

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## ABSTRACT

*History of literary genres, their and polishing. The emergence of different manifestations of souls over time. Major and minor literary genres and their description. The episode is full of interesting generalizations, important ideas, and vivid expressions. When left unmanaged, they can be left astray and lose the right path. At the same time, it quickly spreads from mouth to mouth and becomes more polished. As the epic finds a picture of great historical events that decide the fate of a people, a nation, a tribe, its protagonist is considered history. In the epic, the event dominates and manifests itself in the form of "nature's own", "the will of fate."*

**KEYWORDS:** Genre, Epic, Epic, Novel, Short Story, Narrative, Poem, Ballad

## INTRODUCTION

Literary genre (French "Genre" - type, gender) is a way of depicting the works that have emerged in the course of literary development, compositional structure, methods of expression, artistic means, the scope and scale of coverage of life events. The problem of the literary genre is so relevant that "ignoring the issue of genre deprives art theory of a true philosophical and sociological relationship and leads to a preoccupation with stylistic details. Genres have been enriched and enriched by various changes during the development of the literary process (including the scale of the ancient epic to the ocean, the modern epic is the world in the

miniature). In line with social and spiritual development, some (e.g., ghazals in the history of our classical literature) took the lead, some went out of consumption (e.g., a problem in twentieth-century Uzbek literature), and some (e.g. especially in the epic round, which has appeared in our century literature (such as sonnets, novels, tragedies). This feature is evident in the genres of epic, epic, novel, short story. "There are good reasons for genres to shrink in this way. First of all, this phenomenon is associated with changes in people's lifestyles. Epic genre types. The genre of all the works, which were built on the basis of priority, such as storytelling, created an epic genre. Therefore, epic, saga, ballad, parable, fairy tale, story, short story, narrative, novel, short story, poem, essay, feuilleton, essay, myth, legend, legend, travelogue, love letter, travelogue, "hamsa", word of wisdom, genres such as chopchak, marsiya, hymn, metal, aphorism are the property of the epic. We can divide them into several groups. Major genres of epic The largest genre of epic (Greek "epos" - word, speech, story) is the epic (Greek "epopia" - a set of legends, songs). The epic is the life of a nation only in its infancy, when the history of a nation is only a myth when it is not yet divided into two opposites - poetry and prose, when its understanding of the world consists only of religious ideas, its power and pure activity about can only appear in times when heroic victories appear. As the epic finds a picture of great historical events that decide the fate of a people, a nation, a tribe, its protagonist is considered history. In the epic, the event dominates and manifests itself in the form of "nature's own", "the will of fate." It cannot be changed by man, but it is subject to man's will. Homer's Iliad and Odessia, the Indian Mahabharata and the Ramayana, the Kyrgyz Manas, and the Uzbek Alpomishi are proof of this.

As folklorist Bahodir Sarimsakov points out, a series of lyrical-epic songs about events related to the heroism of a historical figure serve as the basis. Later, these songs merged into an epic, forming a single epic, that is, the memory in the song became obscure and became a fabulist (epic). Alpomish as we know it is in the form of a classic epic. B. Sarimsakov proves that before it took this form, the historical song - archaic, epic - international, ideal (plot) - had to go through the stages of the classical epic process: "The first stage consists of the ancient form of the plot, which we conditionally call as an archaic (old) epic. At this stage, the protagonist is the chief of the tribe or clan, who in his actions protects the interests of the tribe or clan, protecting it from enemies. Prevents breakage. He brings heroism to other countries and seeks to consolidate the social system through marriage. Therefore, the plot of the archaic epic is concise - it consists of one part. If we compare the ancient epic to the ocean (imagine the intensity of its waves), the modern epic is like a river. The largest genre of modern epics is described in the novel as a "miniature world." "The epic of our time is a novel. All the basics of the epic, all the important features are in the novel, the only difference is that in the novel other elements, a different landscape prevail. Epic researchers EA Karimov and GD Mopassan say that "a philosophical concept of the novel world cannot be a novel without a work," and that Uzbek novelism began in 1922 with A. Kadyri's novel The Last Days. "Integrated philosophical concept of the universe", "Last days" (A.Qodiriy), "Sarob" (A.Qahhor), "Blessed blood", "Navoi" (Oybek), "Starry nights", (P.Kadirov), Only in a few novels such as "Ulugbek khazinas" (O.Yakubov), "Girdob" (O.Usmanov), "Lolazor", (Murod Muhammad Dost), "Otamdan qalغان dalalar" (Uncle Murod) 'z reflected. The depiction of epic characters in the novel ends in two books - dialogue ("Connected Worlds", Hojiakbar Islam Sheikh), if it consists of three books - trilogy ("Horizon" - "Forty-Five Days", Said Ahmad), if there are 4 books If it is a tetralogy ("Black Sea waves", "Winter wind", V.Kataev), if it reaches five books, it is called pentalogy. A large-scale work,

depicting the world in the midst of passions, rich in exaggerated adventures, romantic painting - epic (Persian - Tajik word meaning: a story written in verse or prose, poem, epic: adventure) , past, referred to as events.)

In the Uzbek folklore, only one classification of epics can prove the diversity of epic genres and forms:

Heroic epics ("Gorogly", "Ravshankhan")

Warfare ("Yusuf and Ahmad", "Alibek and Bolibek")

Historical epics ("Shayboniynoma", "Jizzakh uprising")

Romantic epics ("Malikai ayyor", "Rustamkhan")

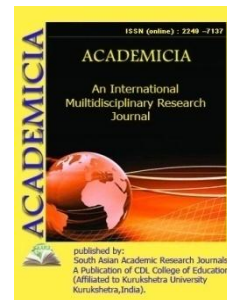
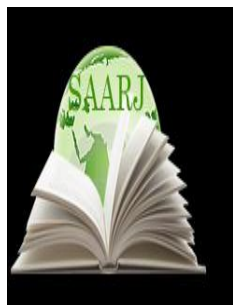
Book epics ("Farhod and Shirin", "Tahir and Zuhra")

Story - (Arabic word for "epic work that tells a story or legend, a work of art that is simpler than a novel in terms of plot complexity"). Examples include the story of Ibrahim Adham, the story of Amir Akhtam, the story of Bobo Ravshan, the story of Rabguzi, and the fourteen stories about Hazrat Ali. narrative - (Russian word means story, narration), in which the scope of life is narrower than the novel, the breadth of the story, and accordingly the plot and composition are simpler than the novel, more complex than the story. Gafur Ghulam's "Memorial", "Shum bola", S. Ayni's "Death of Sudkhor", Abdulla Qahhor's "Sinchalak", Utkir Hashimov's "World Affairs" Nemat Aminov's "One Century Story" are mature examples of the narrative genre. In a poem (Greek "poiema" - creation), life and the human heart are discovered in an epic (event) and lyrical (experience, emotion) way. In the poem, the combination of epic and lyricism creates a holistic lyro-epic flow, reveals, analyzes and expresses the spirit of the life events and the power of the heroic character. "Zaynab and Omon" (H.Olimjon), "Tashkentnoma" (M.Shaykhzoda), "Surat" (Mirtemir), "Rebellion of souls" (E.Vakhidov), "The way to heaven" (A.Oripov) "Khalil Sultan" (U.Azim). Minor genres of epic Ballad - (derived from the Greek word "ballarc" from the French word "baller", meaning: 1. Imitation of sound, for example, marash, 2. Dance) is the main feature of the genre - an unexpected plot (event) it is a work dedicated to the ending with an unexpected finale, the dramatic expression of the heroic soul's experiences and spirit. The relationship between these two (internal rebellion, secondary) must not be disturbed, and lyricism must live within the event. These are the main laws of the epic species. The most famous works in the genre of ballads are by Goethe, Kamenev, W. Hugo, V. Scott. A parable is an epic genre that depicts an event in allegorical (allegorical) and symbolic (symbolic) imagery, revealing real-life and human appearances, character traits through satire, satire, laughter, and anger. Because the parable was founded by Aesop, it is also called Aesop: the language of parables is the same as Aesop's fables. After Aesop, Lafontaine (French), Krylov (Russian), Gulkhani (Uzbek) raised this genre to a new level. The parable is often created when there is no opportunity to tell the truth about events and people, and these truths are symbolically (veiled). latifa - (Arabic - delicate cute) is the smallest and rarest "story" ("Zarifa", "Ajiba"), based on the sharp observation of the people. in which an episode of the shortest form of an interesting story is told in a prose way. The episode is full of interesting generalizations, important ideas, and vivid expressions. When left unmanaged, they can be left astray and lose the right path. At the same time, it quickly spreads from mouth to mouth and becomes more polished. Another important feature of the anecdote is that the conflict in it has two poles (positive and negative), it

is bright, bulging, and leaves no room for the notion that "it can be different." A vivid example of this can be seen in the anecdotes of the Gabrovo people (Bulgaria), the Shilde people (Germany), the Qazvinis (Iran), the Shirins (Bukhara), the Altyariks (Fergana), and the Khans (Khorezm). The smallest version of the anecdote is called "handa" in the press. Laughter suddenly brings the "cream" of an episode to its climax and brings it to a humorous resolution through dialogic speech. Story - (Arabic word, meaning: 1. Verbal description of something, details. 2. A smaller work of art written in prose) - Izzat Sultan rightly points out that from the event that is included in the content of the anecdote a larger but smaller adventure than the one that gives meaning to the story, often depicting an episode in a person's life. By the way, "it is a novel divided into thousands of parts - an episode from the endless poem of human destiny - he chooses such an event and expresses it in a narrow frame of his sermon." (V.Belinskiy). The most concise version of the story is called a novella (Italian "novella" - novelty). Abdullah Qahhor's works, such as "Pomegranate," "The Sick," and "The Thief," are classics because they fully meet the requirements of the story genre. Literary genres have come a long way over the years. While some genres are on the rise, many genres are emerging. This process will continue for centuries!

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## THE CONCEPT OF THE LITERARY ENVIRONMENT AND ITS MAIN SIGNS

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### ABSTRACT

*This article examines the scientific-theoretical basis of the concept of the literary environment and its study by the point of view of regional, chronological point of view. Historical and artistic significance of the literary process was revealed through the literary and artistic works of the creators. The eventualization and development of the concept of the literary environment has been scientifically proven. Literary atmosphere was considered as an object of comparative typological analysis of territorial-artistic signs on the scale of Tashkent, Kokand and Khorezm regions. Scientific and theoretical concepts were given about the occurrence of the literary environment and the literary process, the schools of literature.*

**KEYWORDS:** *Literary Environment, Literary Process, Literary Flow, Literary Direction, Literary School, Kokand Literary Environment, Tashkent Literary Environment, Khiva Literary Environment, Artistic Interpretation And Analysis In Literary Studies, Genre And Type, Form And Content In Literary Works, Davriy And Regional Signs Of The Concept Of Literary Environment, Types And Varieties Of Poetry.*

### INTRODUCTION

Literature - breadth. In this breadth, literary works, which are the product of human thinking and artistic and aesthetic views, come to the world. And the literary works that come to the world, in turn, are fed from the literary environment created in this latitude in terms of form and content. And the main task of literary works is to focus on the spiritual rise of society in the times of influence on the feelings, psyche, consciousness of people. Literary medium dream-occurs

under the influence of large poets and writers who live and work in a certain place. The emergence of a literary environment is certainly a link with the activities of large creative people, with the creative schools they have created. Creative conditions have been prepared, the literary round, which served for the perfection of the creator. It is no secret that the literary environment is more developed in the capital cities, since the environment for the creative process is one of the strongest influencers. The influence of the Khirat literary environment on the creativity of Alisher Navoi, the Khiva literary environment on the creativity of Ogahi, the Kokand literary environment on the creativity of Amiri is an undeniable fact. Even today the literary environment, formed in the time of dynasties and khanates, as it has its leaders, has grown magnificent figures whose works have not lost their significance. In this regard, the literary environment is appropriate to understand the dream in two different meanings: in a narrow sense – the adult under the influence of the creative environment created in the family of the creator, in a broad sense, it is possible to understand the full-fledged creative atmosphere, which arose under the influence of great poets and writers who worked in a certain period, as well as under the patronage of representatives of the dynasty or rulers who ruled at that time, formed several literary schools within themselves, concentrated literary directions and literary currents.

The literary environment can be approached on the basis of two elements: 1. Periodic; 2. Regional. By periodic point of view, if one understands the literary environment created during the most ancient period literary monuments, from the literary environment to the period when the period of independence reflects the literary environment, the literary environment created at the facility of the creative people, from the territorial point of view, the issues of originality, creative. In particular, like the literary environment of Tashkent, Khorezm, Samarkand, Kokand, Andijan and Bukhara. Because it is connected with the period in literary studies, and the territorial signs indicate in what way the literary environment of the historical period in which the work was created. Therefore, there is little influence of the literary environment on the formation of Uzbek literature or creative people who have added great importance to the development of world literature, or the people of the Pen who are loved and read in smaller circles. No matter how talented the writer is, in the formation of his worldview and the perfection of his artistic skills, the importance of not only the educational institutions in which he studied, but also the literary environment in which he was a genius is great. We see that the schools of literature are formed mainly from the point of view of the commonality or closeness of the creative-aesthetic principles and according to the regional character. For example, the School of Spencer in English literature (XVII), The School of natural in Russian literature (the beginning of the XIX century) was formed according to the aesthetic principle, the schools of Tula and Ryazan were built on a regional basis. The formation of a literary environment is possible even if two similar characteristics are summarized.

In this regard, schools of literature – as a stream of literature in a broad sense, while the flow of literature is understood as related to the direction of literature, their differentiation also serves to determine the fundamental essence of the concept of the literary environment. Literary schools are literary streams that represent a phenomenon within the direction of literature, a certain ideological-aesthetic view, a group of creative people who programmatically adopt creative principles – a view of the literary direction in the literature of a certain period, a peculiar variant, the generality of artistic aesthetic principles, a literary direction and under the action is understood as a group of writers who are creative, while the literary direction is directly related

to the category associated with the literary process, the principles of artistic reflection of life, the concepts. So, in our opinion, the concept of the literary environment is understood by combining all the above elements in itself, combining the elements of commonality and particularity in the works of writers and creators, with the symbols of similarity and contrast from another historical era environment or from the literary environment of one territory. One literary environment and the second one interacts in the literary process with the literary environment, takes template or challenges. As a clear proof of this, in the period of Muhammad Alikhan in the Kokand Khanate there was an aspiration to resemble the era of Hussein Baykaro and Alisher Navoi, which was the period of awakening of the Timurids' temple in the early 19th century. Half a century later, the Khiva literary environment entered the same path, and the Khiva literary environment and the Kokand literary environment competed in the same way. In 1818-1822 - th year in the Kokand literary environment, more than 70 poets gathered "Complex poet" ("Majmuai shoiron") bayoz was formed. In Khiva more than 30 works of poets were composed of "Madjumayi shuaro'i Firuzshohiy" bayoz in 1908. Poetry is such an art that the creator creates illusory concepts and connects impressive comparisons through this art. In this way, for example, he changes the small to the big, and the big to the shape, reflects the beauty in a lush dress, and the ugly in a beautiful image. With the art of inspiration provokes anger and emotional energy, as a result of which sadness or resentment appears in the nature of people. And this serves to keep the universe in order in the activities of the great ones. The literary environment created under the auspices of Amiri of Kokand Khanate also served as development and creative support of poets. It can be seen that the literary environment in the body in the sets of periods, the dream is also torn in terms of coverage and has its own impact on the literary process.

Naturally, the socio-historical conditions in each territory, the centuries-old cultural and literary traditions, the level of artistic and aesthetic views had a certain impact on the birth and development of literary thinking. In particular, in the formation of the literary environment and cultural life in the Kokand Khanate, the imitation of the Timurid period is evident. This can be seen on the example of the literary environment and the manifestations of literature, which were formed during the reign of Umarxon, which operated under his leadership, in the forms and genres of the created works. Especially during this period, such talented female poets as Akmal, Aniriy, Bakikhontura, Gulkhani, Makhmur, Muntazir, Nizami Khokandiy, Nadir, revealed Muhammad Avaz, Pisandiy, Fazli Namangani, Gazi and a number of well-known and famous Dilshad otin, Zebunso, Zinezhun, Mahzuna, Mushtiyy, Nadira, Uvaysiyy also created a number of pens in the Uzbek and Persian-Tajik languages.

In Khorezm, the picture of Russian culture, literature, exposure to European science and education, their creative application to local conditions continued slowly. In particular, it is explained by some variations related to updates in the press, theater, musical arts, which are directly related to artistic creativity. The literary movement in Khorezm is more enlightened: the king of war wrote poems under the pseudonym "Feruz", narrated around Muhammad Rahimkhon II. Muhammad Rahimkhan Soni-Feruz (1844-1910) brought the literary atmosphere to the arena in the palace and Khanate. In one of his works, the poet and historian Bayani writes about the fact that the king and the poet gave way to the "method jadid" in the time of Feruz, brought stones to Khiva much earlier than the Russians came, the reading was intensified.

During this period, such artists as Kamil Khorezmiy, Muhammadrasul Mirzo, Muhammad Rahimkhon Feruz, Ahmad Tabibiy, Bayani, Avaz Otar Muganniy were created in the Khorezm

literary environment. Among the creators, Kamil Khorezmi writes that the Khorezm literary environment in hisscoundrel "Tashkent" settlement is based on tradition, The Tashkent literary environment is updated, developed (modern ) style. In another poem by the creator, points out that in his poetic skill of Muhammad Rahimkhan Feruzfar superior to Umarkhon and the his palace poet Fazli Namangonians.

The Tashkent literary environment is an integral part of centuries –old Uzbek literature, and it has a special place in the history of Turkistan literature and culture at the end of the XIX-early XX centuries. In this period, the Tashkent literary environment was one of the centers of the enlightenment movement , and in this region, such creators as Karimbek Kamiy, Gulshan, Ahkar, Almaiy, Abdulla Avlani, Tavallo, Miskin, Khidkiy, Sidkiy Khandaylikiy, Abdulla Kadiri took part in the literary process in the region.

In this period, the literary and aesthetic views of the creators, Tashkent came into the world influenced by the literary environment. In particular, during this period, literary and cultural life in Tashkent at the end of the XIX — beginning of the XX centuries was mainly spent in "Koshkaldash", "Beklarbegi", "Barokkhon", Abul Gasim, Khoja Ahror madrasahs, as well as some chaykhana, shops and apartments. As we have already mentioned, another element in the occurrence of the literary environment is the leadership, that is, the establishment of literary schools. We can cite this school, which was established in the Kokand literature environment as an obvious proof of the schools of literature. Schools of Kokand are separated for girls and for boys. For example, the famous poet Dilshoda opened a school in Kokand. She wrote about his school activities as such: "My interlocutors and girlfriends were talented poets of wise girls. Fifty for a year I was a schoolboy , and in the year I was an average of 20 to 30 students, I taught from literacy to eight hundred and ninety girls, almost a quarter of whom were capable of poetry, were poets and wise and wise people of their time".

The literary environments in the regions that emerged in Turkistan at the end of the XIX – beginning of the XX centuries influenced the literary and artistic works created at that time in regional and davriy regional terms. In the works of art created in this period , it is possible to see relatively literary criticism, the introduction of period politics into the traditions of creativity, the bringing of the spirit of innovation into the mystical literature, the purity of the language used in the traditions of creativity, the development of worldview, literary –aesthetic considerations. Works created by artists at the end of the XIX –early XX centuries differed in different aspects from classical literary works. In particular , in classical literature, the attitude of form and meaning acquires a special meaning both in the interpretation of religious mysticism and in the literary –stylistic direction. Therefore, in classical literature, the band-instruction, the scientist and the man, the divine and figurative work are united, while in New Literary environments the spirit of development is united, because in this period the literature circle and the rise of schools in Kokand, the people's life in Khorezm and the entry of tashma, the activity of scientific centers in the Samarkand literary we can see that he grew up. As a vivid evidence of this, we can see examples of the poems of Avaz Utar "Language" ("Til"), "School" ("Maktab"), the play of Abdulla Kadiri "Happiless bridegroom" ("Bakhtiz kuyov"), the stage works of Abdulla Avlani intended for the theater, as well as educational textbooks, the "Yorkinoy drama" of the Cholpon, The Revenge of Kamil Khorezmi "Tashkent" and several works of Fazli Namongoni written in the spirit of renewal. We can get acquainted with the spirit and politics of the period through the centuries of a number of prominent creators: Gulkhani, Uvaysi, Amiriy,

Nodirabegim, Dilshad otin, Avaz Otar, Kamil Khorezmi, Ahkar, Ogahi, Munis and others. By this period, both in the varieties and types of poetry, and in the genre and styles, there were renewal and growth, as an example, the parable genre developed. Gulkhani made beautiful proverbs of the parable genre. All creative conditions have been prepared, the only goal of the people of creativity, who have reached the literary circle that served for the perfection of the creator, was to be in an active attitude to reality in our literature, to interpret the upbringing of labor and willpower, to build new forms of life. The content of the literary-aesthetic views of the creators, who were fed up with the influence of a literary environment during this period, embodied their observations, impressions, thoughts and life experience in images, paintings and characters, embodied the reality that he saw in the world of imagination the paintings, images, people, characters, presented by him without losing their artistic charm, were filled with his personal experience, impressions and wealth of knowledge; with the addition of the experience of the bookstore with creative experience, as a result of harmony, artistic truthfulness was reflected in the individual confidence of the word art, which determines the influence of literature on a person.

In his book titled "Bir edebi muhit olarak Ankara 1923-1980", which provides information from the Turkish literature environment, Turkish creator Necati Tonga writes about the variability of literary works in which the modern environment prevails in this period, while in the Azerbaijani literature environment there is a creative environment fed by the ideas of independence in this period. As a result, one of the main characters showing the novelty of Uzbek literature at the end of the XIX –beginning of the XX centuries, genres and forms that had not been observed in any century before, were adopted from the eastern and European cultures, and genres such as novels, short stories, plays entered. In a word, Uzbek literature came to this period. In it, the scientist, man and his life began to be interpreted not in connection with theology, but on the basis of the laws of science, natural science in existence. Updated image and style drawings, analysis and interpretation in the works. The reason for such radical deviations in literary studies is of course seen by the literary school, which is directly related to the literary process and is detailed in the influence of the creative environment. It is difficult to analyze in a homogeneous form all the works of these creative people who breathe the weather of the literary-scientific environment created at the end of the XIX-beginning of the XX centuries, therefore, socio-political changes, in turn, had a different impact on the worldview of the writers.

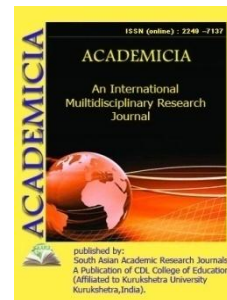
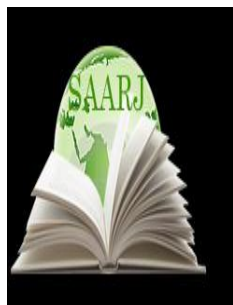
The issue of the literary environment is interpreted differently by specialists. The concept of a literary medium is not a novelty to literature, but to some extent studied by literary critics until today. In particular, the academician on the study of the concept of the literary environment, the scientist Aziz Kayumov, who served in Uzbekistan, "Kokand literary environment" (XVIII-XIX centuries) (1961), "Andijan literary environment in the Babur period" (2009), doctor of Philological Sciences, prof. N. Karimov "Abdulla Kadiri and Tashkent literary environment", Necati Tonga "Bir edebi muhit olarak Ankara 1923-1980" a book entitled information from the Turkish literary environment, S. Khalimov "Uzbek and Tajik literary relations in the second half of XIX and early XX centuries", "Some features of Samarkand literary environment at the end of XX century", Volkova E. V. "Literary school / Introduction to literature introduction", "relations, and vzaimodeistvie national lit-tour. Materials of the discussion. M., 1961; Lomidze G. A sense of great commonality. T., 1978; Zhirmunsky V. M. Comparative lit-conducting. East and West. L., 1979, Sadri Sadiyev's monograph" Samarkand literary environment in the mirror of

history", A.S.Erkinov "Traditional and modern environments". Kamil Khorezmi's revenge on Tashkent", Zebo Saidjonova published a number of scientific articles entitled "The atmosphere of Jadidism and Khorezm literature".

However, the literature environment requires a little study of chronological analysis from the point of view of the periodical point of view, as well as information on the regional and comparative-typological features of one literary environment with a second literary environment. Therefore, the comparative-typological objective study of the literary environment in terms of its development and improvement, period point in the context of the regions to clarify some of its controversial aspects, to re-evaluate and understand the socio-aesthetic essence on the basis of the ideology of independence, to study the existing reflections on the literary process of that period, to study, we tried to reveal the influence of the creators on the existing literary environment or, on the works of poets and writers of the literary environment.

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## THE ISSUE OF ATTITUDE TO THE CREATIVITY OF FITRAT

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### ABSTRACT

*In this article we will talk about the history of the study of Abdurauf Fitrat's creativity, the mature manifestation of Uzbek Jadid literature, the attitude of the scientist, professor Begali Kasimov to the creative heritage of Fitrat, his scientific research. The sides of Begali Kosimov, such as jadidist, archivist, textshunos, manbashunos, Fitrathshunos, his approach to literary and critical views as an aesthetic phenomenon, have been thoroughly analyzed.*

**KEYWORDS:** *Uzbek Literature Of The Period Of National Awakening, Jadidism, Literary - Critical Views, The Study Of The Creation Of Nature, Text, Source, Archivist, Literary - Critical Views, Aesthetic Phenomenon.*

### INTRODUCTION

In the beginning of the XX century, the movement of jadid, which had great power in the literature of the Uzbek period of national awakening, became a huge social movement. A scientist who specially studied the creativity of the participants of this action and discovered hundreds of poets and creators. In his research, Kosimov examines and analyzes the economic, spiritual, cultural life of the period in which they lived.

The mature manifestation of the jadids highly recognizes Fitrat as "no one has carried the word and the Union to the status that he brought, he was not only one of the recognized figures of literature and culture, but also of politics". Abdurauf Fitrat formed a society of "Young Bukharians", formed from Buhari-grown, nation-sacrificed, and became one of the famous representatives of the Central Asian accelerated movement, according to the mention of the professor B. Kosimov: "One of the founders of the new Uzbek literature is a recognized playwright, prose, poet and brave scientist".

In the 20s, the work of Fitrat was highly appreciated, in particular, Haji Muin translated the work "Debate" ("Munazara") printed in 1912 in Istanbul into Uzbek and published it in the "The

newspaper of the Turkistan region". In 1916 in the newspaper "Turkestanskije Vedomosti" V.B.Andreev's review about him was printed.

In the early years of the Shura period, academician Samoylovich gave a special assessment of the activities of the Fitrat and expressed his attitude in a number of his articles. Literary critic and critic AbdurahmanSaadiy, NazirTurakulov, Vadud Mahmud, etc.expressed a special attitude to Fitrat and his literary heritage. In their time, they evaluated the literary views of the Fitrat from the point of view of space and time.

Both until independence and during the years of independence, in the research of professor B.Kosimov explained that "the attack on the Fitrat peaked in the second half of the 20s," and explains that the negative attitude to his creation was the starting point of the resistance to the activities of all the jadids: "but when the fight against the Fitrat began, the first target was the Fitrat and his works. In the second half of the 20s, the attack against the Fitrat peaked".

According to the scientist, the study of his creativity can be identified as follows: First of all, his books "Samples of the oldest Turkish literature, materials for the history of our literature" and "Samples of Uzbek literature" became the first target of the poets. Shura ideologues released a janjal around this big book. They condemn Fitrat with a number of political blames, such as "panturkist", "panislomist", "opportunist". In response to them, Fitrat publishes in the press an article "non-adherent gajars". This is about the literary critic H.Boltabayev also wrote in the book "Fitrat and Jadids" in the style of an open letter this answer is written in the article in fact in the literary criticism of the 20s, reminiscent of the same verynigilistRodov in Russian literature. For the first time in the history of Uzbek literature J.Boybultayev's consistent scientific system of "Samples of Uzbek literature" textbook - chrestomathy established the nature of both written to him and began to exaggerate the Hoshim Otajon".

Secondly, Hamid Alimjan's article "bout the literary creation of the Fitrat" was analyzed on the subject of the ideology of the Soviets and forcibly put into the scheme. According to this article of B.Kosimov,J.Boybulatov strengthened his position.

Thirdly, the work of "Resurrection" was atheistic interpretation and for many years served the ideology of Shura. The name Fitrat became less common in the second half of the 60s.According to prof. B.Kosimov, this is due to the fact that these years are mentioned as a period of "warm". Basically, the analysis under the old ideological pressure was done for criticism. The famous Russian literary critic Belinskyquot:"Theory is a systematic and harmonious unit of the laws of beauty: but it has one disadvantage side: it remains within a certain period of time, and criticism continues without stopping, goes onward, collects new materials for science, new data. This is aesthetics in motion, - " he says. Indeed, the literature - critical analysis of the works of Fitrat brings its true evaluation with the passage of the period. Although in them the spirit of the politics of the era of more socialism is felt, in fact it is an aesthetic process. The approach to literary-critical views as an aesthetic phenomenon leads, especially in the views of BegaliKosimov.It will focus on the new discovery of the creation of the innate, an in-depth analysis of its artistic, theoretical and scientific foundations. In particular, when analyzing the lyrics of Fitrat, experts believe that the number of Uzbek poems is low, but the ideas and thoughts depicted in them are the troubles and dreams of the whole nation, saying that from the poems of the category "Grief of the land", the collection of patriotism "Sayha" in all characterizes the image of the poet as a Creative, his poetry believe us". Even in romantic -

intimate poems there is confusion, disappointment. The hope for this independence is that "the Shura is a troubled, agonizing thought about the policy of repression."

"The new interpretation of the life and creation of the Fitrat began to be seen from the middle of the 70s," the four said. E.Karimov's book "Development of realism in Uzbek literature" took serious steps. The first reviews revealed that in 1983 year in the book "Literary Heritage and modernity" Ahmad Aliev came to look at the creation of Fitrat. The scientist admitted that this situation also causes Aliev to have negative discussions.

From the fifth, it gives the opportunity to approach the works of Fitrat somewhat objectively in the period after 1985 year. Well-known literary scientists Izzat Sultan and Saladin Mamajonov published the article "Two forms of our culture" in the newspaper "Literature and art of Uzbekistan" in 1988. In it, they drew attention to the fact that the study of the creation of the Fitrat and the worthy evaluation are one of the tasks that cannot be delayed.

From sixth, Hamidulla Boltabayev in 1990 year in the article "Unknown Fitrat" compiled and published the list of works of the first famous writer in the magazine "Youth".

The scientist wrote that the true factual study of the creation of the Fitrat moved to the scientific and planned basis after independence. In the period of independence, the protected dissertations about him are shown as follows:

- H.Boltabayev "Uzbek literature of the XX century and scientific heritage of Fitrat" (T.,1996);
- I. Ghaniev "Poetics of Phytrate dramas" (T.,1998); On philosophy:
- B.Ergashev. From the history of the formation and development of socio - political ideas of intensity. The ideology of the young steamers, T.,1993; On jurisprudence:
- D.Toshkoziev. The second half of the XIX century – the first quarter of the XX century the main directions of political and legal thinking of the peoples of Uzbekistan, T., 1995.

In the study of the literary heritage of Fitr, in particular, the publication of his selected works in 2000 year became a huge phenomenon. H. Boltabayev's "Abdurauf Fitrat", "Fitrat and intensity", I. Ganiev's "Fitratology", "Fitrat's skill in creating tragedies", "Fitrat, respect, creativity", among such monographs as "Abdurauf Abdurahim Oglu Fitrat" by Aliev, professor B.Kosimov's book "Maslakdashlar", "The period of National Awakening Uzbek literature" confirms that the seasons about Fitrat are Fitratist. The services of the scientist are of some importance in restoring the state of translation, in deep learning. For example, it records some information that is not found in other studies that are interesting about the Fitrat.

"From the distinguished data of Haji Nematulla it becomes known that his father was a man called Abdurahimboy and he was engaged in "sarroflik" - money-changing activities. "Sarrof" is explained in dictionaries as "money grinder", "money exchanger"... It is not surprising that the author of "Tazkiaratush – shuaro" also called him "sarrof" as his father, introduced him as "Haji mulla Abdurauf".

The Professor even mentions from 37-year-old forensic investigation data that Fitrat studied in Istanbul in the years 1909 - 1913 in "Dorilmuallimin", but it was said that he studied in Istanbul in studies about Fitrat, although no one cited the source. Say, B. Kosimov is an archivist, manbashunos scientist. Each will prove his opinion through archival materials. In Istanbul, the

brothers Osmankhoja and AtokhojaPolatkhojaevs and MazharMakhzum bring together their fellow countrymen called Mukimbek."Fitrat was the most talented and the most talented of these students."While studying the intensive activities of Fitrat in Bukhara, the jadids were divided into two in Bukhara - the right and the left,abduvahidBurkhanov was the head of the right, Fitrat was the head of the left. "The young Buhari's" dream of independence and democracy was described by Fitrat as "Grief of the land".Even 27 November night is called "our national lailatulkadir". The idea of the constitutional monarchy was based on the project of reforms prepared by the Fitrat for the "Young Bukharis", professor B.Kosimov notes that bundaFitrat paid special attention to religion and Shariat. He notes the importance of religious knowledge, Islamic thinking in the socio - political activities of the Fitrat.At the opening of the Jadid schools and textbooks created for them, including textbooks such as "Mukhtasar Islamic history"(Samarkand, 1915), "Oku" (1917, Baku), the views of FayzullaKhujaev, who provided material assistance in the emergence of these books, even if they had not been reached before us, will tell that these works were highly appreciated in their period. In his works such as "Leader Salvation", "Family", "Begijan"," Mawludisharif"," Abo Muslim", he said that he reacted correctly to the views of Khujaev, "strongly criticized the existing system, uncovering all its shortcomings without fault, exposing the emirate's rotten system."Because the leading representatives of the accelerated movement aimed not only at the existing government, but also to put the people on the right path with new ideas, completely against the self - consciousness of officials in the society, narrow and outdated opinions of religious fanatics, uneducated and completely against the worldview of the people who without knowledge.

Professor B.Kosimov said that after the February Revolution, Fitrat was fully entrenched in political affairs, and in March 1917 he found refuge in Tashkent among the "jadid" youth, which was a truly radical turn in the work of Fitrat.The Tashkent environment has created conditions for the cultivation of nature with culture and spirituality. He taught language and literature at "dorilmuallim", which was first opened at the school in Khadra, and then at the Muslim dorilfununi in Turkestan. In 20s he is a translator at the embassy of Afghanistan in Tashkent. So, Fitrat was an interpreter and orator was a creator. In particular, his creative activity in Tashkent can be divided into the following categories, based on the research of the scientist:

1. One of its largest services in Tashkent was the establishment of the "ChigatoyGurungi" society. This organization is worth noting that B.Kasimov is not an Uzbek language and a literary critic, but has begun studying the history of formation and development of Uzbek culture in general on the basis of a new, modern science. It was not surprising that the organization of the "spelling gang"under Society was formed."
2. In cooperation with Sh.Rahimiy and Q. Ramadan, the textbook "Mother tongue", the educational manual "ways of agreement", the booklet "Navoi's opinion about humanity" were created during this period.
3. Such famous works as "Oguzhon", "To love sincerely", "Indian dissidents"such famous works as well as the work "Timursaganasi", whose fate was unknown until now, were also "important" works for his time.
4. Soon the return of Fitrat to Bukhara was on the proposal of the head of the Government of Bukhara FayzullaKhujaev.This is about professor B.Kasimov says that he was the minister of public education in 1921 year, then the minister of Foreign Affairs and working in various other tasks, he opened an Eastern music school in Bukhara in the same year and even gave his home to

the same school. Such self-sacrifice and generosity was a high virtue inherent in the rapid creators. Under the leadership of Fitrat, a scientific society is formed in Bukhara and prepares the "history of Bukhara arch" manual. In 1921, the Uzbek language was declared the state language in the Republic of Bukhara. State Theater is formed. Mannon Uighur and Abdulhamid Cholpon were invited from Tashkent. Unfortunately, these actions did not please the center - Turkkommission. In 1923 year the political office of the Central Committee sees the "Issue of Bukhara". In the research of B. Kosimov noted that F. Khujayev would tell Fitrat that he was in the process of mitigating his punishment. "Because Fitrat called Fayzulla Khujayev "Eshonjon", "Our pir", "Our emir", and he, in turn, appreciates the famous writer as a living classic, sincerely felt the need for his nation and society. Therefore, the head of the Government of Bukhara made every effort to keep the famous writer. "Even to mitigate the situation, he mentions that he met Fitrat with Stalin. This information was recorded in the archival materials of the judicial investigation documents. With the efforts of the aspiring scientist, it is possible to penetrate deeper into the life and creativity of Fitrat. Because the scientist noted that Fitrat was famous not only as a man, but also as a revolutionary, political figure, one of the ideological and organizational leaders of the Bukhara revolution, unfortunately, his socio - political activities have not yet been studied in full. Subsequent years of slander and punishment on the Fitrat did not break his spirit, but, on the contrary, with the Will and courage inherent in the great, in 1924 year in Moscow Lazarev was engaged in scientific activity at the Institute of Oriental Languages. In the studies of the professor B. Kosimov, as a result, he achieved the status, it is possible to develop that Fitrat is a clever literary scientist. In the literary views of Fitrat, who has achieved the analysis and research of the roots of the masterpieces of our rich and ancient classical literature, one can see aspects similar to the views of world literary scientists, including Belinsky. For example, if Belinsky enriched Russian literature and theory through articles such as "Hero of our time", "Separation of traineeship into types and types", "Reflections and reflections on Russian literature", Fitrat gained attention and recognition as the leading specialist of his time in the theory of Uzbek literature through his books and researches "The oldest samples of Turkish literature", "Samples of Uzbek literature", "Persian poet Omar Hayyom", "Rules of literature", "About Aruz". Begali Kasimov commented, " He identified the sources of Uzbek literature, covered historical development, studied literary currents, schools, their representatives. During his reign, fame spread throughout the world and, with the passage of times, he sought, rediscovered the legacy of dozens of poets, which were forgotten throughout history. From Afrosiab-Alp Er Tonga March to Yassawi, Yoseph Khos Khojib, from Masrab to Umarkhan, his contemporaries to Elbek and Cholpon. The new Uzbek science of literature laid the foundation stone."

Hamidulla Boltabayev, who studied in depth the creation of Fitrat, said that he entered artistic creativity through poetry, saying: "The collection of "Sayha. National poems" quickly spread not only in Turkistan, but also in Turkey, Germany, the central cities of Russia, giving readers "Such a powerful effect as electricity (S. Ayni), " he said. Begali Kasimov also admitted in his book "Colleagues" that Fitrat was very busy from the "Young Turks" revolution in Turkey and was engaged in "intense artistic creativity". "Also before he went to Turkey, he was known for literary circles with his poems. Even Nematulla Muhtaram included them in the tazkiria, which was founded in 1903-1904 years. In particular, he reported that he wrote poems under the pseudonym "Mijmar" (the meadow where the fragrant grass burns). He claimed that he was "brave of the orators" (pahlavon)... It exemplified the Tajik Gazal, which has a subtle expression

of spirituality. It should be mentioned in mind that Ayni in his book “Exemplary literature Tajik”, which he compiled in 1926, showed Fitrat as the founder of Tajik Soviet literature.”

While analyzing the poems of Fitrat, B.Kosimov told that he wrote his first poems in Persian according to the tradition of the Bukhara environment, and also in the collection "Sayha". It gave such a high rating as H.Boltaboev. Fayzulla Khujaev in his book on the history of the Bukhara revolution “...In these poems for the first time the idea of independence of Bukhara was expressed in a very vivid form” wrote the first poems of the jadids about independence. In them, patriotism, glorification of the land, aspiration for independence, the scientist confessed, "There could not be a peaceful mention of Motherland. His grief was endless; his injuries were devastating. He boasted with it. He consecrated him from everything, he sought happiness and salvation for him:

Oh, my God!,  
 Oh, dear, Motherland!  
 My month and peace of mind , my honor,  
 Also my ka'ba, my kibana, too my.  
 (Binmo, sahariazmitavofi Vatani man,  
 Oh- oh, chi Vatan, sajdagohijonutani man.  
 Ham mohimano soyishi , izzusharafi man,  
 Ham ka'bai man, qiblai man, ham chamani man.)

In the Hadis Sharif it is said that "To love the Motherland is from faith". The Motherland for Fitrat said that this is a sajdah, the heart of his body, the moon in heaven, self - esteem, the Kabah and kibra, the garden of flowers. He does not just love the motherland, glorifies it as a faith, made the Motherland as the Kiblah. This became the main goal in the life of the jadids in the Fitrat.

According to B.Kasimov, a series of poems with the name “Grief of the land” would be published in the newspaper “Hurriyet”, which the poet himself edited. Most of them are absurd poems, as the Fitrat himself said, mansuralar (a type of poems). For the first time in Uzbek literature, such an experiment was conducted in Hamza's creativity. A poem of the newspaper "Sadoyi Turkistan", printed in the issue of 18 July 1914, was called “Poem Mansur” (prose poem).

“The Hurriyet” newspaper that connected a strong ring between the Fitrat and Cholpon, according to B.Kosimov, "a number of passionate poems of Fitrat were reported to be published on this newspaper. The collaboration between the talented poet and the famous writer, whose name came to the end of literature, began in the same newspaper. The Fitrat supported the poems sent by Cholpon, giving them a high rating, printing on this newspaper.”

In the poems of the collection “Grief of the land”, the fall of the Shuro government in the revolutions, the fall of the world in the last centuries, the world was lost, the enemies-he was buried in badness, began to destroy his own appearance, the scientist said in his words, "The grief of Turkestan, which fell into the world of another nation", starting with that, “Oh, great Turan, the area of lions!...” the prose is particularly stormy in poetry.

Prose poetry is actually "the poem of prose", which is also encountered in world literature, and is an artistic speech similar to a poem with its emotionality and a certain rhythm. At the moment, too, there are three views of the pros with vazn:

1. Poem with pure vazn.
2. White poem.
3. Verse in prose.

In Uzbek literature there are also ancient written monuments. In classical literature, Navoi is also occurred. There is also in M.Gorky's creativity in the Russian literature. In Jadid literature, most of the poems of Fitrat analyzed by B.Kosimov are examples of prose poetry. Literature scientist Nadira Afakova, who studied deeply the poetry of Jadid literature, the specificity of vazn, also stated that "Jadid poets not only demonstrated the possibilities of triple weight, but also theoretical ideas about poetic vazns. In particular, the views of Fitrat about poetic vazns were formed as a separate system. Fitrat went on to studyaruz in a new direction in a new historical context, gave the finger a theoretical basis, he himself practically proved his theoretical views by writing poems of all three vazns. These views of him became the foundation of a new type of poetry. But Fitrat does not recognize the free as the third poetic system...The fact that the Fitrat looked freely within the framework of my hair is closer to reality."

In the research of B.Kosimov, the analysis of the ranks of the Fitrat shows that the social content in them is superior than the requirements of the poetic form, as well as the new interpretation of the aruz, which has a wide coverage in classical literature, acquires a social meaning on a new subject. The last of the series "Grief of the land" "My mother needs a soul to save you?" the poem that begins with is a poem in aruz, where the sign of the victory of autonomy is expressed as "prayer of the aruz", which is written in aruz, "the Nash of the victory of the autonomy, the feeling of solidarity with sign, the awakened people, the honor of the fatherhood and the duty before them, the thought of the service of the Mother land".

In another poem "Ahead of Timur", the lyrical hero, who goes "in search of a cure" from the sacrament of glory for his "crushed head, clenched conscience, burnt blood, burned soul", asks for help from his soul, as says "oath" in front of "the undefiled enthusiasm of the world" not to sit next to him without returning the honor of the ancient. If the greatest of the jadids was independence, then the proclamation of autonomy was, in the opinion of the scientist, a great landing place, even if there was no independence. That relative freedom was also a great victory. One of the officials of the Fitrat is devoted to this event.

"We have been crushed for fifty years, humiliated, our hands are tied, our tongue is cut, our mouth is closed...We did not give a single opinion, we rejuvenated, surrounded our faith, this is the autonomy of Turkistan!"

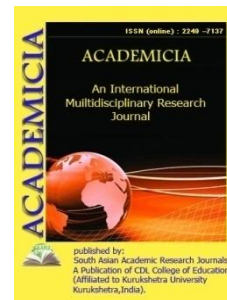
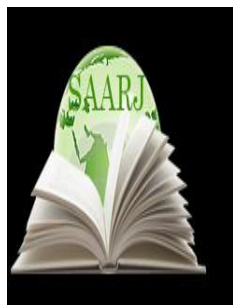
The scientist will tell about the tone of confession in the poem of mansura, the rhymes of the inner verb, which he did not fully observe, that the rhythm, which is spilled vigorously, and the rhythm, which spreads quietly, expresses sadness and joy, provided the nature with an Uzbek style. Because, from the ranks encountered in the world experience, the mansuras belonging to the pen of Fitrat are distinguished by their distinctive features, aspects of form, tension in the content, social psyche.

It should be noted that the full activity, literary and scientific heritage of Fitrat has become a huge phenomenon in the development of Uzbek literature and culture. Last points were placed on the fate of the great Uzbek poet Abdurauf Fitrat with his arrest on April 24, 1937. In the book of Begali Kasimov "Comrades" there are such lines:

"...Seven years before that, there was also a hard drum. Literary criticism took both Cholpon and he from the "nationalist" and reduced it to the "nationalist"...He did not know those years that every step came under control, that every slaughter that came out of his mouth was put into the lead molds of "The Katagan" (all writers and novelists are killed by the Shuro government), that he was already tied to a thread with the people who leaned around him," he described his situation when he was going to Moscow in 1933 year. The study of the life and scientific heritage of Fitrat, who really lived the life of jadid, took a lot of effort. And the research of Professor Begali Kasimov was the greatest scientific experiment and instruction of academic potential in this direction. The research of the scientist gave full coverage of such attributes as archivist, textologist, source, critic. It was proved that in the science of literature there was another Fitratist scientist.

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## CLOUD TECHNOLOGIES IN ISLAMIC EDUCATION INSTITUTIONS

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### ABSTRACT

*Information and communication technology is basically making use of ICT tool to store and retrieves information. It plays an important role in growing and maintaining country's economic growth. In recent years, this topic has become one of the most popular in the IT field, many articles have been written about it, even more conferences have been held, and how many solutions already exist on the market cannot be counted at all. Currently, the old classroom system of teaching and teaching ICTs is changing, and students in Uzbekistan who are engaged in religious education are becoming more and more technology-oriented. Therefore, in this changing educational environment, it is important to think about the latest technologies that could be used in teaching and studying ICT in religious institutions. One of the latest technologies prevailing nowadays is cloud computing. By sharing IT services as platform-based, software-based and infrastructure-based in the cloud, educational institutions in Uzbekistan can now out-source non-core services and better concentrate on offering students, teachers, faculty and other staff the essential tools to help them succeed. However, as always, there is one “but”, namely, most of the users still don't know what kind of “know-how” is cloud technology and why*

*it generally surrendered. Well, we will correct the situation and we will begin, as expected, with theory. Cloud computing is a distributed data processing technology in which computer resources and capacities are provided to the user as an Internet service. If you explain in an accessible language, then - this is your, in a sense, a working platform on the Internet, or rather on a remote server. This paper looks at how Cloud Computing can be applied in the study of ICT and also focuses on the role of cloud computing on the study of ICT in the Uzbek educational system. It also looks at how one can provide quality and affordable ICT education by using cloud-computing technology. A study of the previous system without cloud computing technology was considered and a new model of teaching ICT with help of cloud computing technology has been proposed. An extensive review and analysis of the existing literature and models were considered and a new model was designed and piloted. Our research shows that for the past decades, most public religious educational institutions in Uzbekistan are making grant strides in the development of curriculum for teaching ICT. The model designed was found to be effective and useful for the teaching and learning of ICT and its related subjects. Our research also shows that a good number of tertiary institution both private and public now offer various IT and its related degree and diploma programs. The Islamic Education Service now runs ICT at basic and second cycle levels as subjects.*

**KEYWORDS:** *Islam, Lan, Tas-Ix, Ip, Tsp, Internet Exchange Point, Ats, Adsl, Uznet, Internet Fisteval, Information And Communication Technology Education, Saas, Paas, Iaas, Cct4ict, Moodle, E-Learning, Virtual Method, Learning Management System.*

## INTRODUCTION

Now there are practically no such families in which there is no computer. IT technologies appeared in our life not so long ago, but a modern person at the moment cannot live without them. Now it is impossible to imagine how we would live without a phone or computer. But technology cannot work forever. There are situations when it fails.

On a computer, we store important files that we need for work, study, and also in other areas of activity. One can easily imagine how enraged people are when the operating system “flies” on the computer, and not all files can be subsequently restored. It should be borne in mind that the operating system runs on average one to three years, and we are not always ready to lose the documents we need so much.

It's not always convenient to carry a flash card between work and home, and every day, constantly “flipping” files back and forth, carrying a laptop or tablet computer all the time is also not a convenient option, but you unconsciously want these files always were close at hand.

In recent years, this topic has become one of the most popular in the field of IT in Uzbekistan, many articles have been written about this, more conferences have been held, and how many solutions already exist on the market cannot be counted at all. Actually, all the difference lies solely in the method of data storage and processing. If all operations take place on your computer (using its capacities), then this is not a “cloud”, but if the process takes place on a server on the network, then this is exactly the trendy thing that is commonly called “cloud technology”.

However, as always, there is one “but”, namely, most of the users still do not know what kind of “know-how” is cloud technology and why it generally surrendered. Well, we will correct the situation and we will begin, as expected, with theory. Cloud computing is a distributed data processing technology in which computer resources and capacities are provided to the user as an Internet service. In other words, cloud technologies are various hardware, software, methodologies and tools that are provided to the user, like Internet services, for the realization of their goals, tasks, and projects. Now day’s Educational institutions to develop and run ICT and its related programs. Parents are encouraged to send their wards to academy, institute and university that run ICT and its related programs. There have been various models to promote ICT education in Uzbekistan. One of the biggest challenges that the government faces in providing education is the lack of infrastructure and if available then maintenance of that infrastructure and other issues in procuring and maintaining a wide range of hardware and software[3].

With this challenge, IT education would be one of the most affected as it is purely practically oriented. Cloud computing can provide solutions to these challenges and reduced it to some extent. Thus by implementing cloud computing technology, Islamic educational process can overcome most of these challenges and also maintain a centralized system where all stakeholders can check the ICT education system from each and every aspect and continue to monitor and guide the system. They can not only check the needs of the ICT institutions, but also ensure that quality IT education is provided to every student and also his attendance, class performance and others attributes can be effectively monitored. The Cloud Computing Technology (CCT) helps to ensure that students, faculty, parents and other staff have on-demand access to critical information using any device from anywhere, at any time.

## LITERATURE REVIEW

The strategy we used to create the search strings was as follows [2] [36]: • Finding papers about cloud computing in education sector. • Listing keywords mentioned in primary studies which we knew about. • Use synonyms word (usage) and sub subjects of cloud computing in education such as (E-learning, management systems in education). • Use the Boolean OR to incorporate alternative spellings and synonyms. • Use the Boolean AND to link the major terms from population, intervention, and outcome. The complete search string initially used for the searching of the literature was as follows: Cloud computing AND education. It has been highlighted in [5] [20] that there are two main issues on conducting an SLR search which are the sensitivity and specificity of the search. In our preliminary search, when we used the complete search string defined above we retrieved a very high number of articles. For instance, Google scholar, Scopus, ProQuest education, IEEEExplore, Science Direct, Springer Link retrieved more than two hundred results. Therefore, we have deepened our search and used this search string: (Adoption OR Usage)AND (Cloud OR “cloud computing”) AND (Education OR E-learning). The revised search string has given us a reasonable number of studies and we finally selected relevant empirical studies

## ANALYSIS AND RESULTS

The word cloud was used in the 1990s to metaphorically denote the Internet: then the Global Network appeared to be something mysterious, indefinite in its spatial boundaries, indistinguishable from its internal elements and rapidly changing. The definition of “cloud

computing” recorded in the article under the heading “ORGs for Scalable, Robust, Privacy-Friendly Client Cloud Computing” reads as follows: “This is the case when information is permanently stored on servers on the Web and temporarily stored on the client side - for example, on desktop computers, tablets, laptops, mini-computers and so on”[1].

Education is one of the instruments used to measure a progress of a nation. Therefore, the education aspect should be given a certain attention; in the aspect of equity, facilities, qualities, and outcomes. In some previous decades, the discrepancy in education was a public spotlight. The concerns were about the insufficient facilities, unqualified human resources and disintegrated education system.

It is believed that the development of the ICT-based education for Islamic Study should be adjusted to the identity of Quran and hadiths. The orientation should be formed in a 3-way relationship, they are God oriented, human relationship oriented, and human-environment oriented[2].

For the first time the idea of "cloud computing" was voiced by D. Liklider in 1960. His idea was that every person on the planet would be connected to a network from which he would receive not only data, but also programs. Another scientist, John McCarthy, expressed the idea that computing power will be provided to users as a service (service) [3].

There are so many "secret" terms in the Internet. One of them is Tas-IX. The abbreviation Tas-IX in the Uzbek phrase "Tas" is "Tashkent". Place of agreement on creation of Internet traffic exchange point -Tashkent city. "IX" is derived from the English word "Internet exchange Point" -"Internet exchange point". We can describe the Internet as an information exchange point in Tashkent. The point of Tas-IX is located at ATS 244. There are only 4 employees working there. [4].

The term also ICT includes computers, computer networking (the Internet and intranet), peripheral devices and multimedia, and the range of assistive technologies available for children with Special Educational Needs[5].

Information and communications technology is a broad term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on [6]–[7].

Islamic education therefore decide for the one or the other or both in their subject packages, depending on their country’s needs. With IT been an applied field of study, CS has scientific, mathematical and practical dimensions. The use of ICT to improve productivity at work has increased over the years, and as such it is paramount that every students attains a higher level in computer literacy. Part of the task of islamic educational institutions is to produce workforce-ready graduates who can, among other things, manipulate and analyze raw data, critically evaluate information, and operate hardware and software [8].

In Uzbekistan, ICT as a core subject is normally taught at all levels of the bacheloreducational system. Some institutions, offer ICT as well as its-related courses to their students at the bachelors’ level, masters’ level, and also PhD level. For example, International Islamic Academy of Uzbekistan and Kokaldosh special institute of Islamic education, Toshkent Islam institute, Mir Arab madrasa also offer ICT and its related programs etc[9].

ICT education in Islamic academy and institutions is not without issues. Some of these issues are Lack of access to appropriate technologies. In most places in Uzbekistan, teachers teach students ICT without having access to any technology for proper demonstration. This is mostly due to cost constraints, Lack of technical knowledge, Lack of adequate time for planning lessons. Policy efforts should therefore be directed at using cheap ICTs to facilitate teaching and learning within the educational system and to promote e-learning as well as life-long learning within the population at large. Now days in international Islamic academy of Uzbekistan setup a new server and used Moodle. Its arable on <http://estudy.iaau.uz/>[10].

For examples, some Islamic institutions used Moodle - Open-source learning platform. Moodle is a learning platform designed to provide educators, administrators and learners with a single robust, secure and integrated system to create personalized learning environments. You can download the software onto your own web server or ask one of our knowledgeable Moodle Partners to assist you. Moodle is built by the Moodle project, which is led and coordinated by Moodle HQ, which is financially supported by a network of over 80 Moodle Partner service companies worldwide [11].

All these activities are aimed at introduction of new pedagogical and information technologies in the education system of the republic, particularly in the field of religious studies and Islamic studies, including electronic education, conducting of electronic forums, video conferences, creation of electronic textbooks and manuals and their use in educational process[12].

The basis of application of information and communication technologies in the educational process is virtualization of the educational process in the disciplines, organization of multimedia and network systems. Currently, a large number of e-learning resources are created on the subjects taught in many educational institutions. [13].

The main directions of development of cloud technologies: Four main areas of cloud computing development are IaaS; PaaS; SaaS,\* aaS. Some products directly provide users with Internet services such as storage systems, middleware, collaboration support, and databases.

Infrastructure as a service (IaaS, English Infrastructure-as-a-Service) is provided as the ability to use the cloud infrastructure to independently manage processing, storage, networks and other fundamental computing resources, for example, a consumer can install and run arbitrary software that can include operating systems, platform and application software. The consumer can control operating systems, virtual storage systems and installed applications, as well as have limited control over the set of available network services (for example, firewall, DNS). The control and management of the cloud's physical and virtual infrastructure, including the network, servers, types of operating systems and storage systems used by the cloud provider. Examples of users (system developers, administrators, IT managers)[14].

Platform as a service (PaaS, Platform-as-a-Service) - a model where the consumer is given the opportunity to use the cloud infrastructure to host the basic software for subsequent placement on it of new or existing applications (proprietary, custom-developed or purchased replicated applications) The composition of such platforms includes tools for creating, testing and executing application software - database management systems, middleware, and runtimes of programming languages - provided by the cloud provider. Monitoring and control of the cloud's main physical and virtual infrastructure, including network, servers, operating systems, storage, is carried out by the cloud provider, with the exception of developed or installed applications, as

well as, if possible, configuration parameters of the environment (platform). User examples (application developers, testers, administrators)[15].

Software as a service (SaaS, English Software-as-a-Service) - a model in which the consumer is given the opportunity to use the application software of the provider operating in the cloud infrastructure and accessible from various client devices or through a thin client, for example, from a browser (e.g. webmail) or through the program interface. The cloud provider carries out the control and management of the cloud's physical and virtual infrastructure, including the network, servers, operating systems, storage, or even individual features of the application (with the exception of a limited set of user application configuration settings). User examples (business users, application administrators)[16].

Others \*aaS: for example: DaaS (Desktop-as-a-Service) offers each user a standardized virtual workstation, with the ability to configure and install other programs. Access is via the network through a thin client, which can be anything from a typical PC to a smartphone (Google Chrome OS)[17].

CaaS (Communications-as-a-Service) - a combination of software and hardware for organizing all types of communication (voice, mail) between employees of the same enterprise through third-party solutions.

Cloud computing is receiving a great deal of attention, both in publications and among users, from individuals at home to the government. Cloud computing is a subscription-based service where one can obtain networked storage space and computer resources [18].

Cloud computing is a distributed data processing technology in which computer resources and capacities are provided to the user as an Internet service. If you explain in an accessible language, then - this is your, in a sense, a working platform on the Internet, or rather on a remote server.

Let's look at an example to make sure that almost all of us, one way or another, have already come across this solution.

Do you have an e-mail? Of course, have. So, if you work with mail on some website service (for example, gmail) that allows you to use this mail, then this is nothing more than a cloud service, which is part of such a thing as cloud technology. For example, image processing[19].

If you reduce the size, turn your photo over in Photoshop or another special program, then you have nothing to do with cloud technology - everything happens and is processed locally on your computer. But if, after downloading the image, for example, through the Picasa service, you process it on the other side, to be in the browser, then this is the same "cloud".

When one save pictures, CVs, copies of assignment in emails and even use google classroom platform instead of home computer, then —cloud computing technology (CCT) service is been offered. If a lecturer want to use for example, an online learning tutorials to reach out to students instead of using a computer presentation in the classroom, then that online presentation service is a - CCT service. Cloud Computing Technology, CCT refers to the carriage of computing resources and services over the global internationally recognized network popularly known as internet. Instead of keeping data on one's own storage device or

installing an application on one's own home computer, you use an infrastructure /service over the Internet, at another locality, to store your information or use its applications[20].

Advantages of cloud computing: In contrast to general reasoning, the following 3 questions are significant. The first question is: will the cost of moving to the "cloud" be low enough so that the expected outcome is already apparent in the medium term? The second question can be formulated as follows: are cloud technologies the basis for the growth and development of the company? The third question will be related to security - will the transition to cloud technologies provide a level of security that is sufficient to consider the risks that distinguish it at a new level of development of the company?

The table below presents 4 different approaches to implementing cloud technologies. The application is developed from scratch according to the traditional model in the first case. In the second case, the creation is initially carried out on the basis of cloud services. In the third case, the commercial organization already has a ready-made application and implements its complete migration to the clouds. Finally, the fourth case is the continuation of the application of the cloudless application, which is available, without modification[21].

In each case, there are one-time and recurring expenses: the former have to be dealt with only at the step of creating and implementing the application, and the latter - regularly, until the application is denied use. Table 1.

Types of expenses	Creating a new application (traditional model)	Creating a new application in the cloud	Full transition of the application to the "cloud"	Continued use of the application, which was created according to the traditional model
<b>One-time costs</b>				
Equipment	high	-	-	-
Creation / improvement of service	high	high	medium	-
Disposal of equipment	-	-	medium	-
Employee training	Low to medium	medium	medium	-
<b>Recurring costs</b>				
Cloud Rental	-	medium	medium	-
Technical support	-	medium	medium	-
Salaries to employees	high	medium	medium	high
Rental of infrastructure and premises	high	-	-	high

Table 1. One-time and recurring costs for different approaches to the implementation of cloud technologies

- Increased performance of user computers. Since most programs and services run remotely on the Internet, user computers with fewer programs start and work faster.
- Inexpensive computers for users. Users do not need to buy expensive computers with a large amount of memory and disks in order to use the programs through the web interface.

- Reduced costs and increased efficiency of IT infrastructure. Regular servers of an average company are 10-15% loaded. In some periods of time there is a need for additional computing resources, in others, these expensive resources are idle. Using the required amount of computing resources in the cloud at any given time, companies reduce equipment and maintenance costs by up to 50%.
- Constantly updating programs.
- Less maintenance problems. As there are fewer physical servers with Cloud Computing, they are easier and faster to maintain.
- Lower software purchase costs. Instead of acquiring software packages for each local user, companies buy the right software in the cloud.
- Increase in available computing power. Users can run more complex tasks, with a large amount of necessary memory, space for data storage, when necessary.
- Unlimited amount of data stored.
- Compatible with most operating systems. Access to programs and virtual computers is via a web browser or other means of access installed on any personal computer with any operating system.
- Improved compatibility of document formats.
- Easy collaboration between user groups.
- Widespread access to documents.
- Availability from various devices.
- Friendliness to nature, economical use of its resources. Cloud Computing can not only save on electricity, computing resources, physical space occupied by servers, but also a reasonable approach to the consumption of natural resources.
- Data resilience to loss or theft of equipment.

#### Disadvantages of cloud computing:

- Permanent connection to the Internet.
- It works poorly with slow Internet access. Many cloud-based programs require a good Internet connection with high bandwidth.
- Programs may run slower than on the local computer.
- Not all programs or their properties are accessible remotely. If we compare programs for local use and their "cloud" counterparts, the latter so far lose in functionality.
- Data security may be at risk. The key word here is "can." It all depends on who provides the cloud services. If this someone reliably encrypts data, constantly makes backup copies of it, has been working on the market for such services for more than a year and has a good reputation, then data security threats may never happen.

If data in the "cloud" is lost, then it is lost forever. It is a fact. But losing data in the "cloud" is much more difficult than on the local computer. Despite the fact that the number of pluses

exceeds the minuses, in each specific situation they are of great importance or vice versa, they do not matter. Cloud data storage is a model of online storage in which data is stored on numerous servers distributed on the network and provided for use by customers, mainly by a third party. In contrast to the model for storing data on its own dedicated servers purchased or leased specifically for such purposes, the number or any internal structure of the servers is generally not visible to the client. Data is stored, as well as processed, in the so-called cloud, which represents, from the point of view of the client, one large virtual server. Physically, such servers can be located remotely from each other geographically, up to a location on different continents. [22]

In other words, this is a kind of online service that provides the ability to store files on a remote server. That is, the user can upload the document to any online storage and in the future use it directly from the server. From the client's point of view, all operations take place in one place, the so-called "cloud". However, in fact, the remote server is most often located in different places, and sometimes on different continents. But this does not complicate the work of cloud services, since the speed of work depends on the client. More precisely, from the speed of the Internet connection at the client, which should preferably not be lower than 600 Kbps. That is why cloud services appeared not long ago due to the fact that high-speed Internet with a provided speed of at least 10 Mb / s. appeared in our academy[22].

Cloud Storage Overview. There are quite a lot of cloud storages, and all of them provide various opportunities. They are paid and free, designed for a large amount of information and for a small amount, support for various operating systems, etc. The only thing that is similar to each other is in the method of processing information.

This section covers some of the most popular cloud storages. Such as:

Cloud computing has been widely used by the scientific community and in industry as users can benefit from computing infrastructures at low costs. Cloud computing's adoption by industrial enterprises is increasing; however there are critical issues which require attention, such as security and trust, to ensure data integrity and confidentiality. There are also important issues that must be addressed in cloud computing, such as resource allocation and scheduling, performance, energy conservation, and reliability, protection of sensitive data, cost, availability, and quality of service. Effective management of cloud resources to balance power efficiency against system performance [23].

Cloud Computing provides environments to enable resource sharing in terms of scalable infrastructures, middleware and application development platforms, and value-added business applications. These resources include the following; Infrastructure resources, Software resources, Application resources, Business processes[24].

With the cloud computing technology, users use a variety of devices, including PCs, laptops, smartphones, and PDA's to access programs, storage and application-development platforms over the internet, via services offered by cloud computing providers. Cloud Computing has become a significant technology trend, and many experts expect the cloud computing will reshape Information Technology processes and the IT marketplace.

Advantages of the cloud computing technology include cost savings, high availability and easy scalability. Cloud options range from everyday services, such as email, calendaring and collaboration tools that members can collaborate online [25].

System Administrators can bring new services and computing capacity online quickly while managing costs as operational expenses. Cloud computing is a computing model based on networks, especially based on the Internet, whose task is to ensure that users can simply use the computing resources on demand and pay money according to their usage by a metering pattern[26].

(CCT) Service Models Cloud computing Technology services are generally regarded as falling into three separate categories, Infrastructure as a Service (IaaS)-The IT infrastructures like processing, storage, networks and other fundamental computing resources can be used by the consumers as a service. In order to integrate/decompose physical resources IaaS uses Virtualization extensively. Platform as a Service (PaaS)-To develop cloud services and applications PaaS provides a development platform supporting the full-Software Lifecycle. PaaS requires programming environment, tools, configuration management etc., to support the application hosting environment and Software as a Service (SaaS)-The

Software usage is provided to a consumer as a Service. Based on the demand the consumer can choose his software to use. Cloud providers release their applications on a hosting environment, which can be accessed through networks from various clients like web browser, PDA, etc., by the application users[27].

CCT4ICT) model in Educational system3.2 Cloud Computing Technology for ICT (CCT4ICT) model in Educational system Most educational institutions have become highly dependent on information and communication technology tools to provide solutions and also service their requirements. These services and solutions are progressively provided using Internet Services to both teaching non-teaching staff and students and accessed using web browsers. The services are presented are not cheaply or not freely to education, often with most of these educational institutions spend a lot on the various resources in order to provide quality services to their users The society are most likely to face a future where the majority of educational services will be hosted in the cloud and institutions no longer host their own data centers with expensive hardware, power bills, staff salaries and computing resources [28].

This paper brief has analyzed some of the emerging benefits and challenges of Cloud Computing Technology (CCT) for the study of IT in the educational sector. In most of the government schools and colleges in Islamic institutions, IT plays very small role in the teaching and learning of ICT. Most of the work is done manually from attendance to classroom teaching and even to examination system. Cloud Computing Technology for ICT education model (CCT4ICT) can provide solutions for the above mentioned problems in the study of ICT in our educational system[29]..

CCT4ICT enables users to control and access data via the Internet. The main users of a typical CCT4ICT include ICT students, ICT Faculty members, administrative staff, Examination Branch and Admission Branch.

All the main users of the institution are connected to the CCT. Separate logins are provided for all the users for their respective work. ICT lecturers can upload their class Tutorials, assignments, and tests on the CCT server which students will be able to access all the teaching material provided by the teachers via Internet using computers and other electronic devices both at home and in schools irrespective of their location college. The CCT4ICT will make it possible for lecturers to identify problem areas in which students tend to

make mistakes, by analyzing students' study records. In doing so, it will also allow lecturers/teachers to improve teaching materials and methodologies [30].

This will not only make it possible for students to use online teaching materials during class but they will also be able to access these materials at home, using them to prepare for and review lessons. Utilization of CCT4ICT will reduce the cost of operation because servers and learning materials are shared with other colleges. Lecturers who normally travels outside for seminars, conferences and other academic programs can still get in touch with their students at very affordable price using CCT4ICT education model[31].

In the traditional deployment model, all Information Technology resources are housed and managed in-house normally by ICT experts. Many aspects of these services, solutions and tools can be migrated to the cloud and consumed directly over the internet either as fully functional applications (SaaS), development platforms (PaaS) or raw computing resources (IaaS). Figure 3 shows how CCT can be integrated with the different learning approaches of ICT education[32].

This model was adopted from NCCA: 2004a but has now be incorporated with CCT.

- Independent Learning style: The CCT4ICT model Independent Learning style: The CCT4ICT model will affords student greater opportunity to choice the best learning style and also at their own pace.

Using an ICT device, students can access a wide array of resources and software tools that suit their learning styles and interests.

- No Extra Infrastructure: Colleges and governments are now free to focus on their goals that is making more research facilities available to the students and making the environment global inspire wasting time on worrying about the buildings, labs, teachers etc[33].

- No more expensive textbooks and Infrastructure. This is not secret that higher education-level textbooks and other materials are expensive. Even in some cases they are not easily to come by .The cost of textbooks and other ICT learning materials has outpaced the cost of virtually everything else in education, including tuition. As a result, many students cannot afford them. Cloud Computing Technology-based textbooks can solve this problem as digital content is significantly less expensive than printed content and most of them are free. This situation therefore gives a level playing field all ICT students in both developing and developed countries.

- No expensive software required. One of the main advantages of CCT-based computing is the software-as-a-service (SaaS) model. Many software programs are now open source and readily available either free or on a low-cost subscription basis, which substantially lowers the cost of essential applications for students. For instance, instead of purchasing a single Microsoft Office application student license for GH800, students and their families can purchase a CCT-based subscription for five laptops and five smartphones devices for only GH 50 per month. Some of them such as Google Docs are even free. Institutions can also store big data by using SaaS applications—traditional Education management systems can cost upwards of Gh200, 000 or even more, but CCT-based learning management systems such as Google Classroom are less or free[34].

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- No boundaries to students learning environment. CCT opens up a world of new options for students, especially those who are not assisted well by traditional education systems. For instance until the inception of online education, the options for the old who didn't have formal education were very limited but now they can earn their diploma or degree online at any institution so far as they offer that service. In these and other things, CCT is not only reducing costs, but also creating an environment where ICT students can have access to high-quality education and resources. Whether you are an administrator, a teacher, a student, or the parent of a student, now is a great time to explore how CCT-based applications can benefit you, you're children, and your school.

How cloud technologies can help promote the efficiency, productivity and innovation in Islamic education in Uzbekistan. Cloud computing, which included telecommunications, private, and public cloud systems, are seen as revolutionary technologies capable of shaping business telecommunications, the internet, and most of industry markets.

CCT challenges have always been there. Companies and institutions are gradually aware of the business value that CCT brings and are taking steps towards conversion to the cloud. A smooth conversion involves an exhaustive understanding of the benefits as well as challenges involved. It should be noted that to date "Big Data" is the most important trend that spreads to the most diverse areas of business and technology [35].

Like any new technology, the adoption of CCT4ICT model is not free from issues. Some of the most important challenges are as follows.

- These risks can be lessened by using advance security applications, high quality encrypted file systems, data loss software, and buying security hardware to track unusual behavior across servers. Security and Privacy: The main challenge to cloud computing is how it addresses the security and privacy concerns of institutions adopting it. The fact that the valuable instructions data such as students examination results will reside outside the corporate firewall raises serious security concerns. Hacking and various attacks to CCT infrastructure would affect multiple clients even if only one site is compromise.

- Service Delivery and Billing: It is not simple to assess the costs involved due to the on-demand nature of the services. Accounting and valuation of the cost will be very difficult unless the provider has some decent and equivalent benchmarks to offer.

- Interoperability and Portability: Institutions should have the control of migrating in and out of the CCT and switching providers whenever the need arises. CCT services should have the capability to integrate smoothly with the existing ICT tools in the Islamic institutions.

- Reliability and Availability: CCT service providers still lack round-the-clock service; this results in frequent outages. It is important to monitor the service being provided using internal or third party tools. It is vital to have plans to supervise usage, SLAs, performance, robustness, and business dependency of these services.

- Performance and Bandwidth Cost: Islamic academy and other islamic Institutions can save money on hardware and other software but they have to spend more for the bandwidth. This can be a lower cost for smaller applications but can be expressively high for the data-intensive applications.

No challenges should be considered as roadblocks in the pursuit of CCT. It is rather important to give serious attention to these issues and the possible ways out before adopting the technology.

## CONCLUSIONS

In conclusion, it is worth saying that at the moment there is an active development and improvement of cloud computing technology. But we are talking about development, and not about use. At the moment, many are afraid of the very fact that information will be stored by outsiders. And although the almost impossibility of losing or stealing data has already been proven, few are willing to trust such services. The lack of quality, stability and speed of Internet connections for the given period of time also affects, which creates significant difficulties for developers. However, despite these significant shortcomings, the advantages of introducing this technology are clear to everyone at the Islamic International Academy of Uzbekistan. Cloud data storage is very necessary nowadays. This can be confirmed by a number of reasons: lack of hard drive space, not OS durability, "running around with a flash card" and so on [36].

The work speaks of the most famous "clouds." These are: Dropbox (In particular, Dropbox does not have the ability to edit documents, but there are no restrictions on the format and size of multimedia files), Yandex. Disk (It has the highest speed (2-3 megabytes per second) and the ability to connect a disk via WebDav. These are pretty big advantages), Google Drive (Google's main advantages are the low cost of additional gigabytes and tight integration with Google Docs, which allows you to edit files online)

In conclusion, cloud computing is recently new technological development that has the potential to have a great impact on the Islamic educations. It has many benefits that it provides to its users and businesses. For example, some of the benefits that it provides to Islamic education is that it reduces operating cost by spending less on maintenance and software upgrades and focus more on the education process itself. The CCT allows one to access work anywhere, anytime and share. It helps one from needing a particular machine to access a file or an application like a word processor or spreadsheet program. In this paper a cloud education model called CCT4ICT was introduced and how it is beneficial for students, faculty and the educational Islamic institutes for providing quality ICT education. Challenges such as cost, security and other issues were also considered. Future assessment of the model would also be considered. But there are other challenges the cloud computing must overcome. People are very skeptical about whether their data is secure and private. Users also worry about who can disclose their data and have ownership of their data.

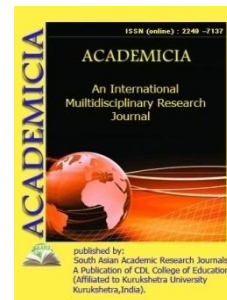
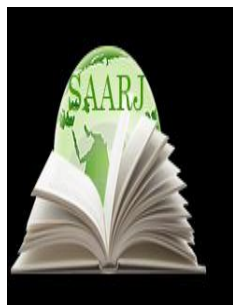
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## TECHNOLOGY OF FEEDING AND STORAGE OF ALPINE AND TOGGENBURG BREED GOATS FOR MEAT

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### ABSTRACT

*The article describes the technology of feeding and storage technologies for meat-fed heifers in terms of growth, development and fattening. During the 120-day growth period after the lactation period, the platelets are supposed to be covered with energy, digestible protein, macro and micro elements, table salt, chalk and premixes required by their body. One of the most important stages of development of the organism in dairy cattle is their newborn and the first 4-6 months of age.*

**KEYWORDS:** *Genetic Productivity Potential, Care, Nutrition Types, Albumin And Globulin Proteins, Norm, Hydropon Nutrition, Immune System.*

### INTRODUCTION

It is known that the genotype of animals has an effect on increasing productivity by 5-18%, 60-75% depends on the factors of care and feeding of animals, 10-30% on storage conditions, as noted by a number of leading European scientists. Therefore, goat feeding factors play a key role in increasing productivity.

The productivity of animals is genetically directly related to the conditions of storage and feeding during their care and use on the farm (V.I.Seltsov, 2008, V.I.Seltsov.N.V. Molchanov et al. 2008) determined that the method of storage is 133% ) and high accuracy (3.5%).

Demand for goat milk and dairy products in European countries has been growing steadily since 2001. This, in turn, is due to the growing global interest in natural and environmentally friendly products. Consumption of goat milk and especially cheese by the population of European countries has become an integral part of food culture.

With the import of dairy goats to Uzbekistan from developed European countries, industrial goat breeding began to take shape. This, in turn, will lead to the transition to mechanization of milking processes. To date, the development and modernization of dairy farming in goat breeding also includes goat milk farms.

One of the most important stages of development of the organism in dairy cattle is their newborn and the first 4-6 months of age. At this age there is a rapid growth and development of important organ and organ systems such as temperature control, cardiovascular, respiration, digestion.

By the end of this period, young growing cattle are fully transitioning to the consumption of plant nutrients, forming a digestive and intestinal tract in their large abdomen. Therefore, taking into account these factors, it is important to create conditions for the care of young cattle.

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Improving herds and demonstrating the genetic productivity potential of cattle is a key factor in feeding them from a young age in nutritious rations, caring for them in optimal storage conditions, preparing young growing kids and goats for breeding, and introducing goat milking technologies. Storage and feeding-oriented care methods as well as accelerated, resource-saving technologies during the growth and development periods and its full-fledged feeding types and feeding technologies have been developed.

When feeding farm animals, the feed base of the farms is usually taken into account. Therefore, it is necessary to develop a system of periodic feeding of goats based on the feed base of farms.

"INZIM-TEX" alcohol farm has been transferred to the breeding category. The number of goats is 815 heads, including 350 heads of dairy goats and 465 heads of young growing goats. In the future, the number of goats in the goat complex will reach 10,000. Holstein and Simmental cattle imported from Austria, Europe, were brought to the farm. The number of cattle is 280 heads, 157 heads of cows, 57 heads of heifers, 66 heads of young cattle.

Alpine and toggenburg goats are the most common breeds in the world after the zannen breed among dairy breeds. One of the main factors of its distribution is its adaptation to different natural and climatic conditions, selection efficiency of breeding horses, fertility of goats, productivity, as these breeds are created as a result of selection, selection, can quickly adapt to any conditions.

It is also common in the Americas, Europe, the Middle East, China and other countries where a number of dairy goats are developed. Fertilizing them in pure form and mixing them with other dairy breeds is bearing fruit.

In order to strengthen the breeding base of dairy goats in different countries and regions of the world, as well as to provide regionalized breeds, alpine and toggenburg kids are imported. The INZIM-TEX goat breeding complex has developed a method of rational feeding of alpine and toggenburg goats during pregnancy and lactation.

In order to determine the meat productivity of alpine and toggenburg goats for rational feeding, taking into account the physiological condition and productivity of goats, the feeding scheme of industrially fed kids up to 3 months of age, growth period 120 days, 90 days of care, 60 days of fattening and 75 days research work on the development of feeding technologies has been launched.

The following aspects are controlled when feeding industrially fed alpine and toggenburg kids with oral milk; quality, duration and quantity of oral milk and the order of administration. According to the Alp and Toggenburg kid feeding and feeding program, oral milk is made by feeding three or four times a day for 22-24 hours after the kid is born.

Brinchi feeding is done sung so that the newborn kid can keep himself alert for the first hour. The second feeding is carried out 6-9 hours after birth. In this case, the content of albumin and globulin proteins in the oral milk of newborn goats is 12.5% and more, which is 0.9% in the milk of the 4th day.

The amount of oral milk is 300-350 g for each kid. In fact, the live weight of the goat is taken into account when setting the norm. It is set at 10% of the weight of the kid. Calves are separated from their mothers at birth and kept in separate clean prophylactic rooms and fed with oral milk in the above order.

The feeding scheme and ration of goats up to 3 months of age should serve the normal course of growth and development of heifers in the brain. From 10 to 15 days of age, the main feed for kids is breast milk, which is determined by the live weight and daily growth of milk. In the first month of calf growth, the milk intake is 1.5-1.7 kg.

**TABLE 1 FEEDING SCHEME OF GOATS UP TO 3 MONTHS OF AGE**

Age, month	Weight, kg	Feed, kg							Mineral nutrients	
		Milk, kg	WMS	Hay	Silo	Hydropon feed	Feed		Salt, g	Special premix, g
							Wheat porridge	Spec BDK		
1-month	7-8	45-51	-	training	-	-	3-3,2	-	9-15	9-15
2-month	13-14	20-25	50-55	3,5-4,0	-	5-6	1,05-1,35	3,75 05	60-69	60-69
3-month	19-20	10-12	60,5- 65,5	7,8-8,5	6-7,5	9,5-10	1,5-2	7,5- 5	90-105	90-105
<b>Total:</b>		75-88	110,5- 120,2	11,3- 12,5	6-7,5	14,5-6,0	5,55-6,55	11,2 2,55	159- 89	159-189

Cream-derived milk is gradually taught the composition of the ZTsM ration from the age of 4 weeks, depending on the health of the kids, the condition of the stomach and the feeding scheme applied.

The milking scheme is carried out with the intention of breeding the goats and feeding them on meat. Therefore, the amount of skimmed milk for offspring is less than for meat-fed goats, and the amount of breast milk is 65 kg in the first month. The norm of drinking milk is from 3 months to 4 months of age, depending on the intended purpose.

At present, artificial milk substitutes are widely used in goat feeding (ZTsM). After 30 days of age, the kids are gradually transferred to ZTsM. ZTsM feeding of kids is carried out as follows: 1.1-1.2 kg of dry milk is prepared by mixing 8.8-8.9 l of warm boiled water and drinking 1.6-1.8 l.

Alfalfa hay is taught to kids from the age of 10 days and is gradually increased to 250-300 g per day. is delivered to. Salt, chalk, premixes 0.5 g to goats from 11 days of age. 2.3-2.5 g by the second month of age is given. 3.3 g of minerals at the age of 3 months. from is added to mixed feeds per day. Mixed feeds are 12 g from 15–20 days of age of kids. then 20 g per day by the age of 2 months and 30 g by the age of 3 months.

During the 120-day growth period after the lactation period, the platelets are supposed to be covered with energy, digestible protein, macro and micro elements, table salt, chalk and premixes required by their body. The feeding ration of meat-fed goats was prepared at intervals and fed on the basis of this feeding technology.

The percentage of coarse feed weight per unit of feed during the 120-day growth period of the experimental heifers was 19.66% of roughage, 50.30% of succulent feed, and 30.04% of mixed feed, for a total of 101.73 kg of feed. 138,601 kg of dry matter, 1386.01 Mj of metabolic energy, and 9,573 kg of digestible protein were consumed, or the average daily feed unit was 0.85kg of feed unit, 1.16kg of dry matter, 11.6Mj of metabolic energy, 94 g of digestible protein.

In feeding goats for meat and demonstrating their genetic productivity potential, care under optimal storage conditions from their young age, complete feeding types and rations over the course of periods provide a sharp increase in the growth and development of goats.

In the care of young cattle at all stages of their growth it is necessary to ensure the growth potential of heredity at all stages of growth, otherwise it is impossible to correct the shortcomings, to restore the lost weight

During the 90-day maintenance period, the diet consisted of 17.850% of coarse foods per unit of feed, 55.60% of succulents, 26.55% of mixed feeds, or a total of 104.86 kg of feed per 90 days, and 183.773 kg of dry matter per day for 90 days. the exchangeable energy was 1837.73Mj and the digestible protein was 11.443kg. An average of 1.17 kg of feed unit, 2.04 kg of dry matter, 20.4Mj of metabolic energy, and 109 g of digestible protein per 1 head of goats.

During the 60-day period of fattening, the weight of coarse feed was 22.98%, juicy feed was 28.92%, and the weight of mixed feed was increased by 48.10%. The average daily feed unit was 1.31 kg.

During the period of intensive fattening, the weight of roughage was reduced in the diet for 75 days and the weight of mixed feeds was increased. Coarse foods accounted for 16.30%,

succulents for 34.54%, and the weight of mixed feeds in the feed ration was 49.16% per feed unit.

It is known that in fast-growing horses with high genetic productivity potential, the demand for energy and protein is high.

For goats, the ration formed only from forage feeds does not meet the energy and protein requirements of goats. Therefore, concentrates are added during the fattening period to supplement the lack of energy and protein in the diet.

**TABLE 2 TECHNOLOGY OF FEEDING GOATS FOR MEAT**

Feed type	Feed composition						
	Foods,%	Feed,	EKE,	Feed unit,	Dry matter,	Exchange /, Mj	Degistive n, kg
<b>Growing period (up to 120 days)</b>							
Rough	19,66	70	36,36	20	59,151	591.51	1,178
Juicy	50,30	203	72,23	51,17	50,75	507.5	4,257
Concentrate	30,04	33	34,51	30,56	28,7	287	4,138
Total	100	306	143,1	101,73	138,601	1386.01	9,573
Average	-	2,55	1,19	0,85	1,16	11.6	-
<b>Care period (90 days)</b>							
Rough	17,85	66	34,2	18,72	55,773	557.73	1,086
Juicy	55,60	230	82,3	58,3	101,94	1019.4	6,69
Concentrate	26,55	30	31,39	27,84	26,06	260.6	3,667
Total	100	326	147,89	104,86	183,773	1837.73	11,443
Average	-	3,62	1,64	1,17	2,04	20.4	-
<b>The period of preparation for fattening (60 days)</b>							
Rough	22,98	50	28,2	18,0	42,195	421.95	1,51
Juicy	28,92	85	32,35	22,65	38,25	382.5	2,865
Concentrate	48,10	41	42,53	37,67	35,59	355.9	5,13
Total	100	176	103,08	78,32	116,035	1160.35	9,505
Average	-	2,93	1,72	1,31	1,93	19.3	-
<b>The period of rapid fattening (75 days)</b>							
Rough	16,30	45	28,25	18,65	37,51	375.10	3,585
Juicy	34,54	147	56,37	39,51	66,15	661.5	5,031
Concentrate	49,16	62	63,59	56,24	53,8	538.0	7,851
Total	100	254	148,21	114,4	157,46	1574.60	16,467
Average	-	3,39	1,98	1,53	2,10	21.0	-

Save the kids. In our experience, after birth, the kids are kept for 15 days in a special prophylactic made of wood 1.15 m wide, 2.0 m long and 0.92 cm high. The total number of prophylactics is 28. After 15 days, the kids are transferred to a unit with a total of 15-20 heads.

The building is 37 m long, 11 m wide, 5.5 m high, with a total of 14 sections, the sections are 5 m long and 4 m wide, the wooden planks are 1.15 m high. and mangers are placed to give minerals. Special thick plasma troughs 4m long and 30 cm wide are placed for drinking milk. Feeding the kids is done at the feeding table.

The number of special prophylactics made of wood is 25, where the kids are transferred to the ward where they are kept from 25-30 heads until the age of 4.5 months. The unit is made of special wood and is 5 m long and 4.5 m wide. The spreading area is paved, where special wooden rattles for mineral feeds are also placed, feeding is carried out on feeding tables. A special reed-woven naves were built over the rattlesnake in the distribution area. Each section is surrounded by wooden fences.

The total length of the building is 75 m, width 24 m, height 8.5 m In each section there are metal corsets water tanks. It consists of special thick wooden units 15 m long, 8 m wide and 1.60 cm high, where 50-60 goats are kept.

Feeding of goats is carried out 4 times a day until the age of 15 days, then 3 times.

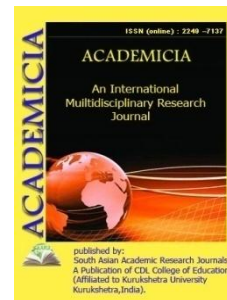
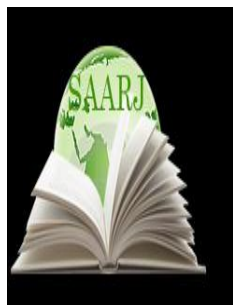
## CONCLUSION

Using the technology of cross-period feeding of goats for meat, the growth, development and meat productivity characteristics of Alpine and Toggenburg goats will be improved, and the developed technology will be introduced in goat farms.

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## **PEDAGOGICAL INTEGRATION AS A MEANS OF FORMING PROFESSIONALLY IMPORTANT QUALITIES AMONG STUDENTS OF A MEDICAL UNIVERSITY**

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### **ABSTRACT**

*The integrative element in the field of pedagogical communication is letting us know more and more about ourselves, where the cooperation and co-creation lines are beginning to take priority, integrative forms of training are being actively introduced - an integrative lesson, an integrative day, and the processes of globalization of education and the construction of integrated educational institutions are deepening.*

**KEYWORDS:** *Globalization, Spheres Of Social Reality, Pedagogy, The Transformation Of Integration, Main Tendency, Experience, Comparing, Correlating, Contrasting, Extrapolating, Transforming, Generalizing, The Experimental Work.*

### **I. INTRODUCTION**

At present, interdisciplinary synthesis is considered as a student's private affair; there are very rare cases when multidimensional problems are discussed at lessons (seminars, lectures). Experience indicates a low level of students' skills in comparing, correlating, juxtaposing, contrasting, extrapolating, transforming, generalizing, finding common ground between different-quality phenomena, opposite positions (teachings, concepts, approaches, etc.), as well as representations synthesized from the totality of knowledge of various nature. Acceptance of course and state exams shows that students, in the course of their reasoning and descriptions, rarely turn to the method of synthesizing individual experience (philosophy of life) and

knowledge acquired in the educational institution, both in the subject under study and in other disciplines.

## II. LITERATURE REVIEW

In the modern interconnected and interdependent world in the context of increasing globalization of all spheres of social reality, the most important feature of pedagogy is the transformation of integration into a leading regularity, the main tendency of its development. This is recognized by large researchers (A.P. Belyaev, M.N. Berulava, V.D. Semenov, I.P. Yakovlev, etc.) - This fact is reflected in legislative acts, normative documents, in the form of a social order to increase attention to the problems of pedagogical integration. For example, the information letter of the Ministry of Education of the Russian Federation No. 577/11 dated 06/10/94 emphasizes the need to build various objects in a single psychological and semantic vein in order to form a holistic picture of the world in children, a sense of the relationship and interdependence of natural and human phenomena. Significant "integrative work" (V.I. Zagvyazinsky) is carried out at the level of teaching practice. In our country, "compiled integrative programs in literature, visual arts, theater, cinema, music" (N.D. Nikandrov); Abroad, courses such as "Economic and Humanitarian Disciplines" have become widespread.

## III. Analysis

The quantitative growth of tourism activity revealed an insufficient level of training of specialists for the tourism industry in information technology. Informatization has a significant impact on education, which ceases to be a means of assimilation of ready-made generally accepted knowledge and turns into a way of information exchange of a person with surrounding people, exchange, which involves not only assimilation, but also the transfer, presentation, generation of information in exchange for received information.

This transformation involves a profound change in approaches to the content of education based on the study of new educational technologies, which become means of presenting, processing and assimilating information.

The system of professional training should be consistent with the needs of society. Therefore, pedagogical integration in the educational process of tourist universities, at whatever level (methodological, theoretical or practical) it is carried out - in any case, its starting and ending point is a person taken in the totality of his internal and external relations and relationships.

The use of pedagogical integration (PI) entails a change in the structure of the organization of the educational process itself.

Thus, we have identified the relevance of using pedagogical integration as a means of forming professionally important qualities in students, which allowed us to formulate the problem: what should be the forms, methods of pedagogical integration in the educational process of a university in order to increase the effectiveness of forming professionally important qualities of students.

Research hypothesis: pedagogical integration in the educational process will contribute to increasing the effectiveness of the formation of professionally important qualities in students if:

- The essence and content of pedagogical integration will be analyzed, the characteristic of modern integrative and pedagogical concepts will be given;

- a model of pedagogical integration in a tourist university will be developed, including the purpose, content, methods, tools, monitoring and evaluation of student knowledge;
- the content of integrated educational programs aimed at the formation of holistic systemic knowledge of students will be determined; - the set of teaching methods necessary for the student in the educational process to form professionally important qualities will be determined.

The methodological and theoretical basis of the study includes provisions that reveal the general issues of pedagogical methodology. The theoretical foundations of the study are represented by the fundamental works of domestic and foreign scientists, teachers, psychologists on the management of personality formation and development processes.

Developing the theoretical foundations of modeling management activities in educational institutions, we used works on the methodology, logic and methodology of education S.I. Arkhangelsk, Y.K. Babansky, N.D. Nikandrova, M.N. Skatkina, Work in the field of educational process management, S.E. Shishova; methodologies and methods of pedagogical research, methodology and methodology for the study of unifying processes (intersubject connections, interconnection, continuity, integration) in pedagogy (A.P. Belyaeva, N.M. Berulavy, V.I.Zholdak, V.I.Zagvyazinsky, A.Y.Nain, A.M.Novikov, V.M.Polonsky, etc.), conclusions about the need to take into account when training both the "laws of pedagogy" and the "laws of production" (S.Ya. Batyshev and others), the relationship of educational and pedagogical and industrial-technical factors in the activities of an engineer-teacher (G.A. Karpova), On the holistic process of the general social and professional formation of the personality (P.I.Smirnova); The philosophical basis is the work of K.V. Kulaev; general theoretical questions of personality psychology are considered in the writings of J.C. Vygotsky, A.N. Leontiev, S.L. Rubinstein and others; The theory of vocational education in tourism is presented in the writings of V.A. Kvartalnova, I.V. Zorina, V.A. Calnei, A.A. Ostapets-Sveshnikov, I.D. Solodukhina, S.E. Shishova).

#### IV. DISCUSSION

The following research methods were used to solve the indicated problems: general theoretical methods - analysis and synthesis, concretization and generalization, universalization and unification, transformation and transformation, idealization and extrapolation; expert assessment method; modeling; questioning; conversation; interview; observation; analysis of exam results.

Research Stages:

Stage I (1994-1995) - a theoretical analysis of the pedagogical, psychological, philosophical and special literature on the research problem was carried out, relevance was substantiated, the research topic was formulated, goals, objectives, and scientific apparatus were identified;

Stage II (1996-2001) - an experimental verification of the main provisions of the hypothesis was carried out, namely, a set of methods needed by students in the educational process, the content of integrated programs for the formation of systemic knowledge of students were determined; The experimental work was carried out as part of an experiment to educate students of the East Siberian Institute of Tourism, a branch of the Russian International Academy of Tourism. In total, more than 190 students took part in the study. During the training, monitoring was carried out in the form of questionnaires at the entrance and control tasks and exams at the exit.

Stage III (2001-2003) - analysis of the results and their testing, presentation of research results and conclusions, preparation of the text of the dissertation. The scientific novelty and theoretical significance of the study are as follows:

- The essence of pedagogical integration is revealed and the concept of the essence of integration is clarified as an interdisciplinary study, characterized as a dialectical method of research, which removes the contradictions in the approaches of various sciences to the problem of education. Hence, pedagogical integration in the broadest sense of the word is the process and result of the development, formation and formation of multidimensional human integrity in the context of the implementation of integrative and pedagogical activity.

- The characteristic of modern integrative and pedagogical concepts in the educational process is given, namely, two groups are distinguished. In the first of them are concepts that directly integrate with their subject matter, which is reflected in their names. Among these, we include: the concept of intrasubject integration of pedagogical knowledge (V.I. Zagvyazinsky), the concept of an integrative picture of education (G.N.Serikov); the concept of the synthesis of didactic systems (L.A. Artemyeva, M.I. Makhmutov); the concept of integration of general and vocational education (M.A. Berulava, Y.S. Tyunnikov); the concept of integration of higher education and basic science; the concept of integrated educational institutions (USA, Western Europe), etc. The second group includes educational concepts in which the integrative element does not appear externally, but is implicitly defined by their characteristics and acts as the result of their implementation. We rank among them: the concept of a cultural and educational center (AL. Nine and others); the concept of a holistic school in modern German pedagogy (R. Winkel, X. Raeder, X. Bruinger, etc.), etc.

- a model of pedagogical integration in the educational process of a tourist university has been developed, including the purpose, content, methods, means, control, and assessment of students' knowledge, which clearly shows the interconnection of all components of the educational process in the context of pedagogical integration, as well as an increase in the students' share of independence in decision-making their implementation in various training and production situations; not only increasing the requirements for the level of professional skills, but also for the level of personal development, which ultimately forms professionally important qualities for students;

- the content of integrated programs has been developed (for example, the disciplines: "Introduction to Tourism", "Fundamentals of excursion activities", "Recreational Resources", "Russian Language and Culture of Speech", "Informatics", which ensure at the level of integration interaction between general and vocational education its complete substantive and procedural unity, and the solution of such didactic tasks of the educational process as updating, summarizing and systematizing students' knowledge;

- a set of methods for teaching students in the conditions of pedagogical integration such as: modeling, an interactive methodology of individual instruction, game methods in the virtual tourist market, a method of creative design, the introduction of which allows us to simulate the future activities of specialists in the field of tourism, to formulate their professionally important, has been identified and experimentally verified qualities, namely: self-learning ability; information culture (computer literacy); ability to solve problems independently; development of research skills in the vocational training system; ability to correctly, logically and briefly

compose a text; good proofreading skills. Reliability, validity of scientific results and conclusions of the study are provided:

- The logic of the original methodological positions of the author; using a systematic approach; relying on the data of modern pedagogical and psychological science; various sources of pedagogical, psychological information;
- A comparative analysis of the data obtained using various independent methods of pedagogical research, adequate to its subject; focused analysis of real pedagogical practice and positive experience;
- The complex nature of the phased pedagogical experiment; confirmation of the conceptual consistency of the use of methods corresponding to the tasks and specifics of the stage of research work;
- Confirmation of the hypothesis by specific theoretical and practical results, the achievement of positive results in the learning process.

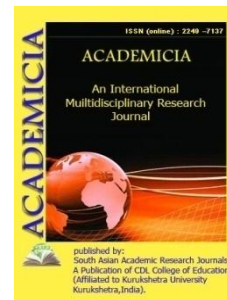
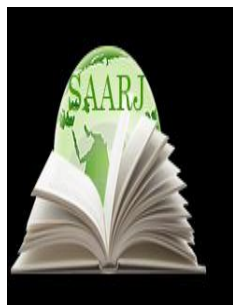
## V. CONCLUSION

The practical significance of the study lies in the fact that methodological recommendations on the use of the identified forms, methods, means of forming the most important professional qualities of students can be used in tourist universities. As part of the study, integrative programs for the study of various subjects have been developed and implemented that contribute to increasing the efficiency of the formation of the most important professional qualities of a specialist.

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## THE IMPORTANCE OF USING A NEW PEDAGOGICAL CONCEPT IN THE RAPID AND EFFECTIVE TEACHING OF A FOREIGN LANGUAGE AT THE PRESENT TIME

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### ABSTRACT

*This article is about learning a foreign language about the use of a communicative approach and ways to apply the concept quickly and effectively for foreign language learners. In each assignment, "What did the student learn?" but "what was the student able to do?" or did he / she have the competence appropriate to the purpose of the lesson? the question is asked. Virtual control is in the hands of the teacher, as long as the student chooses what and how to learn individually. Because English-speaking classrooms typically had students with different levels of language proficiency and language skills, it would be difficult for a teacher to interpret the same content, i.e., a high level of language proficiency.*

**KEYWORDS:** *Communication, Apply The Concept, Mooc, Moodle, Blogging, Textbook, The Role Of The Learner.*

### INTRODUCTION

In today's fast-paced world, science and technology are also growing rapidly. Development in every field is moving forward. In particular, great changes are taking place in science. Delivering each subject to students using new innovative pedagogical technologies is one of the main requirements of today's education. Especially after the adoption of the Resolution of the First President of the Republic of Uzbekistan Islam Abduganievich Karimov dated December 13, 2012 No PP 1875, the attention to the teaching and learning of foreign languages in our country has increased. A new stage, a new era in the teaching of foreign languages has begun in our country. The use of advanced pedagogical technologies, interactive, innovative methods, communicative media is required in the process of teaching foreign language lessons.

**Main part**

New methods and requirements for foreign language teaching in the country have been developed in accordance with the Recommendations of the European Framework for Assessment of Knowledge and Skills of Foreign Language Teachers (CEFR). According to him, textbooks have been created for high school and university students. In accordance with these requirements, classrooms are equipped with stands and new information and communication technologies. The demand for learning a foreign language is growing day by day.

Foreign language science is divided into four aspects (reading, writing, listening comprehension and speaking), each of which provides specific concepts and skills. Educational technology is the effective use of modern information technology in the educational process. It also aims to improve the quality and effectiveness of education through the introduction of modern innovative technologies in the educational process. The role of modern technology in language learning and teaching is invaluable.

Nowadays, in our society, among people of different ages, "How to quickly and effectively learn to communicate in English?" and "What is the role of age in language learning?", "Is language learning more effective in educational institutions or in the country where the language is being studied?" Among the most frequently asked questions are: "How to use 45-80 minutes effectively?", "How to effectively cover students with different language skills in one classroom?", "How to reliably assess the results achieved by students?" In addition to questions such as "What social sites do students use their free time effectively or inefficiently?", "What is the role of the language learner in this socialization?" "How much did I show my knowledge and skills today, but how much did I help the student to learn?" Questions such as the difficulty of time for more communication in the classroom for language learning and the difficulty of controlling the student's time outside the classroom encourage us to research, refine our methods and techniques.

Under the influence of similar questions and difficulties arising in the classrooms where English is studied, modern communicative methods of language teaching are analyzed, based on world experience, as well as the Law of the Republic of Uzbekistan on Education, The pedagogical concept was developed with the use of pedagogical experience in teaching foreign languages by studying the decisions of the President of the Republic of Uzbekistan, the state educational standard, principles and concepts of pedagogy.

Based on this concept, it is important for English learners to communicate freely in foreign languages, to facilitate the formation of the necessary communicative and linguistic competencies to achieve effective results, as well as to use the 80-minute lesson effectively and with emphasis on English communication; ideas of communicative approach are offered.

This communicative approach, called "rotation", has a unique style in which the student's role in the classroom, which is widely used in traditional language teaching, moves out of the classroom, and homework moves into the classroom, and therefore this approach is called "rotation". This approach supports the following pedagogical processes:

- ✓ The main principle of advanced pedagogical technology is teaching to read, not to teach;
- ✓ Education is the activity of creating knowledge, skills and competencies;
- ✓ The teacher is the leader and the manager;

- ✓ Communicative - the ability to join the community, to communicate;
- ✓ Homework - the formation and strengthening of knowledge and skills.

This proposed concept is partially similar to the sequence of seminars in the traditional language learning approach, as theoretical knowledge is acquired in lectures and reinforced in seminars. In a rotational communicative approach, lectures are studied at home, outside the classroom, and discussed in the classroom.

It is obvious that the lectures are communicative and interactive. This approach may be used differently by different teachers, but through this concept we can describe the correctness of this approach as follows.

The circular communicative method is subject to 4 basic regimes:

1. Environment: Ensuring a diverse learning environment by the teacher;
2. Choice: The student chooses a study option according to their abilities and skills;
3. Content: Emphasis on the content and competence of the knowledge or lesson to be studied;
4. Assessment: Teacher supervision, support and assessment.

**1. Environment:** Ensuring a diverse learning environment by the teacher. When the environment is chosen in the first place, different learning environments and places are offered for language learners: - textbook environment; virtual environment; distance learning environment; scientific environment. The student determines when and where to study the content of a new topic according to the given task environment. That is, the following places can be selected: Textbooks and articles, moodle; mooc; virtual 3d digital formats; webinars and social networking groups. The role of the teacher: - Organization of space and time frames: control of student communication and work on google drive, mooc, moodle and blogs. In such software, of course, each student is registered and must complete the assigned tasks. The teacher monitors this process.

**2. Learning environment to create a choice and individual approach:** The student chooses a study option that suits his abilities and skills and learns outside the classroom in the order of his choice. That is, in the traditional approach, the teacher is in the lead role and the teacher is the main source of information, in the circular approach, information is obtained from various sources. The role of the teacher: - The teacher must now be able to choose a strong educator and act as an expert to confirm the accuracy of the information. - The teacher is not the main informant, but he is an expert instructor who leads from easy to complex and sharpens thinking, ensuring the sequence of tasks.

**3. Content:** Formation of the content and competence of the studied knowledge or lesson. This process ensures that learners have a conceptual understanding or understanding of the main content of the lesson and that the lessons are interrelated. In each assignment, "What did the student learn?" but "what was the student able to do?" or did he / she have the competence appropriate to the purpose of the lesson? the question is asked. Virtual control is in the hands of the teacher, as long as the student chooses what and how to learn individually. That is, the use of the moodle system, distance learning courses through mooc, feedback on questions on the blog, the implementation of tasks given by the teacher through the Google drive facilitates the current assessment. In the classroom, it saves more time for the student to communicate, develops

critical thinking in the context of debates, and builds knowledge and skills. In addition, the fact that the content of the lesson is taken from different sources enriches the learning process in the classroom. The role of the teacher: - The concepts, concepts and terms to be studied are identified by the teacher as a priority. -required video and audio recordings, ppt presentations are formed and selected by the teacher -facility and stages of independent study of the course content are developed for students -the studied content is also transparent for the student's parents .

**4. Assessment:** Teacher supervision, support and assessment. The role of a qualified teacher is very important here. In the traditional communicative approach, the teacher is the source of the information, so he or she communicates what he or she knows to the students. In a rotational communicative approach, students share what they have learned with the teacher and the audience. At such times, sometimes the teacher also learns from the student. In order to better cover and properly assess such cases, the teacher is required to have the skills, knowledge and a broad outlook. The role of the teacher:

- Virtual control is always carried out.
- In the classroom discussions, the student's communicative and linguistic, pragmatic competencies are monitored; the student is supported and evaluated
- For students working individually, in small groups and in pairs, the teacher is present at the right time gives value and directs correctly.
- Strengthens cooperation with other teachers and takes responsibility for the continuous improvement of their skills and experience.

In summary, in this communicative approach, the lecture is studied at home and the analysis is performed in the classroom with the teacher and the audience. The lecture, which should be studied at home or outside the classroom, can be watched by the student as a video or ppt presentation, studied and discussed with peers.

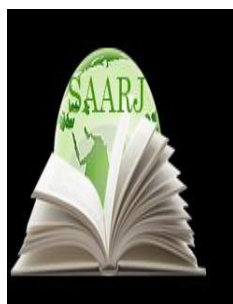
The student takes control of the learning process, that is, he receives information from different sources and shapes his knowledge, not from one teacher. Speaking a foreign language is an effective way to develop speech. In the classroom, the teacher can spend more time with the student. The teacher is the instructor communicator in English, and the student and the audience are the main communicators.

## CONCLUSION

In the classroom, the student is not a passive learner, but an active participant. Discussions and critical student questions naturally take place in the context of extracurricular learning. Because English-speaking classrooms typically had students with different levels of language proficiency and language skills, it would be difficult for a teacher to interpret the same content, i.e., a high level of language proficiency. No language teacher can deny that students who are bored in the classroom or that student with low language skills do not understand the subject. In the rotational approach, each student is approached individually, and students who have been prepared for the classroom by studying the content in advance naturally develop confidence in their knowledge, and natural communication is formed in the classroom.

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## LEXICAL TYPOLOGY, INTERCONVERSION AND LEXICO-GRAPHIC INTERPRETATION OF ZOONYMS IN UZBEK AND ENGLISH

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### ABSTRACT

*This article is devoted to a mutual lexicographic study zoonyms translating methods in literal and figurative meanings using the example of English and Uzbek languages. The article identifies and characterizes zoonyms translating method features from English into Uzbek, and from Uzbek into English, as well as their connotations study.*

**KEYWORDS:** Zoonym, Domestic Animals, Phraseological Unit, Component, Mifememe, Zaosemism, Unit, Appearance, Lexemes, Translation, Meaning.

### INTRODUCTION

Zoonyms, widely represented in all languages of the world, are among the most ancient and actively used vocabulary. Compared to other objects of the surrounding world, animals are closer to man in terms of forms of existence and corporeality. Of living beings, only animals, like people, have their own habits, behavioral features, each has its own special disposition. Due to this, the inclusion of knowledge about the animal world into the system of figurative means characterizing a person, the expansion of knowledge about the person himself through the search for similarities with the images of our smaller brothers is a natural way for a person to understand himself.

The term "zoonym" was introduced into linguistics in the 60s. XX century. Some scientists use this definition to describe an animal or living creature related to the animal world [1]. Others believe that this term can hardly be used to name animals, since it is more logical to leave it for the nicknames of animals (Barbos, Bobik, Zhuchka, Mukhtar, Murka), which in their main vocal function are close to personal names and nicknames of people.

Verdieva Z.N. classifies zoonyms as "mythimems" - words that have a double meaning, simultaneously functioning in two planes: in terms of language, where they retain their lexical meaning, and in terms of metalanguage, where they act as elements of a secondary sign system that can arise only from connections of these elements. This phenomenon is due to the fact that the concept "zoonym" is used to designate a proper name, in this case a nickname, and for a common noun, designation of an animal [2].

And N.V. Solntseva regards the "zoonym" as a "general vocabulary unit, which, on the one hand, can take the "form" of zoosemism, the actual name of an animal (mammals, birds, insects, etc.), on the other hand - zoomorphism, its figurative, metaphorical a variant projected onto a person, characterizing and evaluating him from different angles of view "[3].

A huge number of works by linguists from different countries are devoted to zoonyms, each of which is invaluable for the study of zoonymy and the development of zoonymy. Different approaches to the concept of "zoonym" indicate that animal nicknames attract the attention of linguists, their place in the onomastic space causes a lot of contradictions. Currently, there is no specific classification of zoonyms, since some linguists associate this term with one species of animals, or one locality, or identify specific characteristics of zoonyms or their types.

Zoonyms are complex linguistic units that are often used in speech, both written and oral. In zoolexics, the features of the comprehension of extra-linguistic reality are clearly displayed. This is proved by the fact that images of animals are endowed with unmotivated properties. These images are turned into the depths of human consciousness, its beliefs and mythology [4].

In all languages of the world, zoonyms in their lexical meaning have special connotative features that serve as the basis for metaphorical nomination. The nature of the concept of "word meaning" is complex and multifaceted. Internal nomination at the level of word structure is associated with lexicosemantic motivation. That is, how the object gets the name itself, how the selection of characteristics and properties takes place.

English phraseological units with a zoonym component is a unique material that allows you to see how these components affect the formation of a national-cultural seme.

In English, the set consists of the more typical plural zoonyms. Most popular animal nicknames: Max, Maggie, Buddy, Jake, Sam, Molly, Coco. Among the sources of the formation of zoonyms in English, the following groups can be distinguished:

A) multipleanthroponyms. In this case, the so-called derivatives are used in English - abbreviated forms (Mag, Sam, Ben), and diminutive suffixes -y, -ie (Maggie, Molly, Sammy);

B) single anthroponyms - the names and surnames of famous people of the present and past times, as well as various characters in literature, cinema. For example: Nefertiti (queen of Ancient Egypt); Nixon (surname of the former President of the United States of America); Capone (surname of the famous gangster); Athena, Venus (Greek goddesses);

C) toponyms and astrononyms: Egypt, Nile, Alaska;

D) trademarks, names of products, products; Cadbury (brand of famous chocolate), Havana (brand of cigars);

D) common nouns. Most often used to emphasize a specific characteristic or any association with an animal. For example: Danger, Honey, Blackberry [5]. If a zoonym is in the status of a nickname for animals, it acquires a secondary nomination, that is, it again becomes a common name.

In different languages, similar images are associated with the names of animals. The fox is considered a symbol of cunning; wolf - stinginess; pig - mud; snake - betrayal; bear - clumsiness; monkey - guile and dexterity; lion - courage and strength; goat - tranquility; donkey - nonsense. Thus, on the basis of animal images, equivalents in different languages are selected, which sometimes coincide, and sometimes radically differ in meaning due to intercultural differences. The translation process must take into account the differences in the linguistic and cultural spheres.

The most common zonyms in the Uzbek language can be divided into two groups: mythical animals and real ones. The most common are dog(it), cow(sigir), horse(ot), a hen(tovuq), sheep(qo'y), duck(o'rdak) and a donkey(eshak). Mythical animals are: dragon, giant (div or deva), flying horse.

Most often, these zonyms carry in their connotation some kind of omen, less often a certain characteristic of a person.

Flying horse (Ucharot) - is a symbol of strength, courage and nobility.

Dragon (Ajdar) is a legendary mythical creature that is a symbol of evil. In fairy tales, epics, one of the obstacles on the path of the protagonist.

In the Uzbek language, the phenomenon of enantiosemy is often encountered - the assignment of an opposite meaning to a word. This can be seen especially clearly on the example of the zonym fox (tulki). This word in the Uzbek language evokes the following association: a person who is very cunning: Sly as a fox (Tulkidekayyor) - Sly as a fox.

To express a bright negative color, as a rule, the zonym cat (mushuk) is used. As a rule, these are stylistically reduced phraseological turns. In European culture, the cat, on the contrary, is a symbol of tenderness, peace and family comfort.

The analysis of zonyms shows that the culture of Uzbekistan is rich in a variety of materials related to zonymy. Discrepancies in symbolism are dictated by natural conditions, religious traditions, and of course with the tendencies of the nomination underlying the language. The symbolism of zonyms directly depends on the place of animals that they occupy in human life, their inherent qualities and properties.

In linguistics, zonyms have been studied very poorly, and the issue of their transmission in translated texts is extremely acute. Consequently, in the English language, the categorization of the genus of zonyms can be considered an arbitrary phenomenon, since formal characteristics are absent in the nature of the semantics of this language. The zonym can be related to both the feminine and masculine gender, depending on the intentions of the author, the norms and traditions of the cultural society. When translating zonyms into Uzbek or from the Uzbek language, one should take into account the cultural characteristics of a given country. Since the nominations of the same zonym in different cultures vary and sometimes carry completely opposite meanings [6].

Zoonyms have been studied rather poorly in the literature. The issue of their transfer in translated texts causes a lot of controversy. The problem with translation is primarily motivating nicknames. That is, if a nickname is derived from a common noun or from a word or expression that characterizes it, then the meaning of the original word or expression is extremely important for translation. Very often the transfer of this meaning causes a conflict with the individualizing function of a foreign language, which requires the preservation of its uniqueness.

The nature and situation of translation dictates the translator's approach to the transfer of zoonyms. When writing, oral translation of journalistic, scientific and technical texts, onomastic correspondences are used, which convey the external form of the name close to the original. This allows the listener to understand that the animal, the carrier of the zoonym, responds to this complex of sounds. If the translator also considers it necessary to explain the motivation of the nickname, he can use a clarifying translation, explaining the semantic connotations [7].

But literary texts are translated in a completely different way. In this case, the identification function of the zoonym does not carry a semantic load, and in the case of fairy-tale animals it is completely absent. If the motivation and other connotations are clear and transferable, transformative translation is possible, that is, with conformity to one form or another. For example, you can take the literary work of Jack London and his hero White Fang - White Fang. In Uzbek, this zoonym is transmitted as "oqsoyloqtish" (oqsoyloqtish) (oq – white; soyloqtis - fang).

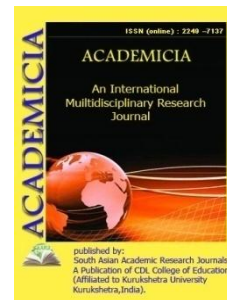
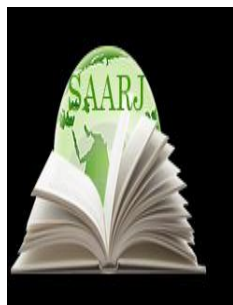
If the zoonym has no semantic connotations, then an onomastic correspondence should be selected, that is, the sound as close as possible to the original word. The names of fabulous and allegorical animals are very difficult material for translation, since zoonyms in this case are humanized: they sleep and eat, live in houses, work and wear clothes. Hence, from a linguistic point of view, the names of the characters are analogous to anthroponymic nicknames. Some authors achieve this through play on words, accords, associations, subtext. In fairy tales, the common nouns of animals pass into proper names and in this case they are written with a capital letter and are used without the definite article the. For example: Cat, Dog, Fox. The use of a zoonym without an article emphasizes its transition to a common noun in a foreign language and does not carry any semantic background. Also, in such cases, there is an association with a particular gender.

When confronted with personalized animals that are associated with different genders, the translator often has a problem. In such cases, there is a replacement of one type of animal for another, since we see a conditional allegory of human character and habits. Therefore, a specific image of an animal can be modified. In practical terms, the problem arises of the lack of description of folklore characters in comparison with characters of foreign language folklore.

The study of zoonyms is extremely interesting in that the signal transmitted by linguistic expression is amplified and thus isolated from the general stream either due to the unusual stylistic use of linguistic means, or through the intensification of the quantitative or qualitative aspects of the designated this expression, and serving as a stimulus for a positive or negative reaction of the recipient.

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## EFFECT OF GENTLE HATH YOGIC PRACTICE'S ON GENERAL WELL BEING AMONG PARAMILITARY PERSONS

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### ABSTRACT

*This study aimed at exploring the beneficial effect of a Yoga Training on general well being among those persons who are responsible for the secure nation, The I.T.B.P. (INDO TIBETAN BORDER POLICE FORCE ). This study is held at 15<sup>th</sup> Bn, Udhampur (Jammu & Kashmir) .the yoga program range is 5 days, scheduled one session of one and half hour each day in the morning. The program consisted of an integral yoga practice which included selected Asanas, Pranayama, Meditation and Shavasana. A sample of 40 Paramilitary personnel are the rank of jawan (below than sub ordinate officers) participated in the study. The measuring of general well being of Participants is completed before and after the training program by the test applied was **PGI General Well Being**. Result revealed that participants experienced a statistically non significant at 0.05 significance level. But the finding suggests the beneficial effects of yoga practices for the defense persons and reduces the psychological complexities.*

**KEYWORDS:** Yoga Practice, Hath yoga, Para military, General well being.

### INTRODUCTION

Yoga is a physical, mental, and spiritual discipline, (yoga-shrujal, 2016) originating in ancient India and systematized by “**Maharshi Patanjali**” in his great work “*Patanjali Yog Sutras*” (Formulas of union with the supreme soul). The literal meaning of the Sanskrit word Yoga is 'Yoke'. Yoga can therefore be defined as a means of uniting the individual spirit with the universal spirit of God (CCRYN, 2016)

People live in a variety of situations and they do not feel the same way about life and the world around them. From a practical view point, It is important to know how the persons feels with regard to their day-today concern. People live in a variety of situations and they do not feel the same way about life and the world around them. So, it is important to know how different persons feel with regard to their day-today concern. As a whole this is known as general well being. (Malathi,A. et.al., 2008)

An important study among the army personals say`s that practice of yoga can significantly lower the occupational stress among the army *jawans*. (Adhikari, 2008)

A research officer of Defense Institute of Physiology & Allied Sciences (DIPAS) suggests: “In the highly stressful environment in all branches of armed forces i.e. in the army, navy, air force, paramilitary forces and among police personnel it (Yoga) has application.” (Ray, 2007)

A study conducted on the students of post graduation in yogic science also showed the positive effect of Yoga nidra for reducing stress & anxiety which is responsible for improving overall well-being in college going student`s. (Kumar, 2004)

Also yoga can significantly increase the cognitive function including Active Attention Mindfulness component as well as sense of well being in the healthy seniors. (Oken, 2006)

Although various researches were done worldwide on the beneficial effect of yoga;

But there is a lack of research studies on the yogic impact on the paramilitary personal`s who lives in the extreme adverse climate and high alert situations of Kashmir. This study to examine the significance of yoga to solve the problems related to the *jawan*.

### **OBJECTIVE OF THE STUDY:-**

The objective of this study is to investigate the impact of yogic practices on general well being.

### **HYPOTHESIS:-**

“There is no significant correlation between the gentle hath yogic practices and the level of general wellbeing”

### **RESEARCH METHODOLOGY:-**

#### **[A] PARTICIPANTS**

This study was conducted on the 40 samples from 15<sup>th</sup>Bn,Udhampur of I.T.B.P.(Indo Tibetan Border Police) Force. The Participant of the yoga camp are ranked are *jawans*. None of them are Practicing Yoga or any other type of activities during the research study.

#### **[B]PROCEDURE**

We applied a specific yoga Training Program on subjects especially designed for Relaxation &Health Enhancement.

This Program scheduled for one hour in the morning time for 7 days .This yoga program consist of gentle Hath yogic practices include Asanas, Pranayama &Meditation.Asanas were practiced with 5-10 sec. holding &required relaxation were done in *makarasana* & *shavasana* according to the asana practice.

**[3] MEASURES**

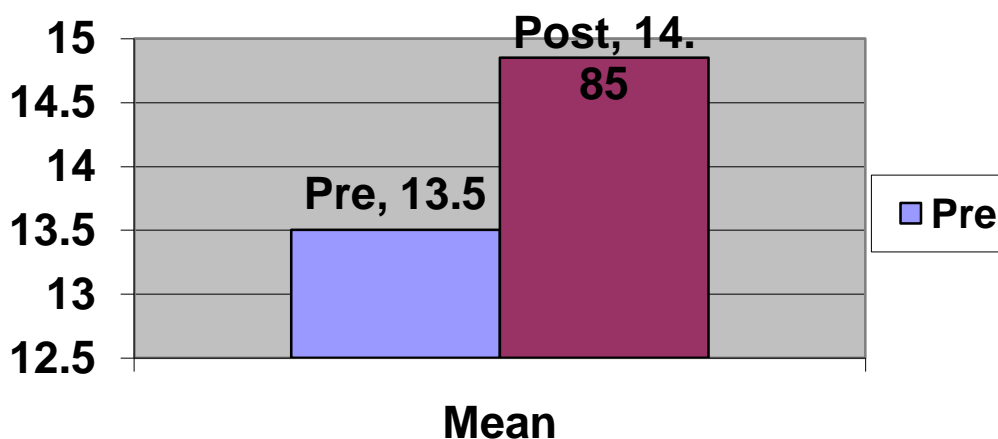
To measure the General well being the test applied was **PGIGWBM** ( *PGI General Well Being Measure*)(developed by Dr. Santosh K.Verma and Ms. Amita Verma, PGI Chandigarh) (Moudgil, Verma, Kaur, & Pal, 1986)

**[4] HYPOTHESIS:-** “There is no significant correlation between the gentle hath yogic practices and the level of general wellbeing”

**RESULT TABLE:-**

<i>Status</i>	<i>Mean</i>	<i>N</i>	<i>SD</i>	<i>SE<sub>D</sub></i>	<i>df</i>	<i>t-value</i>	<i>Level of significance</i>
Pre	13.5	40	0.42	0.71	39	1.90	Non Significant At 0.05 level
Post	14.85	40	0.40				

Result is Non significant at .05 level

**Graphical Representation:-****DISCUSSION & INTERPETATION**

Various research studies suggest a number of areas where yoga may be Beneficial along with this may now in the Defense area can also Included. Yoga is was effective in reducing state and trait anxiety as this may be use as a proactive combat stress management. (Stoller, Greuel, Cimini, Fowler, & Koomar, 2012)

Here, Result show`s that the intervention is non-significant due to the small duration, but yoga effect Positively this thing can be seen in the elevation of the average mean.

This may be due to the life style of *jawans* which is very unpredictable and hectic life full of risk. They also live far away from home so they have no much time to interact with their family. This also effect well being

Difficulties in field area are giving rise to many psychosomatic problems such as anxiety, tension and emotional upsets in day to day life. This may lead them towards low wellbeing.

Anyway yoga may be helpful to elevate their well being because yoga contains those procedures that are directly related to the well being. The first step in Pranayama is to tune into the rhythm of the breath and regulates it. A smooth, slow rhythm usually indicates relaxed state of body and mind. Irregular respiration usually means tension. In anxiety the breath is shallow and rapid, in anger short and forceful, in grief an Arrhythmic and gasping, and in depression sighing. Irregular breathing is also associated with the neurosis and disturbed mental state. Slow rhythmic breathing creates feelings of relaxation, alpha brain waves and reduced muscle tension. Nadi shodhan Pranayama helps to balance breathing

Conceivably, Asanas particularly have a positive effect on fitness and physical flexibility with a secondary effect on the mental state, while the Pranayama practices and relaxation/meditation techniques may result in greater awareness, less stress, and higher well-being and quality of life. (Büssing, 2012)

A positive feature of yoga interventions is that they may in fact be very supportive for the execution and maintenance of Essential lifestyle changes due to the experience of well-being from the practices which can support regular practice, and from the changes in mind/body awareness that occur over time with continued yoga practice, which will in turn support a desire to adopt and maintain healthy behaviors

## CONCLUSION

Here, it can be said at the end of study or research that “Effect of Gentle Hath Yogic practices on the level of general wellbeing among Para military personals” The recent study had been complete with non significant result

It can be said that work pressure, overtime and extra work load directly affect the level of stress of the army persons and thus they are physically and mentally affected by it, as a result this will effect on the wellbeing of an individual.

## SUGGESTION FOR FURTHER RESEARCH

- Effect of Yogic practices varies with the person to person and various varieties of the yogic parts also. So to build a package for a particular disease requires working in depth. Very general aspect stress and relaxation was taken here. Human nature is dynamic so it's very difficult to generalize a result.
- There is minute sample size in this project work. But further research would increase the sample size. By which the result would be more reliable and which can be generalized.
- In this field study dependent variable is well -being. In additional research dependent variable can be changed, as job satisfaction, mental health, psychological well-being, emotional health etc.

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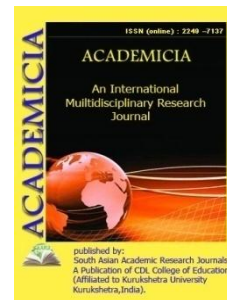
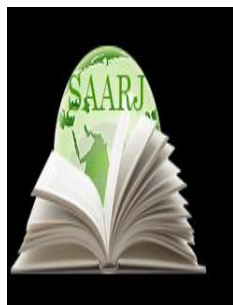
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## COMPUTER OPPORTUNITIES IN THE DEVELOPMENT OF THE THEORY OF MUSICAL LITERACY

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### ABSTRACT

*The versatility of the topic is evidenced by the fact that it is up-to-date and at the same time, this article focuses on how computer technology can be used widely. In addition to music theoretical knowledge, there has been an attempt to prove that the educational technology in the note system is one of the main ones. The topic is directly related to pedagogy.*

**KEYWORDS:** Technology, Pedagogy, Song, Reader, Activities, Music, Thought, Sound, Kids, Lad, Creation, Composer, Performer

### INTRODUCTION

Thanks to independence, our great ancestors began to revive our rich spiritual values, our spiritual heritage based on our unique and attractive culture that spans millennia. We have returned to our native language, the religion that purifies our spirits, and our national traditions and customs, all our values representing national culture, such as national art, folk art and music, are reviving. Public education should deliver well-trained music teachers to schools, bringing them to the forefront of music, technology, and the introduction of large-scale music education. To fulfill the requirements of this musical-technical system it is necessary to introduce the students with the content of music education, to work with them in notes, to sing in their own voice, to be able to feel the words without words.

**Main part.** The concept of technology is derived from the Greek word "techne", which means skill, craftsmanship and logos. Technology is a set of systematic methods that can lead to qualitative changes in the production of efficient tools.

Pedagogical technology is a systematic way to create, apply, and refine the entire learning and learning process, with an emphasis on human and technical resources and their interrelationships, to optimize educational models. (UNESCO) "Pedagogical technology is a system of continuous

development of pedagogical activity aimed at educational goals and personality development" (N. Azizkhodjaeva).

Pedagogical technology is a unique innovative approach to the educational process. It is an expression of the idea of social engineering in pedagogy, the standardization of the teaching and learning process, and the concept of designing the optimal design. In particular, there is a need to refuse teaching methods and use computers, technical means of education, and the student's supervisor, organizer, consultant, student-teacher, teacher to achieve the final result. The most important thing is that teachers have the opportunity to organize their own independent work, and most importantly, the teacher can achieve almost the same result. It is especially important in the current era of training, which is unified by the unified state educational standards, which meet the standards of all countries of the world.

According to M. Rakhmonov, a theater scientist, "In the early stages of human history, music also appeared inextricably linked to pantomime and dance. It is an integral part of the life and work of the primitive society people living in Uzbekistan. The first songs in the primitive era were very simple. The "music" and "songs" that play pantomime dance games at various ceremonies are mostly composed of repetitive melodies and words. "[1.49]

The Greek historian Herodotus wrote about the Massaget people who danced and sung around the fire [2.201-202].

When the educational process is organized on the basis of pedagogical technologies, the learning objectives are set or projected, the expected end result is a positive quality change, a repetitive cycle of the learning process, a fast feedback loop, the learning objectives, the learning The process will continue to be adjusted.

The idea of the project of standardization of pedagogical process was put forward by Ya.O.Komensky, a Slavic teacher of the 16th century. In his famous work, The Great Didactic, he wanted to put in frame the educational process so that "every method and thing in time" should be arranged in such a way that "the whole pedagogical process runs smoothly as a clock" The great dream of the great teacher Ya.Komensky came to the dream of teachers of the 20th century and created the pedagogical technologies. In the 21st century, this social reality is called innovative pedagogical technology and serves as a program for educators around the world.

Today, effective use of scientific and technological advances requires continuous improvement of the education system and culture, and computers, undoubtedly one of the greatest achievements of the twentieth century, play an important role. Therefore, it is important to equip young people with secondary education in this area. There is a growing use of computer technology in high school students to enhance their music literacy. The president has set a number of important tasks to enhance the spirituality of young people and meaningful leisure activities. A videoconferencing session was held by the President of the Republic of Uzbekistan Shavkat Mirziyoyev on March 19, 2019 to address the issues of youth involvement in culture, arts, physical education and sports, the application of information technologies. 30% of the country's population are young people between the ages of 14 and 30. There are all conditions for their education and training. At the same time, the organization of meaningful leisure of young people is a pressing issue. The more mature young people are, the stronger their immunity to bad diseases. As you know, the President of the country put forward 5 important initiatives on social, spiritual and educational activities.

As you can see from the foregoing, our country has a lot to do with art. "In the future, Uzbekistan should admire the world, not only with its highly developed economy, but also with its educated, spiritually mature children." It is likely that the first President Islam Abduganievich meant that music played a leading role in bringing up spiritually mature children.

It is imperative that young people studying in schools have access to general secondary education but also enjoy traditional music. Computer training of Muhammadjon Mirzaev's "Spring Waltz" by using computers to enhance listening and thinking abilities of students gives them a sense of taste and elegance. It is very important to increase the passion for music.

Usually music and music are not discussed. They are not saying that computer music is replacing human music. But a computer can do many things. It is a unique instrument that helps analyze music. It helps you analyze the different sounds of nature and divide them into specific groups.

In addition, the computer can do the hard work of copying notes from one end to the next. It is possible to play the music similar to that of a computer model. It helps the musicians to identify their common and distinctive features by analyzing their playing style. The implementation of new computer programs has caused composers to look at computer capabilities from a different perspective. Because the computer produces and manages sound in a new way, it allows you to use and control the acoustic space.

According to the composers, new programs and new sound synthesis techniques bring the music closer to science, so that previously considered scientific activities are now performed by composers who are trying their luck in electronic music. This allowed us to determine the nature of the regular processes in music, that is, to compare analytical and synthetic beginnings, to describe hypothetical signs in music: the composers who identify which composers were drawn to the acolytic or synthetic poles.

While modern computers can sort existing music, and the computer can create new sound structures, play composers or performers, there is no need for a feature that is the most important. The computer can create hundreds and thousands of songs, but it can't proudly say, "This is the best piece I've ever written!"

Taking into account the capabilities of modern composers, we have created several applications. These programs give you an excellent opportunity to listen to music in the early grades. We will cover this in more detail in the following sections.

Universal computer literacy is one of the most complex and pressing problems of our economy and public education. To date, there is no regulatory framework and no single-purpose planning is being implemented. Applied Informatics is still being developed. The pedagogical and psychological problem of exposure to computers in normal school is not adequately addressed.

The computer can act as a catalyst not only for technical development but also for personal development and training. Computer-aided socialization is a key condition for the rapid growth of our culture. All we have to do is to help them realize their full potential.

A vigorous approach to education identifies promising areas of psycho-pedagogical research that focus on an independent learning system, creating new content and information technology, and psychological education. is aimed at delimitation. The programs of these studies should include the curriculum, which is not designed on a supervisory basis, but also includes computer science-

based disciplines. A specific analysis of the use of computers by the age of the student should be undertaken.

It is now proven that children can be taught computer science at the age of 2-3. That is, at this age the child will have various operations. It is also advisable to use the computer during the learning process for children aged 6 to 12, with no restrictions on the activity and creativity of the child. It promotes the learning process of adults and children as a group based on its play activities. The development of student learning and learning methods in the use of computers at different stages of the school curriculum will be the main focus of research.

In addition to developing other key cultural and technical skills, it includes basic computer literacy, such as computer skills and practical skills development. These skills allow the child to learn keyboards and to have a direct influence on the elements that appear on the computer. The relative freedom to program their actions should not require the child to remember complex planning and long sequences. At the same time, the child's movement must include specific practical actions. Computer programs recommended for this age are not recommended for linking to school subjects with different content. It should be integral to provide the child with a solution to the task. For a child of this age, it is very important to play the game well. This activity is based on the widespread use of computer networks by identifying teachers and students, as well as the students themselves.

At this age, the computer is used not only as a specialized science ("computer science and computing techniques"), but also as a semi-functional device for editing texts, conducting laboratory experiments, and developing practices and designs. At this stage, students take the computer as a source of information, calculator, text editor, and modeling tool.

Programming training is not based on professional skills, but on the logical analysis (algorithmization) of a particular area of knowledge. This, in turn, helps these children learn and develop their own independent thinking, such as planning, analyzing, reflection. Recommendations for school psychologists and psychologists on child development, computer correction of educational activities and computer diagnostics. Thus, the focus of research on this problem is the technology of psychologically based learning. This educational technology includes the use of computers in science education and joint and individual student learning activities such as computer models.

One of the main factors in the antiquity of Uzbek folk songs is that they are based on a lad system. However, it should be noted that the analysis of ancient songs is a difficult task to base on modern music theory. According to E. Alekseev, terms in the advanced ladotonal system (dominanta, subdominanta, medianta, etc.) cannot be successfully used in ancient folklore samples [3.38]. In many ancient folklore, it is virtually impossible to identify the lad system. This is because in ancient forms of melodic singing there is some uncertainty in the arrangement of the lad. In particular, the concept of lad was not yet fully formed at the time these songs were created. Therefore, using the method of E. Alekseev, we also use the phrase "backdrop" to determine the composition of children's songs.

Music scientist E. Alekseev comments on this: "According to many theory about the earliest formation, there is a one-sided conclusion: the oldest of these are only narrow-banded sequences. Lads are found in ancient layers of folklore, including children's lyrics, ancient ritual songs, and household words "[4.35] (for example, children's song "Zuv-zuvboragay"). According to the

musicologist N. Pereverzev, "the reason for this was that the formation of a simple musical system was, for the first time, by the selection of sounds that are closely related to the volume of hearing."

Expert scholars such as Ye.Y.Romanovskaya, I.I.Zemsovsky, N.A.Metlov also comment: "Children's songs are composed without musical instruments, which are mainly used for children's voices. The most common (mainly the second and quart) tones are the ones that are used extensively [6.887-903]. " In particular, in the song sequences, the quintet-containing children's folklore is an example of this.

The majority of children's songs have their own lad structure, which features angemitonics [7,137] that can be found in the ancient layers of folk music. These lads, consisting mainly of three (trichord) and sometimes four (tetrachord) sounds, are related to the expression of the child's tone pattern.

We have no right to discuss music and creativity. They are not saying that machine music is coming to replace human music. But the machine can do a lot. It is a unique instrument that helps analyze music. It helps to analyze different sounds of nature and divide them into groups. In addition, the computer can do the hard work of copying notes from one end to the other. It was possible to play a musical model similar to that of a car. It helps the musicians to identify their common and specific features by analyzing their playing style. The implementation of new computer programs forced the composers to look at machine capabilities from a different perspective. This is because the machine produces sound in a new way and controls the volume, allowing you to use and control the acoustic space.

According to the composers, new programs and new sound synthesis techniques bring music closer to science, so that previously considered scientific activities are now being done by composers who are trying their luck in electronic music. Thus, it was possible to determine the nature of the regular processes in music, that is, to compare analytical and synthetic beginnings, to describe hypothetical symptoms in music: to include composers to determine which composers were drawn to the acolytic or synthetic poles.

Even though modern computers can distinguish existing musical compositions, the machine can create new sound structures, or play a composer or performer, it does not need a single feature, the most fundamental feature. The machine can generate hundreds and thousands of tracks, but it can't proudly say, "It's the best piece I've ever written!"

Taking into account the capabilities of modern composers, we have created several applications. These programs provide an excellent opportunity for early listening to music. We will cover this in more detail in the following sections.

Universal computer literacy is one of the most complex and pressing problems of our economy and public education.

To date, there is no necessary regulatory documents and no single-purpose planning is being implemented. Applied Informatics is still being developed The pedagogical and psychological problem of the use of computers in traditional school is not adequately addressed.

The computer can be a catalyst not only for technical development, but also for personal development and training. Computer-aided living in the school desk is the key to the rapid growth of our culture. We just need to help them realize their full potential.

A vigorous approach to education defines a promising dimension of psycho-pedagogical research that focuses on a continuous learning system, creating new content and information technology and psychological education. The The programs of these studies should include a curriculum that is not based on a control-based practice, but also includes computer science-based disciplines. It is necessary to carry out a special analysis of the specifics of computer use by age.

It has now been shown that children can be taught computer science at the age of 2-3. That is to say, at this age, the child will have various operations. It is also advisable to use a computer when it comes to teaching children 6-12 years of age when the child's activity and creative potential are not limited. It promotes the learning process of adults and children as a group based on its play activities. The use of computers at various stages of student learning will be the main focus of student development and learning.

**Small school age.** In addition to developing other basic cultural and technical skills, it includes basic computer literacy, such as machine and practical skills. These skills allow a child to learn keyboard shortcuts and to have a clear influence on what appears on the computer. The relative freedom to program their actions should not require the child to remember complex planning and long sequences.

At the same time, the child's movement must include specific practical actions. It is not recommended to use computer programs recommended for this age to connect school subjects with different content. It should be integral and provide the child with a solution to the task. For a child of this age, it is important to organize their learning activities in a playful manner. This activity is based on the widespread use of computer networks by identifying teachers and students and their students.

**Middle school age.** This includes describing "school" science with adults and peers and gaining new knowledge. At this age, the computer is used not only as a specialized science ("computer science and computing"), but also as a semi-functional device for editing texts, conducting laboratory experiments, and developing practices and designs. At this stage, students perceive the computer as a source of information, calculator, text editor, and modeling tool.

Training in programming is not based on the formation of professional skills, but on the logical analysis (algorithmization) of a particular area of knowledge. In turn, these children help them to learn independently, such as planning, analysis, reflection, and independent learning.

**High school age.** Students with extensive knowledge of human activities and computer simulation modeling are more important in community and production, namely, environmental and demographic modeling, staffing, and mathematical problems. modeling and offering solutions, modeling election situations for government, and managing their political and legal awareness. Research on the issue of new pedagogical technologies in children's development and education is expected to develop:

- Principles of development of computer technologies in children's development and education and their psycho-pedagogical bases;

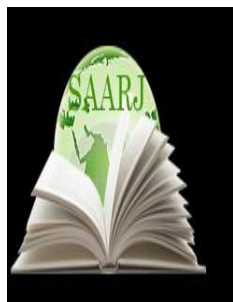
- New science-based learning terms and examples of new computer science subjects;
- Computer models of joint and individual activities of elementary and high school students;
- Computer games that are designed to help children of all ages develop general and special abilities, especially for younger children (6-10 years).
- Control of the use of new educational technologies and computer diagnostics techniques in the process of knowledge and development of schoolchildren;
- Recommendations for developers of pedagogical software tools;
- Practical recommendations for teachers on the introduction of new educational technologies;

## CONCLUSION

Recommendations for school psychologists on child development, computer correction of educational activities and computer diagnostics. Thus, the main result of research on this problem is the technology of psychologically based learning. This technology includes the use of computers in the teaching of science, and joint and individualized learning activities, such as computer models.

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## **TREATMENT OF PATIENTS WITH GINGIVAL RECESSION IN COMBINATION WITH DENTOALVEOLAR ANOMALIES AND DEFORMITIES AFTER SURGERY**

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### **ABSTRACT**

*One of the most difficult tasks in dentistry is the orthodontic treatment of patients with periodontal diseases. The main goal of the treatment is to reduce the functional overload, prevent secondary deformations of the dentition and bite, use of small forces in the orthodontic movement of the teeth. In the treatment it is necessary to take into account the presence of concomitant diseases, the age of the patient, the degree of atrophy of the bone tissue, the number of teeth in the oral cavity, the form of the inflammatory process in the tissues of the paradont, and the stable level of oral hygiene. To achieve success in treatment, an surgical approach is required.*

**KEYWORDS:** *Orthodontic Treatment, Gingival Recession, Periodontal, Malocclusion.*

### **INTRODUCTION**

According to official data, the frequency of occurrence of the small vestibule of the oral cavity according to WHO data is up to 62.6%, and the prevalence of gum recession is from 11.6% in 15-year-old adolescents to 100% in persons over 64 years old (Borodulina I.I. et al. 2006 ; Grudyanov A.I., 2006).

Gingival plastic methods are used not only to eliminate gum recession, but are also used to prevent its occurrence. The size of the attached gum should be taken into account in orthopedic and orthodontic treatment, as well as when planning dental implantation, especially in the case of existing atrophy of the bone tissue of the alveolar process (part) of the jaw. The restructuring of periodontal tissues during such treatment against the background of a deficiency of the attached gums can lead to serious complications, since this feature has a direct impact on the nature of

microcirculation and trophism of regenerating tissues (Yanushevich O.O., 2001; Abo S.G., 2004).

The problem of diagnosis and clinical approaches to treatment, prediction of complications in combined pathology of the periodontium, especially the treatment of pathology of the periodontium in the presence of dentoalveolar anomalies and deformities of the dentition remain poorly understood. Studies of some scientists have studied the mechanism of the relationship between periodontal diseases and dentoalveolar anomalies, deformations, leading to significant disorders of the dentoalveolar system and a decrease in the quality of life of patients [2,3,4].

Recession of the gums is observed with the anatomical and topographic features of the dentition (anomalies in the position of the teeth and occlusion, violations of the architectonics of the vestibule of the mouth, a couple of functions); inflammatory and destructive process in periodontal tissues; mechanical injury (excessive brushing of the teeth with a predominance of horizontal movements and excessive efforts, poor oral hygiene, poor-quality dental plaque removal procedures, surgical procedures); orthodontic activities; chemical and physical damage; as well as age-related changes. In this regard, gingival recession is classified as anatomical (due to the anatomical and topographic features of the dentoalveolar system), physiological (due to age-related changes) and symptomatic (due to periodontal disease) LN Dedov, 2002-2007). In practice, gum recession occurs most often due to periodontal disease or improper teeth cleaning [1].

Elimination of inflammatory processes in the periodontium and grinding teeth with a combination of pathology showed their low efficiency, orthodontic treatment for periodontal diseases leads to unfavorable [5,6].

It is known that gingival recession is observed with anomalies in the position of teeth and occlusion, an inflammatory and destructive process in the periodontal tissues, mechanical trauma, orthodontic measures. Orthodontic movement of teeth can accelerate interdental gingival recession. Gingival recession in the interdental area leads to "dark triangles", unaesthetic gaps between teeth. It is possible to eliminate interdental recession with the help of mucogingival surgery. All of the above determined the purpose of this study [7].

**Purpose of the study.** To improve the aesthetic and functional state of the periodontium in patients with gingival recession in combination with dentoalveolar anomalies and deformities.

**Material and research methods.** We examined 46 patients with gingival recession in combination with dentoalveolar anomalies and deformities who applied to the dental clinic 2 of the TMA clinic and to the clinic №2 of the Yunusabad region. The age of the patients was from 15 to 50 years, of whom there were 28 women, 18 men. All patients underwent clinical and laboratory research methods.

**TABLE 1. CHARACTERIZATION OF CLINICAL MATERIAL**

Patient gender	Age (years)			
	15-25	26-40	41-50	Total %
Women	3	5	20	28(60%)
Men	2	6	10	18(40%)
Total	5	11	30	46(100%)

Clinical examination included questioning the complaint, medical history and life of patients, examination of the oral cavity, identifying the cause of the recession. At the first stage, all patients underwent sanitation of the oral cavity, as well as elimination of iatrogenic factors in the oral cavity (low-quality fillings of II, V, IV classes, prostheses with long crowns and a traumatic intermediate part of the prosthesis), harmful articulation habits and bruxism phenomena. The second stage was orthodontic treatment with a multi-bonding system (bracket system) using low orthodontic forces. The orthodontic stage of the complex treatment of patients with gum recession consisted in improving the position of the teeth, occlusion, achieving full-fledged fissure-tubercular contacts between the antagonist teeth, symmetry, that is, building a harmonious smile, occlusion and profile. In this case, orthodontic treatment was carried out on both jaws, with the final normalization of the occlusion in three planes and the achievement of multiple fissure-tubercular contacts between the teeth.

All patients measured the level of gingival recession before the start of orthodontic treatment and over time on the 14th, 21st, after 3 and 6 months. Depending on the applied treatment methods, the patients were divided into 3 groups.

The 1st group consisted of 10 patients treated in the traditional way.

Group 2 consisted of 20 patients who, in addition to the traditional ones, underwent surgery to close the gum recession using a coronary-displaced flap.

Group 3 consisted of 16 patients who, in addition to the traditional ones, underwent surgery to close the gum recession using a laterally displaced flap.

Patients of the 1st group underwent surgical debridement of the oral cavity, removal of dental plaque, followed by the appointment of antiseptics for rinsing the mouth.

Patients of the 2nd group at the first stage after the oral cavity sanitation underwent surgical removal of gum recession using a coronary displaced flap. The indication for this operation was the presence of bare roots, hypersensitivity of the exposed necks of the teeth. A prerequisite for this operation is the presence of an attached gum zone with a width of at least 5 mm. With this technique, both single and multiple recessions can be eliminated.

**Technique of the operation:** After anesthesia with 1% lidocaine in an amount of 5 ml, two parallel vertical incisions are made, for their unification - a scalloped peri-grooved beveled incision. After that, the flap is peeled off and mobilized, cutting the periosteum at the base of the flap. The flap is displaced coronally. Sutures are placed 1-2 mm above the enamel-cement joint in order to prevent postoperative retraction. The flap is displaced so that its edge is 1 mm higher than the enamel-cement border, and in this position is fixed with synthetic sutures No. 5, 6, the sutures were removed on the 14th day. In the post-operative period, antibiotics and antiseptics were prescribed for mouthwash.

Patients of group 3 at the first stage after the oral cavity sanitation underwent surgical removal of gum recession using a laterally displaced flap. This operation is intended to close single narrow recessions, mainly of medium width.

**Operation technique:** After anesthesia with 1% lidocaine, a V-shaped incision is made around the bare root, excising the marginal epithelium and connective tissue. When planning a donor flap, it should be taken into account that it should be 2-4 times wider than the receiving bed. A

scalloped parasulcular beveled incision is made, connected on one side with the V-shaped incision edge, and on the other with a vertical incision at the donor site. The flap is split so that its distal part consists only of the mucous membrane, and the part covering the recession is full-thickness, that is, it consists of the mucosa together with the periosteum. This prevents postoperative recession in the donor site and ensures its greater mechanical stability. The exposed root surface is treated mechanically and chemically modified. The cut off epithelium and connective tissue are removed. The flap is mobilized, moved, placed on the exposed root surface, overlapping the edge of the tooth crown by 1.5-2.0 mm, and fixed with synthetic sutures No. 5.6. Protective dressing is desirable for the first 7 days. The stitches are removed on the 14th day. The flap is displaced so that its edge is 1 mm higher than the enamel-cement border. After the operative period, antibiotics and antiseptics were prescribed for mouthwash.

**Research results and discussion.** The results of the treatment of patients in group 1 showed that after the first stage (surgical) treatment, there was a decrease in the inflammatory process (a decrease in the edema of redness, unpleasant odor). Before the start of the second orthodontic stage, we measured the recession of the gingival margin at the level of the premolars and molars of the upper (14,15,16,17,18 teeth) and lower jaws (34,35,36,37 teeth). Table 2 shows that after the first stage of surgical treatment, the level of gum recession averaged  $3.1 \pm 0.7$  mm, and after 6 months,  $3.9 \pm 0.8$  mm. In the dynamics, there was a tendency for the gum recession to increase by 0.4 mm.

**TABLE 2. THE LEVEL OF GUM RECESSION DEPENDING ON THE APPLIED METHOD OF TREATMENT AT THE LEVEL OF PREMOLARS, MOLARS (1ST AND 2ND GROUPS) AND INCISORS (3RD GROUP)**

№	1st group	2st group	3st group
Before orthopedic treatment			
1	$3,1 \pm 0,7$ MM	$3,9 \pm 0,8$ MM	$4,5 \pm 0,8$ MM *
On the 14th day			
2	$3,2 \pm 0,6$ MM	$1,0 \pm 0,7$ MM *	$1,0 \pm 0,6$ MM *
On the 21st day			
3	$3,4 \pm 0,07$ MM	$1,0 \pm 0,5$ MM *	$1,0 \pm 0,9$ MM *
In 3 months			
4	$3,5 \pm 0,8$ MM	$1,1 \pm 0,6$ MM*	$1,1 \pm 0,7$ MM *
In 6 months			
5	$3,9 \pm 0,8$ MM	$1,1 \pm 0,7$ MM**	$1,1 \pm 0,6$ MM **

Note:  $P \leq 0.05$  \* - reliable in relation to the indicators of the 1st group. \*\* - reliable in relation to indicators before orthopedic treatment.

The results of treatment of patients from group 2 showed that gum recession after oral cavity sanitation was  $3.9 \pm 0.8$  mm at the level of the upper (14,15,16,17,18 teeth) and lower (34,35,36,37 teeth) premolars and molars. Previously, the patients underwent professional debridement of the oral cavity, after which the surgical removal of gum recession was performed using a coronary displaced flap. Observation of the postoperative period showed that there was swelling and slightly soreness in the flap area, so the patients were prescribed an antiseptic eludril for mouthwash. The postoperative period in the dynamics of swelling and pain in the flap area decreased, the color of the gums became pale pink.

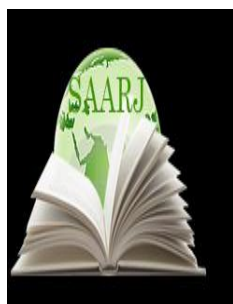
Table 2 shows that the indices of the depth of the gingival margin decreased, on the 14th day it was  $1.0 \pm 0.7$  mm, and later, with the adaptation of the flap, the depth of the gingival margin was  $1.1 \pm 0.7$  mm, i.e. noted a lasting effect.

Analysis of the results of treatment of patients in group 3 showed that gingival recession before orthopedic treatment at the incisor level (11.12, 21.22) was  $4.5 \pm 0.8$  mm. Patients of this group had gingival recession eliminated using a laterally displaced flap. In the postoperative period, swelling and soreness in the area of the flap, gingival mucosa persisted for up to 5-6 days. The administration of antiseptics to patients improved the hygienic state of the oral cavity. Further observation showed a positive trend in indicators. The postoperative period in the dynamics of swelling and pain in the flap area decreased, the color of the gums became pale pink. Table 2 shows that the indices of the depth of the gingival margin decreased, on the 14th day it was  $1.0 \pm 0.6$  mm, and later with the adaptation of the flap, the depth of the gingival margin was  $1.1 \pm 0.7$  mm, i.e. noted a positive effect.

**CONCLUSION:** Thus, the results of the study showed that the treatment after surgery of patients with recession in combination with dentoalveolar anomalies and deformities is aimed at eliminating occlusal trauma, creating multiple occlusal contacts, harmonious smile and profile, as well as improving the condition of periodontal tissues. good long-term results.

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## THE MENTIONING OF KINGS IN CLASSICAL LITERATURE

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### ABSTRACT

*Lyrical, epic and prose literature created in the Turkic language, works on colorful content and themes are given in a wide place in the artistic interpretation of oppressive personalities. In the artistic literature, interest in the personality of kings and khans was manifested in a peculiar way in each period of time and political-social system of issues of the spiritual world, fairness, politic and entrepreneurship, appearance in everyday life of representatives of different strata. The appeal to this topic in the artistic literature was also based on political and social reasons.*

**KEYWORDS:** *Prophets, Doctors, Rulers, Moral-Educational, Exhortation.*

### INTRODUCTION

Historically, it is known that by the IX-X centuries the influence of the Arab Caliphate in Central Asia was significantly weakened. For the next two centuries, the states that were founded by the local nobility, Samanids, later the Karakhanids, the Khorezmshahs, the Seljuks were appeared in Yettisuv. In order to create the foundations of statehood, to manage the government and the land fairly, the Ruler class had to have regulations created in the Turkic language, information on the history of the Kings of the past, works that provide an understanding of the demands and desires of social strata, in short, "programmatic property". Thus, "Kutadgu bilig" by Yusuf Khos Hojib appeared, intending to satisfy the political need. The epic "Hibat ul-haqayiq", created a century later by Ahmad Yughnaki, was also written in response to the same requirements of need, a work that complements the "Kutadgu bilig" in terms of content.

In the works of Yusuf Khos Hojib and Ahmad Yughnaki, the idea of strict regulation of the feudal state administration, its strengthening, showing the sides of the duties and activities of the rulers and describing their interaction with other social strata was put forward.

Additionally, they are also embodied in the artistic embodiment of the socio-political and moral-educational features of the life, modernity of historical rulers.

Each chapter of these works, created in the style of exhortation, discussion and question-answer, is devoted to a specific issue. There are comments about the state and the authorities, the ruler and the people of his palace, their duties and duties. In the works the ruler was described as the only leader of the state, the law for all of his commandments, he is the one who achieved the Office of the principality by the will of God. That is, the attributes and qualities of the Principality (perception, ingenuity and pure soul) are thought in the context that God gave, and then brought a particular person to the beck level.

Hamidjon Homidi notes in his work "Representatives of the ancient East" that Yusuf Khos Hojib "Kutadgu bilig" has put forward the idea of a wise, just ruler, the struggle for a centralized state, the head of state and the relations of citizens, scientists and authorities, economic, cultural relations with the army States, social and philosophical observations that are advanced in the idea of the duty of the ruling. [2,54]

In the work, the necessity to be a perfect person, a kind official, a just ruler, an intelligent consultant, a strong desire and a will to overcome the temptation to be content is expressed in poetic images and expressive footage.

As the life of the prophets is described, the unique tidings (messages) they bring, although putting himself to torment, the realization of noble deeds for the people is described artistically, and the sides to which there will be a lesson will be widely enlightened. The difference of the prophets from the Kings seems to be that each of their practical actions and thought-provoking thoughts are only an expression of goodness or benefit to mankind.

The Kings are a large state, a property owner, more than the spiritual education of the people, it is necessary to ensure the political inviolability of the state, the security of borders, the prosperity of the land.

One of the examples of artistic prose created in the Turkic language is the work of Sayfi Sarai "Gulistan bit-Turkic". In this moral-educational, spiritual-educational work, spirit, thoughts are propagated in the context that it is possible to end the shortcomings in the behavior of people by polishing oppressive Kings and officials, governing the state on the basis of strict laws and regulations. The peculiarity of this freely translated work, which was created in the old Uzbek language, is that in verse there are prose passages, along with stories, as well as verse passages. In prose, the author uses poetic excerpts from folk proverbs, fables, stories, artistic arts. He uses the method of rhyme-saj in prose as an artist. The work consists of 8 chapters, 176 parables, 442 poems, 51 wisdoms, 19 sermons, 5 story manzums, 1 point. Basically, a general embodiment of the rulers was created in 35 stories of the first chapter of the work, this embodiment was expressed in four stories of the second chapter, in one story of the fifth chapter, as well as in one of the proverbs of the sixth and eighth chapters, in different ways. Of the 35 stories in the first chapter, 10 chapters praise the perfect Kings, and in six stories describe the oppressive kings. In the "Gulistani bit-Turkic", in general, it is mentioned about sultans, prophets, and the image of real historical prototype personalities is also elevated to the level of the main hero with a specific artistic form and content. To wit, in the work, the artistic images of such historical figures as Kharun Ar-Rashid (pages of 202 and 204), Noshiravani Adil (page of 204), Buzurjhmehr (page of 204), Alexander (page of 206), Hatami Tayi (pages of 204 and 244) are brought.

Nosiriddin Burkhoniddin ogli Rabguzi in his work "Qisasul-anbiyo", after the prose statement often used the technique of referring to the wise bytes, anecdotes and proverbs with the citation of the theoretical passages. The idea of the work is illuminated by stories about the Prophet-Kings. In the work, the literary-critical concepts and terms were used in the form of headings like sayings, parables, prophecies through anecdotes, question-answer, legends about prophet Mohammed, use, aydi, aymish. "Qisasul-anbiyo" depicts faithfulness to belief and conviction, greed, envy, the triumph of pure human morality over rapacity, injustice, and bloodshed. In the work, oriental stories and legends are reworked, vivid images and scenic paintings are created. With a series of stories, the topic is consistently lit up. The main part of the mythical stories about the prophets was of a religious nature, and the rabbis created many of them on the basis of mythological syllables from the Koran Karim and other religious sources. In addition to the legendary prophets, the book also provides narratives and proverbs about the prophesied persons. The work consists of a total of 72 stories. It was skilfully used in various genres, such as narrations, verse, poem, anecdote, gazelle, parables, statement words, use, prophecy, exhortation, munojot, wisdom, legends of prophet Mohamed.

The work of Abulghozi Bahodirkhan "Shajarai turk" is also a historical work, in which the events about Genghis Khan and his descendants are described. The formation of the Mongolian state, the composition of the Mongolian troops, the battles and wars for the conquest of other countries on an ongoing basis historically-chronologically enlightened.

In Mirzo Ulugbek's historical work "The history of the four demos" there is also the image of a ruler, in which books of tafsir and legends of prophet Mohamed, narrations were used. Mirzo Ulugbek applied to many books (history, geography, astronomy) when writing the work. The author mentioned that famous poets used pieces of poetry. The work covers a detailed history of the Mongolian Empire. Some of these sources are not clearly shown in the work. The scientist began his work with compliments about the prophets. He briefly describes the history of the thirty-three khans. In the Genghis Khan period, information on the procedures, discipline, rigor, internal and foreign policy of the country in the structure of the Turkish army is presented. The work consists of the mention of twenty-three prophets, the Sultan's remembrance of eighty-eight rulers, and the mention of two sections. The history of the Chighatai nation, the events of the struggle for power, the history of the occupation of other countries are told, administrative and spiritual reforms, the role of the head of State in domestic and foreign policy, the transfer of cities to the Khans, nicknames to them, paper and coins

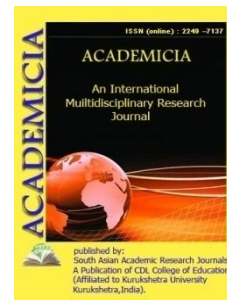
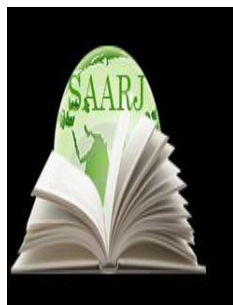
Interesting information about the history of the Chigatai nation, the events of the struggle for power, the history of the invasion of other countries, administrative and spiritual reforms, the role of the head of State in domestic and foreign policy, the assignment of the Khans as cities, the imposition of nicknames on them, the forging of paper and coins, the possession of all property by feudal lords. In this historical work of Mirzo Ulugbek, written about the rulers, a positive attitude was expressed, and the embodiment described is the image of Genghis Khan. The advice he gives to his children, the policy he conducts in the conduct of the state, the nature of his military actions, which is modern and peculiar to him. This work is not only a historical work, but also has an educational value, with the illumination of Genghis Khan's sermons, the style and methods of managing the state. The work also shows the invasion, cruelty of Genghis Khan's troops. In the creation of the works of Khondamir, "Habib us-siyar", "Hulosat ul-axbor", Mahmud ibn Vali "Bahr ul-asror", Ulugbek's work "The history of the four demos" was used,

and in terms of content these works are close to each other. They contain information about the history of the Turkestan Khans and Genghis Khan, his descendants standing on the top of the Chighatai Ulus, and about the powerful dynasty formed after the death of the Mongol Empire, that is, Genghis Khan.

In the XIV-XV century, the great epic work of Hazrat Alisher Navoi, "Khamsa", as well as a number of works of prose: "Tarixi anbiyo va hukamo", "Tarixi muluki Ajam", "Munshaot", "Majolis un-nafois", "Nasoyim ul-muhabbat", "Mahbub ul-qulub", will be specially touched on the image of prophets, kings, rulers, expressing their attitude about them, explaining their specific views on the methods of power, state, people, society, management.

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## **BOBUR IS A TYPICAL REPRESENTATIVE OF A RULING PERSON HIS SPIRITUAL CHARACTER**

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### **ABSTRACT**

*The article describes Bobur's lifepath as a ruler and his personal traits as a head of the state and poet that can be read from his autobiographical work 'Boburnoma'. Indeed, Z.M. Bobur's policy in governing the state, his creative activity as a poet is revealed in the excerpts from "Boburnoma".*

**KEYWORDS:** *Character, Ruler, Poet, The Temurids, Typical Representative, Example Of A Perfect Or Harmonichuman (In Sufisim).*

### **INTRODUCTION**

Zakhiriddin Mohammed Babur was a typical representative of the rulers in the history of Uzbek statehood, as well as a great man who embodied the character of perfection. He displayed the qualities that were characteristic of many mature people of his time. Such a common character of Bobur had found its scientific and philosophical expression even up to our time. "The idea of a perfect or harmonichuman is a noble idea of both national and universal nature, embodying the highest spiritual and physical perfection of humanity, always encouraging it to goodness"[2, 56]. The notion of a perfect human being has its grounds in tasawwuf, sufism.

The idea of a perfect man has always been a noble dream of people in his time, an integral part of spirituality, maturity and enlightenment. Babur propagated such ideas in his works and he himself reached the level of complete perfection. Thus, Babur was an emotional poet, a meticulous scientist, a sociologist with a deep view of society and the times, a courageous warrior, a wise statesman, a true leader and a humble man, kind and but sometimes, demanding to his people. Such formation of perfection in Babur had its own social basis.

In studying the personality of Bobur created in "Boburnoma", the following opinion of N. Mallaev is noteworthy: "Babur introduces the forms, behaviors, genealogies, etc. of other historical figures separately. However, "Boburnoma" does not contain any special information about Bobur himself. The reader finds it all the way of life, deeds, attitudes to people and events, worldview, pleasures and tastes, joys and sorrows, victories and defeats, applause and resentment, dominion and wanderings, harsh policies and hypocrisy, anger and blessings, pleasures and subordinates. with days spent in the open, on horseback and on foot, barefoot and without a hut, with knowledge and wisdom, observation and findings, and so on. He is supposedly portrayed as the protagonist of a historical novel. The difference, however, is that in a historical novel, when the writer creates the image of the protagonist, he takes all the facts related to the historical figure and does not accurately reflect them. Perhaps, he chooses the facts in accordance with the purpose and task he has set for himself, reproduces them creatively, uses artistic imagination. "Boburnoma" contains the facts about the life and work of Bobur. Because the genre of Boburnoma and its memoir require it." [1, 602]

Although Babur embodies the image of a poet to us, he was first and foremost a ruler who fought and achieved the royal masculinity of the time. So, what is the fundamental basis of character formation in Bobur? Babur was born into a family of rulers and was raised in this environment, and from an early age to rule became his ideal goal. Babur was the son of Umarshaikh Mirza, the governor of Andijan region, a descendant of Amir Temur - the fourth generation (Abusaid Mirzo - Sultan Muhammad Mirzo - Mironshah - Amir Temur). Her mother, Kutlug Nigorkhanim, was the daughter of Yunus Khan, the governor of Tashkent, of Uzbek-Mongolian descent. For this reason, Babur describes "Yunus Khan as a descendant of Genghis Khan's second son, Chigatay Khan" [3, 12]

This means that Babur was considered a descendant of the great kings Amir Temur and Genghis Khan by both father and mother, and according to the ancestral lineage, he was one of the contenders for the royal title. Incidentally, his father Umarshaikh Mirza Akhsi fell from a dovecote on the edge of the fortress and soon, died. Following the tradition, Zakhiriddin Mohammed Babur, the eldest son of Umarshaikh Mirza, was appointed as a governor after his father. At the time, he was younger than 12 years old.

Of course, Babur was not fully matured as a ruler at that time. As Babur ascended the throne, he was aware of the service of the rulers before him, as well as he had conversations with other rulers of Timurids, and had been involved in their military marches. He especially remembers his mother's upbringing with respect: "... My mother was Kutlug Nigorkhanim. Therefore, most of the Kazakh and Fatarot were with me in" [3, 13]. This means that Kutlug Nigorkhanim was with her son at any difficult time, giving him advice or, in the following description, he was very young in the circle of the Timurid rulers: and the young ruler's respect for her was expressed.

The invasion of Sultan Mahmud Khan and Sultan Ahmad Mirza, and the sudden death of Umarshaikh Mirza, gave hope to both Timurids to capture Andijan. Because they understood that Bobur, who had risen to replace his father at that time, was still a child. The death of his father caused great suffering to Bobur, and he gathered his navkars (army) and set out against his uncles, who had begun an attack from the north and south of the Syrdarya. Babur describes this incident as follows: "I was in a garden in Andijan when Umarshaikh Mirzo was attacked. On Tuesday, the fifth of Ramadan, the news reached Andijan. set out on horseback in agony, with a

navkar and a merchant in my hand, walking towards the citadel. When I reached the gate of Mirza, IshrimTaghoyi took the reins of my horse and directed me towards the mosque. He thought that Sultan Ahmad Mirza, is the great king, if he came with a large army, the beys would hand me over and the province. And then, he would take me to Uzgen and Alatau. If they give me the province, I would not be captured at all, and thus, I would have to go to my uncles Olachakhan or Sultan Mahmudkhan " [3, 17]"

The young prince's riding against the enemy of the country raises suspicion among his relatives. In particular, Ishrin's uncle, Sultan Ahmad Mirza, said that it was difficult to argue with a great king. The beys say that he will hand over the region and Babur himself to Olachakhan - Sultan Ahmad Mirza and Mahmudkhan. But Babur did not back down from the covenant. Seeing the courage in him, the beys also started to support him. As he himself admits, "all were united and united in seriousness and perhaps deliberation" [3, 18] Here, Babur emphasizes the support of his beys: Hasan Yaqub and QasimQavchin.

Babur takes the first blow to Sultan Ahmad Mirza. By this time, he had conquered Uratapa, Khojand, Margilan, and had also entered Qubo (Quva). Andijan's attackers on Bobur's battle were also found to have "inappropriate remarks". One of them was a man on horseback, Darwish Gov. When he was punished, Babur's policy was abandoned and he began to trust the ruler. Sultan Ahmad Mirza was a humble, poor and ordinary man. Probably for this reason, he had given up his will. Just as Umarshaikh Mirza was accidentally killed, so was the army of Sultan Ahmad Mirza unlucky. A large stream of water flowed in the swamp of Kuva. Flooded with a large squirrel, he fell into the water with many horses and camels and perished, the horse plague spread. On top of that, Babur's army and navkars surrounded them in unison, so that they would not give up. The panicked Sultan Ahmad Mirza made peace

Secondly, his uncle Sultan Mahmud Khan and his uncle Sultan Ahmad Mirza came with the intention of war, but they did not have enough military skills. Even Sultan Ahmad Mirza's navkars suffered great losses not only from the war but also from the natural disaster as a result of their lack of life experience. The governor of Kashgar and Khojan, who understood Bobur as a young boy and tried to take advantage of the situation in the country, were also struck by the fact that the beys stood firm.

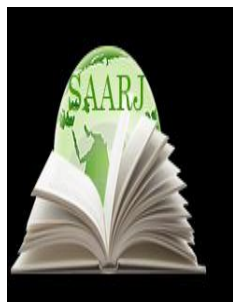
After the loss of the Andijan invaders, Babur's legacy could be limited to governing the country and beautifying it. But Babur went to Samarkand, ruled by his uncles, and besieged the city. Sultan Ali, who was the mayor of the city at this time, put the kinship and friendship between them and asked Babur for alliance. Babur granted his request, but soon Samarkand passed into the hands of Sultan Ali's brother BoysungurMirzo. In 1497, at the age of 14, Babur set out for Samarkand with about a thousand men. So, what was the reason behind Babur's withdrawal from Andijan and his return to Samarkand? Although his uncle Sultan Ahmad Mirza had died, he had a desire to take revenge and take over the country.

The main reason behind this is that Samarkand was the capital of Amir Temur. For this reason, both Babur and other Timurid rulers dreamed of capturing the city.

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## DAIRY PRODUCTIVITY OF DROMEDARIES BY SEASON OF THE YEAR

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### ABSTRACT

*The article presents the milk productivity by lactation periods and by the season of the year of single-humped dromedaries in pasturable, semi-pasturable and stall keeping. With an increase in the frequency of milking, the level of suck of milk received by a colt in the pasture decreases, and with a decrease in the number of milking, on the contrary, it increases. Thus, the difference in milk yields between the autumn (maximum milk yield) and spring (minimum milk yield, end of lactation) periods in the group of animals kept in pasturable and semi-pasturable keeping, respectively, was 129.8 and 146.3 liters, while this indicator for stall keeping amounted to 177.7 liters.*

**KEYWORDS:** *Single-Humped Dromedaries, Conditions Of Keeping, Pasturable, Semi-Pasturable, Stall, Seasons, Lactation, Milk Productivity.*

### INTRODUCTION

None of the types of farm animals so successfully combines such qualities as high ability to work, meatiness, milkiness, wolliness and adaptability to the harsh conditions of deserts and semi-deserts, like a camel, therefore, to increase the production of cheap high-quality meat, milk and wool, they are bred in many countries of the world.

Livestock producers of the Republic of Karakalpakstan have been breeding dromedary camels (*Camelus dromedarius*) for a long time, and the breed - Turkmen arvana is considered the creation of national breeders. In addition to dromedaries, the herd also contains two-humped camels, Bactrian (*Camelus bactrianus*) of the Kazakh breed. Therefore, hybrids of two types are widespread in the Republic of Karakalpakstan. This is due to the fact that our republic is located at the junction of the habitation of the two types of camels.

**The object and subject of the investigation:** Single-humped camels, offspring, milk, shubat, wool and conditions of detention.

**Research methods:** Zootechnical, biological, technological and mathematical.

**Results:** Camel milk and fermented milk products made from it are distinguished by high nutritional value, fat and protein content, good taste and healing properties. Taking into account the fat content of milk in terms of milk yield, camels are not inferior, and even surpass the indicators of cows of local breeds of large horned cattle.

The biological feature of the camel, which sharply distinguishes it from other milking animals, is the duration of the lactation period, reaching 350-450 days, as well as the ability to lactate with year-round pasturable keeping.

By the researches of A. Baimukanov [1], Z. Musaev [2], Yu.S. Sokratyantsa [3], B. Abdirov [4], and others, it was found that the milk productivity of camels depends on the species, breed, age, level of feeding, keeping technology, the frequency of milking, individual characteristics and other factors.

Thus, Z. Musaev [2] notes that camels of the Turkmen Arvana breed for 360 days of lactation had an average milk yield of 3240 liters with an average fat content of 3.4%, while camels of the Kazakh Bactrian breed for 180 days of lactation gave 860 liters of milk with a fat content of 5, 6%. Therefore, among scientists there are different opinions about the efficiency and duration of milking camels, especially the Bactrian breed.

Knowledge of the relative dynamics of the average daily milk yield for the periods of daily lactation is of great importance. It is explained by the fact that, depending on the intervals between milkings in different periods of lactation, the period of time spent by camels in the pasture with female camels changes. With an increase in the frequency of milking, the level of suck of milk received by a colt in the pasture decreases, and with a decrease in the number of milking, on the contrary, it increases. This is the basis of the sucking-milking upbringing of young animals, by adjusting the frequency of milking, in combination with lactation periods, depending on the yield of pastures and the grazing radius, it is possible to control the dynamics of the daily milk yield of camels.

Thus, the level of milk yield of camels largely depends on the frequency of milking. It has been established that more frequent milking of low-milk camels has a negative effect on the growth of their colts; in high-milk camels, on the contrary, frequent milking increases the yield of marketable milk.

The researches by scientists has established that single-humped camels, in comparison with two-humped, are characterized by high milkiness.

If we talk about the level of milk production of camels, then among them there is a relatively high individual variability, at the same time it should be noted the variability of milk production by months of lactation.

The studies by A. Baimukanov [1], Z. Musaev [2] and others show that milk yields are different for different seasons of the year.

Camel farming in Karakalpakstan is a traditional branch of livestock-breeding. Its development is facilitated by natural and climatic conditions, first of all, by the presence of huge desert pasturable tracts.

In our experiment, milk production was studied over 14 months of lactation under three different conditions.

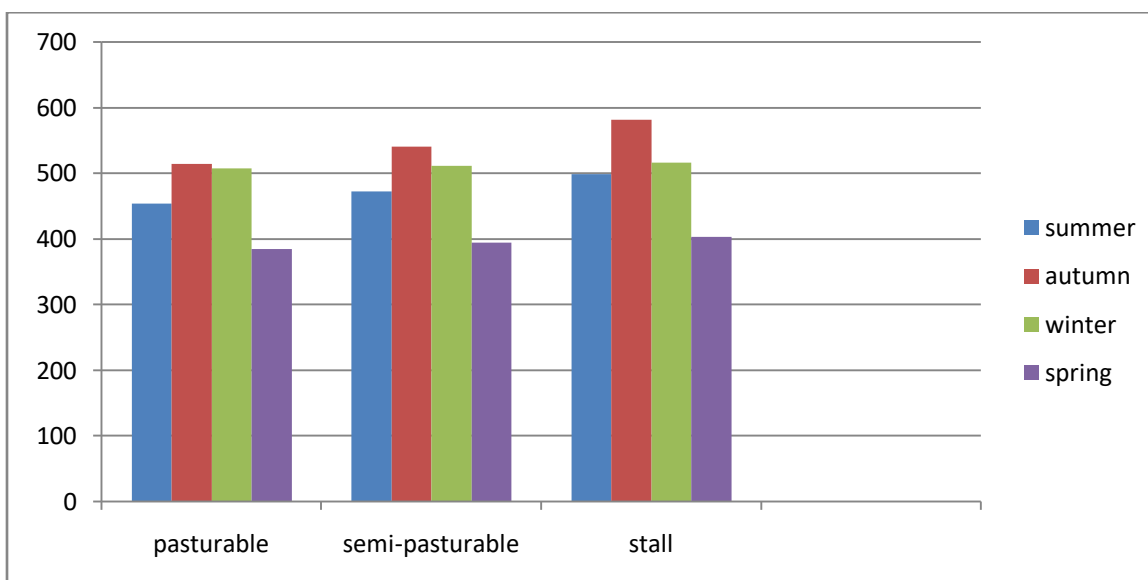
Table 1 below shows the milk production indicators of camels by seasons of the year under different conditions of keeping.

**TABLE 1 INDICATORS OF MILK PRODUCTION OF CAMELS BY SEASONS OF THE YEAR**

Methods of keeping	Summer		Autumn		Winter		Spring	
	$X \pm S_X$	$C_v$ %	$X \pm S_X$	$C_v$ %	$X \pm S_X$	$C_v$ %	$X \pm S_X$	$C_v$ %
Pasturable	453,2 $\pm$ 1,86	9,3	514,0 $\pm$ 0,96	7,1	507,2 $\pm$ 1,03	7,5	384,2 $\pm$ 0,64	5,7
Semi-pasturable	472,6 $\pm$ 1,14	8,2	540,5 $\pm$ 1,17	8,5	510,7 $\pm$ 1,01	7,2	394,2 $\pm$ 0,64	5,4
Stall	498,3 $\pm$ 0,98	7,3	580,9 $\pm$ 0,92	6,8	516,0 $\pm$ 1,04	7,3	403,2 $\pm$ 0,82	6,7

Analysis of these data shows that the highest milk production rates were recorded in the autumn-winter periods. This is apparently due to the fact that this period falls in the middle of lactation, and by this time semi-shrub plants also grow, which is well eaten by camels.

So, in the first group, the difference between the summer and autumn periods was 60.8 liters, in the second and third groups, 67.9 and 82.6 liters, respectively, in favor of the autumn period.

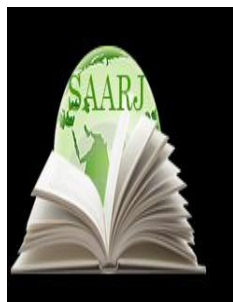


General analysis of all three groups shows that changes in milk production by seasons were noted in the third group, that is, with stall keeping. This indicates that at the optimal level of feeding, the factor of the season of the year and the lactation period has the least effect on the milk productivity of camels. Thus, the difference in milk yields between the autumn (maximum milk yield) and spring (minimum milk yield, end of lactation) periods in the group of animals kept in pasturable and semi-pasturable keeping, respectively, was 129.8 and 146.3 liters, while this indicator for stall keeping amounted to 177.7 liters.

Thus, the results of our investigation on the study of the milk productivity of Single-humped camels in different conditions of keeping, pasturable, semi-pasturable and stall keeping, showed that in all cases it depends on the frequency of milking, lactation period, seasons of the year, age, keeping technology.

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## THE TERMINOLOGY OF CONSTRUCTION AT TECHNICAL UNIVERSITIES AND ITS TEACHING METHODOLOGY

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### ABSTRACT

*In this article the terminology of construction at technical universities has been analyzed and some effective and efficient methods to teach them have also been discussed. English for specific purposes students are usually adults who already have some acquaintance with English and are learning the language in order to communicate a set of professional skills and to perform particular job-related functions. The program is therefore built on an assessment of purposes and needs and the functions for which English is required. However, in order to create the formation of a foreign design project future architects do not have sufficient technical competence, which reduces the quality of the linguistic training of specialists and negatively affects on professional situations.*

**KEYWORDS:** *Specialist, Communication, Professional Sphere, Construction, Terminology, Activity, Foreign Languages, Foreign Culture.*

### INTRODUCTION

Foreign language teachers for some special purposes usually have a lot in common with teachers of general foreign language. For both it is necessary to consider linguistic development and teaching theories, to have insights in contemporary ideas regarding their own position and role as well as the position and role of foreign language learners in education and to face new technologies offered as an aid to improve the methodology. The most important difference lies in the learners and their purposes for learning English. English for specific purposes students are usually adults who already have some acquaintance with English and are learning the language in order to communicate a set of professional skills and to perform particular job-related functions. The program is therefore built on an assessment of purposes and needs and the functions for which English is required. Specialized English concentrates more on language in

context than on teaching grammar and language structures. It covers subjects varying from accounting or computer science to tourism and business management. From this prospective of view, English focal point is that English is not taught as a subject separated from the students' real world (or wishes); instead, it is integrated into a subject matter area important to the learners. As a matter of fact, English in different fields combines subject matter and English language teaching. Such combination is highly motivating because students are able to apply what they learn in their English classes to their main field of study, whether it be accounting, business management, economics, medicine, computer science, architecture or construction.

One of the most important requirements for a modern specialist is his ability to participate in oral and written communication in the professional sphere, nature and content which are predetermined by the features of the subject area of activity type in construction discourse, in the perception and production of which the specialist will participate. The main purpose of training specialists with knowledge of a foreign language is to prepare them for a professional intercultural communication which is necessary for them to carry out professional activities in foreign languages and foreign cultures.

In the professional field, architects-builders intensively interact with foreign customers and therefore experience a real need for mastering a foreign language is necessary and successful tool to solve professional problems. One of them is, in particular, is the presentation of design technical activities of the architect-builder at international exhibitions and scientific publications in foreign sources. However, in order to create the formation of a foreign design project future architects do not have sufficient technical competence, which reduces the quality of the linguistic training of specialists and negatively affects on professional situations. Theoretical issues related to the problem of teaching construction terminology in language competence of students are insufficiently developed and the need to form foreign language competence of technical, architectural, constructive terminology is always on demand. Therefore, our research is actual and includes the following problems to solve: increasing the requirements for professional training of future architects, builders, expanding the information field of their professional activities that belong to language skills in their communication.

**Methods and methodology** The research methods that I used in my research are as follows:

- Cognitive-generalizing which is used to study and analyze the theoretical and practical work in the field of teaching methods of foreign languages. By this method our research focused on the analysis of programs, textbooks, handbooks in a foreign language for students of technical universities.
- Diagnostic method has been utilized for surveys with students.
- Praximetric method includes the analysis of processes involving the productivity of student activity, assessment of their work.

## LITERATURE REVIEW

The theoretical and methodological basis of this study was the fundamental works of foreign scientists in the field of linguo-didactics of communicative linguistics, pedagogy. The work has a significant impact on these foreign authors: T.N. Astafurova, N.I. Almazova, A.L. Alekseeva, N.V. Baryshnikov, I.L. Bim, A.A. Verbitsky, I.R. Galperin, N.D. Galskova, N.I. Gez, S.V. Grinev, I.A. Zimnaya, I.L. Kolesnikova, Ya.M. Kolker, M.V. Koltunova, N.N. Kokhtev, L.G.

Kuzmina, B.A. Lapidus, A.A. Leontiev, R.K. Minyar-Beloruichev, E.A. Nozhin, A.V. Olyanich, E.I. Passov, E.R. Porshneva, I.V, J. Cumming, J. Ewer, T. Hutchinson, J. Munby, P. Strevens, A. Waters and so on.

## RESULTS AND DISCUSSION

As practice shows, students of architectural and construction specialties traditionally observed a low level of proficiency in foreign language for several reasons: attitude to a foreign language as a secondary subject; low level of language teachers in this field; not enough taking into account the intercultural professional needs of students; architectural and construction specialties related, in particular, to formation of skills to present and protect a project in a foreign language, which is, in our opinion, one of the basic elements of professional competence of specialists in this profile. One of the most typical situations of speech and thought activity of an architect-builder is a presentation, discussion or the protection of architectural projects in a foreign language in the educational process and at international exhibitions after graduation [1, p. 26]. Presentation of an architectural project is defined as informing the audience about the construction or reconstruction of an object, searching for interested parties in supporting the development and implementation of the project. Foreign-language presentation of an architectural project implies students have the relevant knowledge and skills that make up the foreign language design and technical competency, which will allow them to exchange special information with foreign colleagues, actively develop the international construction market, promote domestic projects, and compete with foreign architectural construction companies.

To select the learning content and develop an effective model for the formation among students of architectural and construction specialties it is necessary to identify the lexical and grammatical and terminological specifics of the sublanguage of architecture and construction: [2, p. 398]

1. term saturation of terminological usage in relation to commonly used in studied texts accounted 65 %;
2. the frequency of use of multicomponent terms and phrases in relation to simple ones was 23 %;
3. high frequency use of one, two, three or more component abbreviations: c (ceiling), c (cold water), c (Celsius), A. T. (air temperature), b.p. (base plate), r. s. w (roof support, roof wall), A.E.S.C (American Engineering Standard Committee);
4. the high frequency usage of nouns as attributive function: wall board, lean board, layer board, ridge board, barge board; hammer beam, dragon beam, principal beam;
5. widespread use of verbs denoting architectural and construction processes: to design, to carry loads, to transfer, to resist, to compensate, to rotate, to fix, to restrain, to lean, to construct, to bear;
6. the usage of structures with participle I and II: adjoining arches, birding beam, hanging gutter, colonnaded space [3, p. 155];

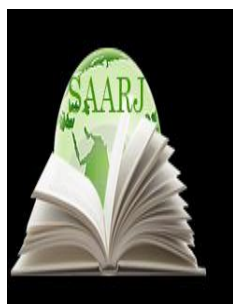
## CONCLUSION

Analysis of existing training material allowed the conclusion that it does not reflect the goals, content and forms of training required for the implementation of a full-fledged professional activity in modern conditions. Teaching students a foreign language is mainly limited to topics on the history of architecture, does not differ in the high practical importance of teaching all types of speech activity (reading, writing, speaking, listening) and language means, does not

imply the development of presentations and skills, which significantly reduces the motivation of students who are interested in obtaining deeper knowledge of the specialty from foreign sources.

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## THE RARE SOURCES RELATED WITH THE HISTORY OF NAQSHBANDIYA-MUJADDIDIYA IN THE 18-19 CENTURIES

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### ABSTRACT

*In the 18th and 19th centuries, the pattern was studied in Central Asia based on manuscripts and historical sources and historical documents on the doctrine and history of the Naqshbandiya-Mujaddidiya tariqat.*

**KEYWORDS:** 18 And 19<sup>th</sup> Centuries, Central Asia, Naqshbandiya- Mujaddidiya, Silsila, Manuscript.

### INTRODUCTION

The study of the manuscripts and lithographies related to the history of teaching of naqshbandiya- mujaddidiya in Central Asia in the 18-19<sup>th</sup> centuries, its chronicles, regional centers and the activities of famous murshids, historical documents and the epigraphical data are of great importance.

Among such holy sources the “Manaqibi Islam Shykh” of Muhammad Qasim, “Tazkirayi olimoni Samarqand” of Mavlana Nuriddin Makhjoori Samarqandi, and the “Nazm-us silsila” [1] of Sayyid Vasli Samarqandi and others can be attributed with this importance.

### Main part

The author of “Manoqibi Islam Sheikh” is Muhammad Qasim ibn Hasan Balkhi. The Turkic manuscript “Manoqibi Islam Sheikh” is one of the manuscripts of the Naqshbandi-Mujaddidiya tariqat, which has a great scientific value in covering the history of the late Middle Ages [The Turkic copy of the manuscript is kept in the manuscripts fund of the Institute of Orientalistics of the Academy of sciences of Uzbekistan named after Abu Rayhan Beruni under the №-1590 (hereinafter we refer to as UzFASH) [3]. The book is written in the style of manaqib [the book written which reveals the good qualities and peculiarities of the person], maqamat [meaning the place, level in the tariqat] based on the life and activities of Islam Shaykh Karrukhi, who had

great efforts in the several tariqats in the second half of the 18<sup>th</sup> – beginning of the 19<sup>th</sup> centuries and died in the Karrukh makhalla of Herat. (The famous poet of Uzbek and Tajik literature Junaydullah Haziq is the son of this Islamic sheikh). The work belongs to the series of books written in hagiographic the [treatise commenting on prophets and saints] style and is another Persian manuscript copy [Is kept in the house of Amonov Uzbekkhon, one of the ancestors of Islam Shaykh Karrukhi dwelling in the Jumabazar makhalla, Taylaq district, Samarqand region. The treatise is called “Manaqibi Sultan Karrukhi” the manuscript is being written in Persian. 19<sup>th</sup> century] without some pages of this work, in our opinion, the Turkish manuscript seems to have been translated from the Persian copy.

Like the all manaqibs written in the style of “Manaqibi Islam Sheikh”, this book is not free from overstatements.

In writing this work, the author used such works as “Kitab tarikh ul-mashayikh” [Muhammad ibn Ali Termizi], “Masnavii-ma’navii [Mavlana Jalaluddin Rumi], “Tazkirat ul-avliya” [Fariduddin Attar], “Avarif ul-maarif” [Shahabuddin Suhrawardi], “Mabdayi nur” [Boborahim Mashrab], “Futuhāt”.

The first part of the Turkic version of the work is entitled “Manaqibi Hazrati ghavs uz-zamon janobi Islam sheikh”, the second part is “Tariqai ismi zot”, the third is “Ghazali mabdai nur” and the fourth part is “Hikmati Shamsiddin”.

In the first section, as we have already mentioned above, the life of the Islamic sheikh, his masters, along with the penetration into the sect his political activities, as well as his political activities, that is, during the reign of the rulers of Bukhara Muhammad Rahimbi, During the reign of Shah Murad, he served as “Mirzaboshi”, “Yuzboshi”, and later as “Yasovulboshi”, as well as several sets of teachings and the essence of the doctrine, the relationship between the murshid and the murid are mentioned in detail.

In the second part of the work, “Naqshbandi-Mujaddidiya-Islamiya” [15] are given the etiquette of suluk, methods and times of remembrance, supererogatory (unimportant prayer) worship and the order of its performance.

The third section contains 116 verses from the work “Mabdayi Nur” written by Boborahim Mashrab.

In the last fourth chapter, under the title “Hikmati Shamsiddin”, there is a 12-line ghazal written by Sheikh Kholmuhhammad Dakhbedi Khatlani, one of the pupils of this sect, under the pseudonym “Shamsiddin” [10].

Even though the treatise “Manaqibi Islam shaykh” is written by the Muhammad Qasim, the author mentions that bringing this book to his master Shahabuddin “Writing it in Balkh, from there came to Hazrati Shaykhul-islam (meaning Islam Shaykh Karrukhi-M.A.) and there compiling the article, presented to the associates” [3: 76-a].

So, it is known that Muhammad Qasim wrote this manaqib under the supervision and direct guidance of his master Shahobiddin Balkhi.

Also in the work, using the work of Sayyid Amir Hussein Sodot’s “Risolai musammai ba libasi suf” [5] to describe the dress worn by members of the sect, and mainly the headdress. According

to him, the representatives of the Islamic Sheikh Muhammad and his silsila were also shown wearing “shaheedayi” [3: 68-b], as well as the essence of its content was also indicated.

The work “Tazkira” [1] written by Mavloni Nuriddin Mahjuri is one of the rare sources written in the form of poetry, tazkira. This work provides valuable information about the students of Mavloni Mir Muhammad Ibrahim Khoja Samarqandi (died 1878) and his descendants, who worked in the Musakhan Dahbedi branch of the Naqshbandi-Mujaddidiya sect.

This manuscript consists of four parts, initially the introductory part consists of 1-13 a-b sheets, In the section “History of Qutb uz-zamon va ghavsi davron Hazrat Eshan khalifa Ibrahim (rahmatullahi alayh)” the book discusses the fact that Muhammad Alim Mufti's son Muhammad Nuriddin Alam Samarqandi, with pen name “Mahjoor” and the Hanafi school.

The second part of the “Tazkira” begins with a commentary on verse 79 [6: 234] of Surah “Waqi’a” 56 in the order of the Qur’an, with commentary by Tillakori’s master, Akhund Bobo qozi [1: 14-a - 17-a].

The third part is called “Mursalat”, the names of Muhammad (peace and blessings of Allaah be upon him), Abu Bakr Siddiq, Umar, Usman and Hazrati Ali (karrmallahu vajhahu), taba’a tobe’ins, Siroj ul-muslimiyn Imam Abu Hanifa (may Allaah have mercy on him) are mentioned. This section is devoted to the letters written by such leading scholars of the author's time as Akhund Domullo Muhammad Nurullah, Eshan Obid Khoja and Domullo Niyaz Muhammad, as well as the discussion of various Islamic issues. At the end of the work the letter states the date of the event as 1293/1875, and states that it was completed in 1319/1901. The work contains pages 17-b-36-b.

The fourth part is entitled, “The Story of Muomalai Hamin Mahjuri Janab Isa Muhammad Amir”. This section begins on page 37a and ends on page 42a. This section covers the story of the Emir of Afghanistan Amir Abdurahman Khan's brother Sardor Muhammad Ishaq (Isa) Khan leaving his homeland and coming to Samarkand and meeting and talking with Mir Muhammad Ibrahim Khoja.

The fifth part is “Tazkira”, which begins with the radifi ghazal “Mosuvo” on page 42b and ends with the ghazal “Musammati Masnaviy turkiy” on page 180a.

This chapter begins with the date of the death of the ruler of Bukhara, Amir Muzaffar ibn Amir Nasrullah, and states that Amir Muzaffar died in the month of Safar on Thursday morning in 1302/1884 [This date is derived from the following word “Sultan Muzaffar” in the bayt “Chashmi qirri khurd tarikhi favt shoh din, qol li tarikhi Sulton Muzaffar lo savo” calculated in abjad becomes 1369, from “savo” 67 is derived. If we deduct the two words, that’s if the 67 is subtracted from 1369 the year 1302/1884 is derived. 1: 53-b - 54-a]; Date of death of qazi of Bukhara Domullo Sadriddin 1300/1882 [1: 58-a];

It is mentioned that the hanaqah, mosque and aiwan was built in the tomb by Hoja Ismatullah who was the ancestor of the Shaykh Khudoydodi Vali in the cemetery [1: 62-a];

It is mentioned that the Haji Safa Wali Mosque was built 50 years ago [1: 62-a] (i.e. 1123/1744) from 1208/1793.

The Turakhan Khoja Mosque [1: 65-a], a building in the shrine of Sheikh Mansur Motirudi, was built in 1296/1878, and the Sharbatdor Mosque was rebuilt for the third time by Avaz Muhammad in 1221/1805 [1: 70-b].

The Qo'shhovuz mosque was built by the brothers Qori Muhammad Saloh and Shamsiddin [1: 70-b], as well the history of the death of such persons as Musahan, Mirza Sayyid qori tora (his son Akramkhan), Qori Yuldash, Qasim Haji, Caliph Abdulkarim, Qazi Kalon, Sheikhulislam Mir Sulaymon Mahzumi Alam ibn Abulhay hoja sudur, Eshan Olim hoja Dahbedi [If we consider the words Sad-darig, as we have mentioned before the date of the death of Olim Hoja Dahbedi is revealed as 1314/1896. That's Sad+darigh (sad-100+غ-1000+ي-10+ر-200+د-4)=1314. 1: 107-b], Domullo Muhammad Nurullah, Domullo Qasim Mahdumi Samarkandi, Domullo Nur, Mirzo Abdulvahid, Eshoni Obidkhoja, Muhammad Aminkhoja (alias Eshon Bobokhon), Isomkhoja avroq, Eshon Haji Mehmonkhan, Sayyid Barakot ibn Sayyid Murod, Fayzi Mahdum, Qabiljon, Mullo Muhammad Sadiq ibn Muhammad Rahim Jurjani, haji mullo Mukhtor Samarqandiy ibn domullo Muhammad Alim Mufti, Jamoliddinbi, Haji Zargari Bukhari The history of the death of, is illuminated by Nazm in the style of "ta'rikh".

There are also a description of such remarkable events as the headline, "Ta'rikhi qutb uz-Zaman and gavsi davran Hazrat Eshan Khalifa Ibrahim (peace be upon him), "Ta'rikhi gumbazi khalifa Ibrahim", "Ta'rikhi masjidi Khoja Chorchinor", "Ta'rikhi masjidi Dari Zanjir".

In the section "History of Gunbazi khalifa Ibrahim" [1: 145-b - 147-a] the death of Mawlana Mir Muhammad Ibrahim Khoja Samarkandi in 1296/1878 "Friday evening of the month of Eid" [1: 91-a] and the history of the mausoleum over his tomb is 1300/1882, based on the word "عيسى محمد" - "Iyso Muhammad afghan" (abjad calculation).

So, according to the information in Mahjuri's verses, it is clear that the mausoleum-dome was built by the commander Muhammad Ishaqkhan on the tomb of Mawlana Mir Muhammad Ibrahim khoja in 1300/1882 [In the derivation of this history the mastery of Mahjoori in the art of the literature was shown one more].

Naqshbandi-Mujadididiya silsila's master Mavloni Mir Muhammad Ibrahim Khoja Samarkandiy's one of the rare work "Nazm us-silsila" is dedicated to one of his student Eshon Valikhon Urguti.

Sayyid Ahmad Vasli's "Nazm as-silsila" is a rare treatise written in tajik [The book is translated into Uzbek and published by B.Mukhiddinova. 4] and containing 30 valuable pieces of information.

In an article [9] published by Khoja Muin about the life and activity of the author Sayid Ahmad Vasli, he was born in 1287/1869 in Samarkand, in the Kushhovuz [7: 121] makhalla. His father (Azim [Or Mirmuhammad A'zam. 7: 121]) was a knife maker and his son died when he was six years old.

He first learned the knowledge from Mirzo Abdulhamid, and when he was 14 years old, he went to his uncle Abulqasim in Tashkent and studied aqeedah from Mullah Yaqub at the Kokaldosh madrasah. In 1892 he returned to Samarqand. He later continued his studies in Bukhara and successfully graduated in 1902. His teachers were Qazi Badriddin and Mullah Abduroziqcha.

From 1905 to 1910 he was an official master mentor in Bukhara. Hoja Muin, who reported that Sayyid Ahmad Vasli had died at the age of 65 [If the author Khoja Muin mentions the 65 years in hijri, in this case it corresponds to the 1352/1933 and taking into the consideration of the Gregorian calendar if he was born in 1869, the date of his death corresponds to the 1934].

Some researchers have shown that he died in 1925 at the age of 55 [The date of his birth is said 1870. 7: 119]. He had a son and a daughter.

He wrote many works in Uzbek, Persian and Arabic languages. Among them are “Bayan ul-khuruf”, “Asos ul-islam”, “Asl ul-ahkam”, “Zijr ul-maghrur”, “Bahoristoni Jami” (Uzbek translation), “Devon”(Persian and Turkish), “Imam A’zam”, “Muqaddimai sarfu nahvi arabi ham namunai sarfu nahvi farsiy”, “Aqoidi ghayri manquta”, “Naf’i ut-talib” and other works, poems and translations.

Such valuable rare works, dedicated to the history of the Naqshbandiya-mujaddidian sect and its manifestations in the 18-19<sup>th</sup> centuries, provide an excellent opportunity to study the work of the series.

It should be noted that in the process of research there are historical documents related to this period, such as guidelines, foundation documents and epigraphic (inscriptions on tombstones and architectural structures), which are important to study carefully them.

Irshadnamas

**Irshadnoma** [This historical document is manuscript, in Persian, kept in the house of Saida Qayumova. 11]

The document beginning with the greeting of “Bismillakhir rakhmanir rakhiym, praises to the Creator, the greetings and salavat to the prophet sallalaku alaykhi vassalam, know the fidel student the Khaq subhanahu taala introduced the rational masnavi into the pure and clean hearts of the Hazrat Muhammad Mustafa sallallahu alayhi vassalam. He starts with “Hazrat Siddiqi Akbar [Abu Bakr Siddiq (572-634) – The close associate and father in law of the prophet sallallahu aleyhi vassalam, and the first of Just caliphs. His real name was Abdullah (Abdullot) ibn Abu Qahafa. After his advent to Islam he had distributed his wealth to people in need. Due to his being fidel to sallallahu aleykhi vassalam he obtained the title “Siddiq”] (Abu Bakr Siidiq)” being introduced into his holy heart and looking to the below the through the lineage to through the means of Imam Rabbani [Khoja Ahmad Sirhindi (1564-1624) – is the sufi who won a fame with the penname Alfi Soni (Imami Rabbani) Founder of the tariqat Mujaddidiya] and Musakhan khoja Dakhbedi step-by step up to Khalifa Mir Muhammad Ibrahim khoja.

One of the representatives of the Naqshbandi-mujaddidiyya sect, Khalifa Mir Muhammad Ibrahim khodja Samarqandi [Khalifa Mavlana Mir Muhammad is the disciple of Ibrahim khoja Muhammad khoja, and he is the disciple of Muhammad Siddiq, he is linked with the Dahbedi dynasty], wrote an irshad letter to his student Sufi khodja in persian, in a nasta’liq letter, the text is 35 x 21 cm, 19 lines, written on yellow crumpled paper.

And the size at the end of the document: width 3 cm, height 2 cm which is sealed with a rectangular seal. The seal reads:

In the seal: “Sayyid Akram khodja ibn Sayyid Husayn khoja, 131 ...” as it is written. The date is indicated on the seal, but the last number is unknown, according to 131 ../ 1892-1901.

**Irshadnoma**

This document is written on Samarkand paper in nasta'liq script, in persian-arabic language. The text is 38 x 21.2 cm, 31 lines. At the top right of the document is written: Hazrat Haq subhanahu wa ta'ala, and On Hazrat sollallahu alayhi wasallam.

Between lines 23 and 25 of the document, two circular and rectangular-sized seals are affixed.

The rectangular seal has two rows of inscriptions; "Abulqasimkhan" in the bottom row, in the top row; "al-mutawakkil bi ar-rahman", it is written.

The writing on the circle seal was blurred, making it impossible to read.

The historical document-irshadnoma was given by Sayyid Abulqasimkhan to Mullah Nurmuhhammad Sufi, the son of the late Khalif Kipchaqboy.

This document- irshadnama [The document is written in Persian, kept in the house of Ghulomov Hayatkhan from Taylaq. 14] also begins with "Bismala..." and praises the Creator, and after the salawat to the Prophet (May peace and blessings of Allaah be upon him) and his Companions, silsila of aliyyayi-Naqshbandiya-mujaddidiyya's Musakhan khoja Dahbedi's sect is mentioned.

It is mentioned that Musakhan Khoja Dahbedi, his disciple Muhammad Siddiq, his disciple Muhammad Husayn, his disciple Sayyid Abulqasimkhan Alavi, his disciple (and owner irshad) belonged to Mullah Nurmuhhammad Sufi, the son of Kipchakboy. The document states the date 1322/1903.

**Irshadnoma [12]**

Bismillahir rahmanir rahim, praise be to Allah, peace and blessings be upon the Prophet Muhammad (peace and blessings of Allaah be upon him), from him through Imam Abu Bakr Siddiq to Imam Rabbani, from him to Musahanhoja Dahbedi, and from him to Muhammad Siddiq Husayn a series of sharifs stating that the sect had given permission.

The document is written in Persian and has a date of 1247/1830. The document contains a seal written as "Mohammed Hussein ibn tag'oy sufi".

**Irshadnoma [13]**

This Irshad document, like the above documents, begins with a salovat, Muhammad Musahoja Dahbedi, his disciple Muhammad Amin, his disciple Eshan Sheikhulislam Sarmavji, his disciple is Yakhya khoja, his disciple is Jalaluddin son of Yakhya khoja, and he conveyed that he gave the permission of spiritual ma'navi to Ghoyibnazar mahzum the son of Muhammad Sobir mahzum who received the secrets of tariqat after him. The document dated 1299 (1880) and has two seals in the middle and two seals at the end.

**Irshadnoma [14]**

At the top of the "Irshodnoma" there is a large leaf-like seal. In this seal, a series of meanings are given from the Prophet (peace and blessings of Allaah be upon him) to Abu Rabbani through Abu Bakr Siddiq, from him through his son Miyan Masum to Mirza John Jonah, and then through his disciples Abdulqayyum to Mir Muh(r)iddin Shaykh ibn Mir Ghiyasiddin mahzum. The seal has a date of 1315/1896 years.

During this irshodnoma-letter was stated that Mir Muh(r)iddin Sheikh had given permission to his disciple Mullah Khudaikul Khalifa ibn Hasanbi to teach.

### **Irshadnoma [15]**

“Irshodnoma” is 30 cm wide and 50 cm long. which is elongated and paleographically written on nineteenth-century paper. “Irshodnoma” does not have a date, the main text consists of 21 lines, and in the right margin of the text there are 21 lines of verses and hadiths, written in a beautiful Nasta’liq letter that is easy to read. “Irshadnoma” states that Sheikh Mirza Abul Hassan Karruhi was allowed to interpret and teach the dhikrs of “Jahriya” and “Khufiya” to his student Sheikh Mirza Abul Fath Karruhi.

The text of the document is stamped between lines 10 and 11. The seal belongs to Sheikh Mirza Abul Hasan Saqib and is 2.5x1.5 cm wide, rectangular in shape, with the following inscription in the middle [The ghazal in the stamp was written in Persian, but we show its English version]: It can be read from inscription, “Blessed is the bounty of Islam, as the river is full of pearls” [8: 127].

### **CONCLUSION**

The study of the Naqshbandi-Mujaddidi sect in Central Asia in the 18-19<sup>th</sup> centuries on the basis of rare sources and historical documents on its history plays an important role in the coverage of the subject.

As it is seen in the above-mentioned sources and documents, the naqshbandiya-mujaddidiya tariqat was widespread in 18-19<sup>th</sup> centuries in Central Asia, the fact that there were a lot of devout followers and murshids were revealed based on the sources related with that period, shows that the level of their spiritual perfection was high.

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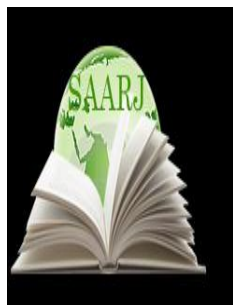
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## URAL-ATRAU THEME IN KARAKALPAK HISTORICAL SONG (THE EXPERIENCE OF HISTORICAL AND FOLKLORE STUDIES OF FOLK POETRY)

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### ABSTRACT

*The article says that the ancestors of the Karakalpaks lived in the foothills of the Urals, on the land of Saratov, on the banks of the Idil and Jayik rivers, and that information about this was preserved in Karakalpak legends, historical stories and poetic works. Also, attention is drawn to the fact that Karakalpak historical songs on the Ural-Atrau theme have not yet been studied separately in science. The author, listing the types of Nogai people in the Nogai period, gives his thoughts about the ethnonym "Sarnogai", as well as associating the ethnonym "Sarnogai" with the names "Ully Nogai", "Kop Nogai", proves that the heroes Syydak (Shyydak), Orak, Mamay and others that are descendants of Edige come from the Sarnogai. And the information that these heroes come from the shores of Idil-Zhaiyk and Zhem preserved in the family trees. In children's folklore, which is one branch of folklore, genealogical information related to the Urals and some sources of historical significance have also been preserved. In Karakalpak legends, several information is given about places such as the Atrau territory, the city of Saraishik, the Mangit depth. In the work "Ullytau" of the Karakalpak zhyrau, Zhiyen Amanlyk uly who lived in the 18th century and in the works of the zhyrau who lived in the Taelibay region, as well as other sources, the names Atrau, Saraishik are found. The article provides broad information about the above.*

**KEYWORDS:** Ural, Atrau, Idil, Jayik, Saraishik, Karakalpaks, Ural Karakalpaks, Nogai, Nogai Period, Sarnogai, Historical Song, Legend, Family Tree, Zhyrau Compositions.

## INTRODUCTION

Historical poems and songs have a special place among the Karakalpak folklore. This topic was discussed by a scientist who conducted research in the direction of such a project, Ph.D. A. Kozhikbayev describes the historical poems: "The value of historical poems is that, because they are the cultural heritage of the people, in its presentation of the historical epoch, it reflects the views of the people on historical events, their best dreams for the future." [1, p.5].

Among the historically important poetic examples, the "Ural-Atyrau theme" is one of the most unexplored issues. There is no doubt that the study of this topic will provide interesting information about the relationship of the Karakalpak people with these regions. We have collected relevant materials on the topic, using previously published research, reports from local informants, works of poets, writings of individual researchers and other data.

### Ural-Atyrau theme in Karakalpak historical songs

In the legends, historical stories and poetry of the Karakalpak people there is a lot of information about the work of their ancestors and some groups of their associates on the slopes of the Ural Mountains, Saratov (Sary Atau), along the Volga-Ural River, Atyrau region. In some works their names are mentioned simultaneously [2]. For example, in one of such poetic samples, written in 2000 by Koszheter Arzu uly from Shymbay, called "Sarnogai sarnauy", not only the place-names we mentioned, but also several ethnonyms are given:

*Sarı noğay – sarnogay,  
Saratawda san noğay,  
Oraltawdan oralıp,  
Ordada bası quralıp,  
Atırawdan aylanıp,  
Ay shaması jer shalıp,  
Ústirtten ótken wağı eken,  
Astırtqa jetken shağı eken...*

(*Yellow nogay is sarnogay, There are a lot of nogay in Saratau, Coming back from Ural Mountains, They gathered in the Horde, Going around Atyrau, Travelling for one month, Crossing the plateau Ustyurt, They reached to Astyrt (Lowland)*). [3, p. 5]. The event corresponds to the collapse of the Nogai Union in the XVI century [4, pp. 35-86]. This historical poem contains such toponyms as Saratau (Saratov), Oraltau (Urals), Orda (Horde), Atyrau (Atrau), Ustyurt (plateau) and Astyrt (Turan lowland), ethnonyms "sary (yellow) nogai", "sarnogai". Although the place names in the text are clear to the public, it is necessary to dwell on them, as the mentioned ethnonyms are connected with the history of Karakalpaks.

Well known folklorist A. Konyratbayev divided the population of the ancient Nogai community into four: 1) Sary (Yellow) Nogai. After 1380 they moved to the west and formed the Khanate of Kazan, Crimea, Kasym (Kasimov). They call themselves "Tatars"; 2) Qara (Black) nogai. In the 16th century, they formed the ulus of "on san nogai (ten thousand nogai)"; 3) Mangyt Nogai. They settled the lands of Mangystau (Mangyt village) and for many epochs mixed with the

Kazakhs. Edige, Orak, Karasai and Kazy are from Mangyts; 4) Caucasian nogai. Most of them are descended from Mangyts [5, pp. 348-349]. The author did not provide information about "sarnogays".

Among the Karakalpaks there are other names such as "ully(great) nogai", "kop (many) nogay", "az (less) nogay", "aq (white) nogai", "shet (foreign) nogai" and others. In our opinion, the ethnonym "sarnogai" is probably the equivalent of the names "ully (great) nogai" or "kop (many) nogai". This is because there are such words as "In the time of Sarnogai...", "Edige was the leader of Sarnogai". Edige is a historical figure who founded the Great Nogai Horde in 1391 [6, p. 10]. The genealogists say that Syydak (Shyydak), Orak, Mamay and others were descendants of Edige. The heroes also came from Sarnogai and they asked the Volga-Urals and the Emba rivers. About their residence in these areas:

*Sydaqtiń Sydaq bolǵanı,*

*Sıylanıp tóрге shıqqanı,*

*Ol – Mamaydıń arqası,*

*Oraqtiń Oraq bolǵanı,*

*Oraltawdan aylanıp,*

*Oralıp elge kelgeni,*

*Ol da Mamay arqası....*

(Syydak became famous thanks to Mamai. Orak also thanks to Mamai going around the Ural Mountains, he came back to his country). Such words are preserved among the people [7, p. 12].

Mangyt Mamai is one of the great rulers of Nogai. From these lines it is clear that the Karakalpaks were around the Ural Mountains. Among the people of Karakalpaksthere are interesting legends about each of the named people and short stories. They are also glorified among the Zhyraus[8, p. 95].

Representatives of the Karakalpak people still work in the historical Ural region, and some of them were forced to move to neighboring regions in the thirties of the twentieth century. It is known that among the Ural Karakalpaks there were intellectuals who made a significant contribution to the culture of Kazakhstan and the Republic of Karakalpakstan [2, pp. 270-273].

One of the branches of folk art is for children. Among the folklore models for children, "termish" have their own place [9, pp. 10-11, pp. 460-463]. Chronicles and historically important data are preserved in the termishes.

*Alalay menen Bıylalay,*

*Aylana tawdur Oralay,*

*Oralay tawdıń bulanı,*

*Oralıp qashsa qutilmas,*

*Otaǵası turǵanda,*

*Otardaǵı jaskishi,*

*Orınsız sirá is qılmas,  
Húy-ya, húy-ya, balam-ay...*

(Alalai and Bulalai surrounded by mountains. If the moose of Ural mountains escape, it can't get rid of. When the head of the family stay, the youths of the family can not do the wrong thing, Hey, hey, baby ...) [7, p. 6].

Karakalpak legends tell a lot about Atyrau region, Saraishyk, Mangyt Oiy (depression). In the poem "Ulytau" by Zhien Zhyrau:

*Topar-topar posqınshı,  
Atırau degen jerlerde,  
Bes mıń basın qosadı,*

(Five thousand refugees gathered in places called Atyrau) [11, p. 96]. Or at the end of the tolgau, describing the general situation of these refugees:

*Atırawdan posqan el edi,  
Kimi ólip, kim qalıp,*

*Segbir tartıp keledi...*, (It was a people that escaped from Atyrau. A lot of people died and the survivors are suffering) - is described [11, p. 101].

This is a picture of the plight of the people, who for several years disagreed with the rulers of the Kazakh Horde and moved to the east and west. There are also historical songs about the good deeds of the Karakalpaks in the Atyrau region. An excerpt from the poem "Atyrau aytuy" written by Serikbay (Kyitu), the youngest son of the famous Menlibay kobyzy player, a descendant of one of the historical leaders of Karakalpakstan - Monke bi, famous in the Taelibay region, reminds of the times when people lived in peace:

*Atırawda edi – altı arıs,  
Jayıqtıń boyın jayladı,  
Jayılım tolı jılqısı,  
Jelige qulın bayladı.  
Salqınshaqta biyesi,  
Sartapta jatar túyesi,  
Sahrada júrgen tabınnıń,  
Sarayshıqtadur iyesi.  
Jayılıp aqqan Jayıqtıń,  
Salası bar da, sayı bar,  
Jayılqan atlı xalıqtıń,  
San mıń pada malı bar.  
Qıyır-qıyır jolları,*

*Qiyada órer qoyları,  
Qırwar mina ellerdiń,  
Qırlardı jaylar bayları...*

(There were six tribes in Atyrau, they settled along the Urals. The pasture full of horses and foals. The mare in the cold, A camel lying on the ground. The house of the owner of the herd is in Sarayshyk. There is a branch and a gorge of flowing Urals. There are thousands of cattle of the people called Zhailkan. Riches of this people settled the edges. They have got many sheep) [7, p. 10]. First, we see that the means of the term "aytu" is sense of longing, remembrance. This is because in the modern Karakalpak language, the words "aytu" in the poems about a person who has traveled a long way, or who has disappeared, or who has died, must be connected with these meanings. "Atyrau aytuy" also evokes feelings of nostalgia for the places where our ancestors once lived.

The concept of "алтыарыс (six tribes)" in the series, which began with "Атыраўдаедиялтыарыс" (there were six tribes in Atyrau), means the six largest communities of Karakalpaks [12, p. 73]. The composition of the six tribes, which have long been the core of the Karakalpaks, are: Kitay, Kipchak, Keneges, Mangyt, Muyten, Konyrat. In the people's genealogy there are "six countries", "six nations", "six hordes" and others. It is known that these six tribes of the so-called Karakalpaks did not break the original unity before and after the Nogai period [13, pp. 220-224]. N. Daukarayev rightly pointed out that even after the disintegration of the Nogai people, the so-called "Six Sons" of the union moved to the ancient historical sites [14, pp. 69-74].

In the text there are such historical sites as Atyrau, Ural, Saraishyk, there is also a folk name "Zhailkan". "Zhailkan" is not a human name, but a general name of Karakalpaks. Karakalpaks are still called "Zhailkan" by the steppe peoples [15, pp. 2-3]. "Asasy, the ancestor of Teke-Zhaumyt is Seilkan, the ancestor of Chinese-Konyrat is Zhailkan. They are descended from Ozgan ... "[16, p. 7]. Similar descriptions are given in Berdak Shayir's "Shezhire". In it the ancestor of Konyrats is called "Zhaiylgan" [17, p. 133].

According to Kelmuhammed Orazmuhammed uly, the custodian of the people's heritage, an intelligent man, even after the Karakalpaks moved from the Ural-Atyrau region (from the Volga-Urals), they continued to call it "Nogaily" [18, pp. 2-3]. It is popularly known as "Saraishyk":

*Сарайшықтың сазлары,  
Ғаңқылдайды ғазлары,  
Су сорасаң – пал берер,  
Ноғайлының қызлары...*

(The melodies of Sarayshik, Geese gaggle, Nogay's daughters give you honey, if you ask them water) [19, p. 8]. It is clear that this notion is still understood. The genealogies and records of their ancestors related to the city of Saraishyk are still preserved among people.

Historical records show that even after the arrival of the Karakalpaks to their historical sites along the Aral Sea, caravans were sent to the north by the Nogai Way to Aktobe, Uralsk, Orenburg, and by the Kangai Way in the Ustyurt to the Mangyt Qyr (ridge), the Mangyt

Depression, Atyrau, and further to Astrakhan. Tureke Bai (son of Turymbet Ural Batyr), one of the largest landowners of Shymbay in the early twentieth century, also used to send iron and tin household items to Atyrau (Guryev) and Orenburg (Orenburg) and was in constant contact with the Karakalpaks there. [20, pp. 11-12].

## CONCLUSION

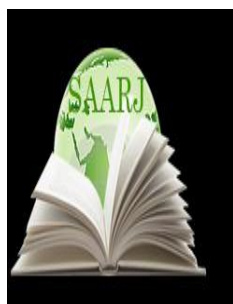
Kargaly, Elek, Oiyl, Kyiyl, Zhem, Mangyt oiy (Zhyly oi), Oymauyt and others mentioned in Karakalpak folk poetry. All of these places are settled between Uraland Atyrau. In the late eighties of the last century, an expedition to this region was organized by researchers of the Institute of Language and Literature named after N. Daukarayev [21, pp. 85-97]. In addition, in 2007-2009, representatives of the ethno-organization "Amir Edige Palace" visited the area. In recent years, the poet M. Zhumanazarova, folklorist S. Amirlan, young blogger S. Ziyaev and others have visited the Urals and published their impressions of the trip, their scientific research in the media.

In general, the memoirs of the Ural-Atyrau region have not yet been collected. In addition to the Karakalpaks of the Aral Sea, among the Karakalpaks of Bukhara and Turkestan there are many folklore works on them [22; 12, p. 143]. Similar materials are found in the folklore of Samarkand Karakalpaks [23, pp. 120-123; 24, p. 185]. Undoubtedly, in the future, their regular collection, publication in the press, will provide valuable information for the science of Karakalpak folklore.

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## THE DEVELOPMENT OF A HEALTHY CULTURE OF LIVING FOR STUDENTS-YOUNGSTERS THROUGH PHYSICAL EDUCATION AND SPORTS AS A PEDAGOGICAL PROBLEM

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### ABSTRACT

*In the content of the article, the pedagogical conditions of attracting students to physical education and sports, absorbing and developing the concepts of the culture of healthy life, the possibilities and effectiveness of physical education and sports have been studied, the technological conditions of the organization of the targeted pedagogical process have been referred to. Youth health is one of the most important social problems that must be solved positively in the current society, and neglect of this problem is equivalent to losing the future generation perspective. After all, maintaining and strengthening the health of students, forming the need for physical education in their physical perfection is an important task facing educational institutions.*

**KEYWORDS:** *Culture Of Wellness, Pedagogical Tool, Curriculum Vitae, Motivation, Technological Process.*

### INTRODUCTION

#### Actuality

The current development of modern educational processes on a global scale is determined by the different socio – pedagogical directions and changes in its composition, reforms, the abundance of movements in their coloring. In recent years in the Republic of Uzbekistan, issues such as popularization of physical education and Sports, Promotion of healthy lifestyle among the population, setting priority directions aimed at increasing the skills and knowledge of the population in the field of physical education and sports in order to form a mature and healthy

person with a high culture in the country, along with the lines designated by the Republic of Uzbekistan[3].

At the present stage of the development of society, attention is paid to the healthy lifestyle of students and young people, which is associated with an increase in the level of ill health of specialists who graduated from higher education to the general public and in the process of their professional training, and then with a decrease in working capacity [5].

The problem of developing a healthy culture of living for students through physical education and sports is an important issue that awaits its solution. The state of youth health is an important component of the healthy potential of the nation, therefore, the preservation and development of the health of students and the development of a culture of a healthy lifestyle in them is of paramount importance today. Youth health is one of the most important social problems that must be solved positively in the current society, and neglect of this problem is equivalent to losing the future generation perspective.

In the process of globalization, one of the main conditions for the modernization of society is the development of the living culture of the population and the improvement of the social environment [4]

**Purpose of the study.** The formation of a healthy lifestyle of students-young people, the determination of the omillarni Influencing Development, the formation of a healthy lifestyle through physical education and sports, the improvement of Health, the pedagogical conditions for the development of a healthy lifestyle are studied and studied.

**Research methods.** A theoretical analysis of the general factors of the development of the culture of healthy living in students – youth, the educational significance of physical education and sports as a pedagogical tool, and literature review research methods were used.

**Conclusion on the reserach ant their dissucssion.** The concept of a healthy lifestyle, its essence, principles, formation and development of physical culture of a healthy lifestyle in the process of education and training, students and youth have been studied by N.A. Meshelkova (2005), T.M.Kravchenko (2004), B.M.Zimasov (2006), I.Dj.Manchanov (2001), K.Sadigov (2007), A.Jamoliddinova (2010) and others.

The textbooks, manuals and articles by D.J.Sharipova(2010), A.Rakhmanov(2012), S.A.Abitova(2019), N.Sh.Mannapova(2019), Sh.Khankeldiev, A.Abdullayev, Q.Jabbarov, R.Hamroqulov, R.Rasulov, A.Hasanov (2010,2011) devoted to some problems of of the research on the subject are considered as the primary literature.

The development of spelling in terms of pedagogical conditions, opportunities and effectiveness of the development of a culture of healthy living through physical education and sports of students and young people can not be considered sufficient. In the available sources, the overall aspects of the problem were studied and the student youth, recognizing the relevance of the problems of a healthy lifestyle in the students, reaffirmed the need to further expand the scope of the research.

On the basis of observations conducted in the educational educational process of the direction of Higher Education "Physical Culture", the conditions for the organization of the pedagogical,

technological process of development of the culture of healthy life through physical education and sports classes and extracurricular activities were determined:

1. The development of the culture of healthy life through physical education and sports activities is characterized as a social, pedagogical problem, the role and importance of physical education and sports in the development of the culture of healthy life is revealed, and opportunities are shown in higher educational institutions.
2. In the process of training, physical education and sports training, students improve their knowledge based on skills related to behavior, habits, lead a healthy lifestyle, maintain health and develop.
3. Introduction of educational technologies into educational activities, harmonization with the pedagogical theories of education that develop the theory of physical education and oriented to the individual.
4. Introduction of students in teaching and extracurricular activities from non-traditional teaching methods aimed at developing the culture of a healthy lifestyle.
5. To achieve effectiveness through the use of forms, methods and means of developing a culture of healthy living in physical education and sports for students – youth.
6. Practical implementation of the rules that ensure the effectiveness of the process of development of a healthy culture of physical education and sports in students.
7. The criteria indicating the level of students through the development of a healthy living culture through physical education and sports activities, the implementation of its samadorlik levels in practice.

Physical education is part of a person's general culture. In Physical Culture, a person acquires not only his natural existence, but also the culture of mankind, striving to harmonize himself with the surrounding world, nature and society.

At the present stage of the development of society, the formation of the physical culture of an individual is a multifaceted and at the same time integral process, aimed mainly at the implementation of physical health programs from physical training to the development of physical self-improvement of an individual and changes in the level of development of psychophysical qualities and characteristics. [5].

Physical education and sports play an important role in the formation of a healthy culture, strengthening human health, increasing its physical and functional capabilities. A person should feel a legal and mandatory need for physical activity in the structure of his lifestyle. A healthy lifestyle, strengthening health, requires regular physical education and sports. After all, maintaining and strengthening the health of students, forming the need for physical education in their physical perfection is an important task facing educational institutions.

**Uzbekistan is a nation of sport lovers.** There are two traditions – indigenous and international – that exist side by side and are followed with equal passion by their fans. The most famous local sport is kurash, a form of wrestling which has a history that stretches back over millennia. International sports, such as football, basketball, ice hockey and gymnastics became popular in the twentieth century. International-style boxing and wrestling also attracted

a considerable following, as did Asian martial arts such as judo, karate and taekwondo. A number of Uzbek champions played in top Soviet teams, competing in the Olympic Games and other prestigious events under the Soviet flag. Since Independence, impressive local and national teams have emerged in all the major branches of sport.

Therefore, there is a need to carry out in-depth research and research on the problem of developing a healthy living culture through physical education and sports for the students of Family Educational Institutions, exactly this situation will determine the relevance of this research work.

The current practical situation on the culture of a healthy lifestyle in the students of a higher educational institution indicates that there is a scientific study and several characteristics inherent in it.

Today, the development of technical progress, the replacement of the work performed by a person in his / her work activities by means of technical means, has a positive impact on the strengthening of one's health. Therefore, the modern educational process often leads to a deterioration in the health of students.

The issue of developing a culture of healthy living in students is very important. A healthy lifestyle first of all begins with the family. The main and important issue is the integration of the concept of "Culture of living a healthy life" from a young age into the idea of "living a healthy life" in the pupils – youth and students.

There are many factors , causes that lead to deterioration of students – youth health in educational institutions. For example:

- lack of proper observance of the agenda;
- lack of exercise, hygienic students;
- smoking, the spread of alcohol substances;
- connects to spend their leisure and leisure time in computer halls, cafes;

The above-mentioned cases show that students spend their time in a variety of idleness jobs and are in a relationship with the poor of their culture about health, neglect of their health. Therefore, systematic, effective organization of activities of extra-curricular national and mass sports clubs in the process of physical education of future Physical Culture students, development of Culture of Healthy Life, Organization of recreation and leisure time, in educational centers plays an important role in formation, development of healthy living culture.

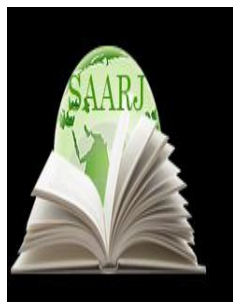
After all, it is necessary to focus on the fact that the formation of a motivational attitude to the work of physical education occupies students as a direction of Health Value. Therefore, the main goal of physical education and sports in the development of a healthy culture of student-youth is to increase the functional, flexible abilities of the body, to develop the physical culture of the individual and to educate and develop the individual with a focus on self-development. It is worth noting that physical education and sports are not only an educational discipline, but also the most important component of the formation of a healthy culture of student youth, which contributes to the harmonization of physical and spiritual unity, ensuring the formation of universal values, such as the health of students, physical and mental perfection.

**CONCLUSION.** The importance of physical education and sports is increasing in the development of intellectual, moral and physical qualities through physical education and sports, increasing sports skills, strengthening health, improving working skills, developing a culture of healthy living, and in the multifaceted process of creating a healthy environment. Because physical education and sports are an effective means of the process of education of a person in the formation of reason, moral perfection, physical perfection.

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## SCIENTIFIC-METHODICAL STUDY OF SUPPORT FOR SOCIAL INNOVATIONS IN THE SOCIAL PROTECTION SYSTEM OF THE POPULATION

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### ABSTRACT

*The article analyzes the theoretical and methodological study of social innovations inherent in the social sphere. The scientific and practical experience of the developed countries of the Bunda was analyzed in comparative form. The sociological interpretation of social innovation as a product of social activity is presented. Scientific and methodological approaches and points of view have been put forward in support of social innovations.*

**KEYWORDS:** *Social, Social Protection, Community, Society, innovation, sosial innovation, sosial entrepreneurship, sosial investment, public, non-public sector, innovation activity, Trend, trend, civil society institutions.*

### INTRODUCTION

In most situations, people perceive changes taking place in society as the product of technological innovation. The main attention is paid to projects in the field of new technical and technological devices, information supply. However, in the maintenance of social stability and social balance, nafaiaat is not only technical-technological, but also social innovations are of great importance. It is sosial innovations that show the current trends in changes and innovations that are expected in the development of society.

It should be noted that social innovation is a concept specific to the social sphere and is studied at the intersection of social and humanitarian Sciences as a scientific and practical category. The essence of this concept is built around the "social" question. The core of the word "social" in Arabic means "collected", "added" - goes to the word "JAMA'a". With the addition of the suffix "iy" to it, meanings

such as "concerning the Society of personality", "social" are formed<sup>1</sup>. In another source, the concept of "Social" is classified by content as "related to the life of Man and society"<sup>2</sup>. So, if the "social sphere" is a sphere that belongs to the life of society, then the "social protection", which lies on its basis, means the protection of human interests.

As on all fronts, the system of social protection is developing along with modern innovations and innovative trends. After all, any system of innovation (including the system of social protection-X.T.) in its activities, it is considered a serious update, a dynamic process that gives impetus to changes. According to the etymological feature of the term innovation, "novatio", derived from the Latin language, means "renewal" (or change). The prefix "in", which is added to it, is used in the meaning of "direction of changes", forming "innovatio" in the meaning of "direction of changes".

## MATERIALS

Although the concept of innovation has come into scientific consumption since the nineteenth century, its classical theory was first developed in 1911 by Joseph Shumpeter. Y. According to Shumpeter, innovation is not only an update, but also a factor of progress.

V.R. Spencer describes innovation as an absolute new state of mind that can be applied, applied in a specific situation<sup>3</sup>. In this sense, innovation is a new phenomenon that is consciously perceived by people and applied in practice. No, it's not. A. Yakoves, however, believes that the ultimate result of the introduction of innovation is evident in the stabilization of the economic, social, environmental situation<sup>4</sup>. Hence, innovation serves to maintain social balance in the society as the product of human intellectual labor.

A.A. Dagaevs study the innovation process as a sequence, chain of events. Innovation is initially developed as an idea and creates a dynamic process that is up to the application in practice<sup>1</sup>. Innovation is becoming more and more popular, modernized, improved and new features are acquired.

Within the types of innovation, the importance of social innovations directly related to human vital activity is great. Social innovations serve the stability of social life by improving the daily living of people. In this sense, we can interpret social innovations as a new phenomenon, positive changes that coincide with the social conditions formed at a certain stage of the development of society. In a situation where modern development legislation forms new social norms in the social sphere, social innovations are becoming more relevant as an Educational, Scientific and professional type of activity.

In different periods of historical development, social innovations were used in practice. In 1774 I.G. Pestalossi will teach the children of the lower tier their skills of getting out of poverty by teaching them<sup>2</sup>. In 1799, philanthrop entrepreneur Robert Owen proves in practice that the social protection of hired workers serves the benefit of the employer<sup>3</sup>. R. Owen reduces the long working hours that exhausts workers in his factory and opens a special kindergarten for their children under the enterprise. These innovations, which for their time were at the level of social innovation, were positively received by the broad layers of the population.

Although the practice of social innovation has a centuries-old history, the scientific term has been used a little late in science. Its author, Muhammad Yunus from Bangladesh, in 1976 year developed and applied the concept of microcredit at a minimum interest rate, in which the terms of pledge and guarantee were abolished. His only condition was to spend the loan on opening a family business. This science-based social innovation will improve the social situation of thousands of Bangladeshis

suffering from poverty. In 2006, Muhammad Yunus was awarded the Nobel Prize for his effective social innovation.

Social innovations as a social phenomenon, radically different from technological innovations, began to be studied from the end of the XX century. This was fueled by intense technological progress, and the practice of Social Innovation accelerated. At the same time, various scientific definitions and interpretations of social innovations have increased.

## METHODS

In the formation of the methodological foundations of this scientific category, three distinct directions can be distinguished from each other. Representatives of the first line R. Murray, J. Gotlier-Grays, J. Mulgan interprets social innovations as innovations towards achieving social goals. The authors of the second approach P. Koch, J. Haknes, K.A.Perri in this sense accepts the changes taking place in the public social sector. The third approach was formed at the Stanford social Innovation Center, where its authors P. Heyskal, J. Fillz, A. James, D. Kriss, D.T Miller is formed under the influence of scientific views and perceives the changes taking place in the social space as social innovations. This definition has in essence an institutional feature and refers to new types of products and services aimed at solving social problems in the social space.

From the sociological point of view, social innovations are the product of scientific and creative activity. Such a form of innovation creates actual changes in society, which subsequently become socio-cultural norms. In Plotnikov's sociological research, sociological innovations classify the phenomena and processes taking place in society as "human dimension ". After all, innovative activity encourages people to change the aggregate of internal and external means, which is considered a motive of action. Quickly adapting to the changing social reality, it creates the need to influence it as much as possible.

According to Prigojin, the subjects of social innovation are innovators, they differ from the creators (the author of the idea and popularizing it) and the Realizer (the authors of practical application, technological mastering and the introduction of new3), professional and reckless innovators in relation to the main specialty3.

The influence of the external environment, the problems that are not solved by traditional methods, the needs of society and its members, changes in their values serve as sources of Social Innovation. The accumulation of this or that social problem gives an impetus to the development of new ways of its solution in the social sphere. With the help of similar methods, innovative social solutions such as "trust phones", "social shelters" were found, which facilitated the exit of people from problematic situations.

Two features of Social Innovation make them radically different from other types of innovation. The first is the orientation towards the satisfaction of the socio-cultural needs of the society, and the second is the establishment of new social norms of attitude, which give impetus to the change of the usual behavior-author. Those who have developed Social innovations will have the status of "social innovator", regardless of whether they are a legal entity or an individual.

As a result of social innovations, material living conditions are improved, complex situations in the sossium are solved. Technologicalogen the tensions of development are softened. The social, economic and political-spiritual development trends that make up the top of society are o'ranatilad1. This means that social innovation is one of the most important directions in the field of social policy.

## RESULTS

It should be noted that trends represent the dominant trends of the transition of social innovation as a social process or phenomenon. Hence, the trends in social innovation are characterized by the content as "the direction of progress, interest in something, inclination, aspiration ". As can be seen from this comment, the trends in social innovation represent the dominant direction of a social event or process as a comprehensive understanding of the content. The term trend refers to the direction of the probability distribution of the development of events in the popular social trend in the scientific-popular publication along with the term trend. There is a small discrepancy between these two concepts, the peak of the trend is formed when the trend is wider than the trend. Hence, social innovations, which have taken their place in social life, as a process, have their own internal trends and trends. Bunda, public policy is one of the main sources that form the dominant trends.

Social innovations are social needs (employment, education, health, social protection, etc.).the G.) offers innovative solutions of innovative character in complex situations that arise in the satisfaction of ni. In this sense, social innovation is not only an idea, but also a practical value and demonstrates a positive result with its effectiveness in relation to existing ones.

Interest in social innovations in European countries is associated with the development of the paradigm of the coordinating role of the state. Bunda social innovation as a sustainable and "smart" mechanism of development leads to social cohesion and creates new models in social policy. Social innovations are also an important element of the transformation of relations between the state and civil society. Bunda's third sector and social partnership with the private sector in the social economy will play the role of social impulse<sup>1</sup>. The Model "third sector" implies multihamism in the implementation of new, socially progressive ideas into practice.

## DISCUSSION

In the conditions of civil society, the intensity of social innovation has a special impact on the initiatives of citizens. After all, civil society creates a favorable environment for social initiatives of high spiritual, self-sacrificing people and communities. This, of course, serves the social interests of society and strengthens the principles of social justice in society. International social innovation activity experience shows that in most situations ordinary citizens are considered initiators of successful social innovation. According to sociological research conducted in this regard, 70% of the world-known Social Innovations were developed on the initiative of ordinary citizens, while 80% were carried out without state participation<sup>2</sup>. In this sense, social innovations are considered an indicator of the development of civil society and complement the vacuum between the market economy and the state. According to its feature, social innovations can be Komplex or local, strategic and tactical, internal and external, dotted or diffuse (wide coverage )<sup>3</sup>.

According to the structure of the social sphere, management, education, employment, pension provision, culture, sports, health, etc.the G.taking into account the phraseology from human, we can distinguish the types of social innovations in the field of pedagogy, education, legal and management.

According to the direction of activity and purpose, social innovations are divided into the following types;

- socially oriented business-social goals to improve social relations and cooperate with the state;
- social inclusion-seeks to achieve a balance between social value creation and revenue generation;

- social enterprise is a type of organization aimed at achieving social goals and this is achieved through commercial strategy;
- non-profit enterprises – are not directed to net income, but can generate income for the purpose of supporting the activities of the organization. Such organizations offer social types of services to the population
- social cooperations are associations of citizens aimed at achieving social benefits.
- charitable projects-the direction of the received income to social goals and support the needy.

The practice of social innovation in Europe has launched a new approach in social policy, breaking the boundaries between public, private and civil society in social funds such as the European Union social fund, "ADAPT", "on the horizon", "LEADER1" in the 1990s. These funds have implemented programs, projects of gratuitous assistance in finding solutions to the social problems of people. It is noteworthy that social innovation is introduced in all spheres of social life, under almost one of the European and American OTMs, social Innovation laboratories are functioning.

In recent years, global projects Bitcoin, Open University, Kursera (Coursera), Khan Academy (KhanAcademy), big data (BigIssue), mass education projects have become popular as social innovations<sup>1</sup>. It is possible to show centers of social innovation in Canada "Social Innovation residence" in San Francisco "Social Innovation Summit" in Turkey "Forum of social innovation" in Austria "TACSI" in London "Young Foundation", center of Social Innovation at the School of Stendford, Center for Social Innovation and civic engagement in Washington, Ministry of Social Development and social innovation in British Columbia, centers of social entrepreneurship points as the whole.

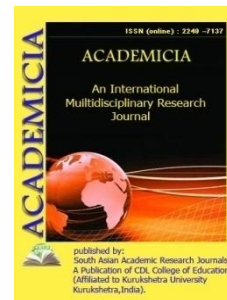
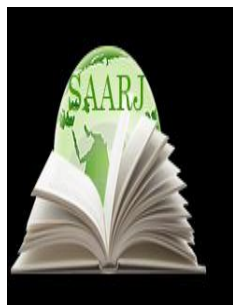
## CONCLUSION

It should be noted that the implementation of social innovations in the system of social protection of the population in the early stages of socio-economic reforms in Uzbekistan demanded the active participation of civil society institutions. It is precisely these institutions that have formed new innovative approaches, effectively using the internal potential of society in the support of socially vulnerable strata of the population. Bunda initiated the implementation of inter-sectoral cooperation of public organizations, thereby contributing to the acceleration of reforms of the state social protection system.

Social innovations in the development of science of our country are now among the concepts specific to the social sphere. The scientific-methodological interpretation of this concept is based on the social partnership of the public-private sphere, non-profit organizations, public associations. After all, social innovations are closely related to the traditional way of life in our country, the habit of living attached to neighborhoods. Neighborhoods have the feature of self-organization in helping people in need of social protection. MAh develop social cooperation in ensuring the addressability and purposefulness of legal and physical persons saxovat assistance to the gatherings of neighborhood citizens. Therefore, in our country, the concepts of social innovation and social investment are historically studied in a chamcharchas bond with the charitable activities of self-governing bodies.

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## THE NECESSITY OF ZIYARAH TOURISM IN THE SPIRITUAL PERFECTION OF PEOPLE

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### ABSTRACT

*In the following article the significance of pilgrimage tourism and its role in the ethical- spiritual development of the youth of Uzbekistan. The necessary issues of the tourism in Bukhara are analyzed. In the end of the article the proposal on the development of tourism is recommended. In this direction, foreign tourists have the opportunity to get acquainted with the architectural and archeological monuments of the ancient land, the ancient cities of the Great Silk Road, as well as the role of religious scholars in the spiritual life of Central Asia, their universal values, ideas of honesty, tolerance, rich historical monuments and culture. In particular, the visit of the President of the Republic of Uzbekistan Shavkat Mirziyoyev to Bukhara region on March 10-11, 2017 and his proposal on the concept of promoting the spiritual heritage and shrines "Seven Pirs" in Bukhara gave a great impetus to the development of pilgrimage tourism. These proposals of President Shavkat Mirziyoyev were welcomed by the general public.*

**KEYWORDS:** National Tourism, UNESCO, Pilgrimage, Spiritually Richness, Reliquiae, Boundary, Ancestor.

### INTRODUCTION

After gaining its independence, Uzbekistan pays special attention to the preservation and enrichment of the cultural and spiritual heritage of the country, the in-depth study of the history of its national statehood.

The existing pilgrimage sites and shrines in the country are the hearts of spirituality and enlightenment, which tell the younger generation about the difficulties, trials and tribulations of

today's peaceful life, prosperity and well-being, and serve to inculcate the national idea of Uzbekistan in their hearts and minds.

Today, due to its rich cultural traditions and active participation in the processes of world culture, Uzbekistan is gaining more and more prestige in the international arena. A vivid example of this is the fact that Uzbekistan joined the Executive Council of UNESCO in 1997 and 155<sup>th</sup> session of the Executive Council of UNESCO was held in Tashkent on November 6, 1998.

In this process, the role of Bukhara, one of the ancient cities of Uzbekistan, which is one of the tourist centers, is also unique. Especially, the citizens who visited the shrines and markets of ancient Bukhara, saw the impressions and joys of Uzbekistan, and every citizen living here is proud to live in Bukhara. Because Bukhara is an ancient center with a high culture and rich history, it has favorable opportunities for the development of domestic and international tourism in the field of pilgrimage tourism.

### MAIN PART

The country has launched a completely new direction of the economy – “Pilgrimage Tourism”, aimed at further development of international tourism and on this basis to promote the great historical and cultural heritage of the Uzbek people.

In this direction, foreign tourists have the opportunity to get acquainted with the architectural and archeological monuments of the ancient land, the ancient cities of the Great Silk Road, as well as the role of religious scholars in the spiritual life of Central Asia, their universal values, ideas of honesty, tolerance, rich historical monuments and culture.

In particular, the visit of the President of the Republic of Uzbekistan Shavkat Mirziyoyev to Bukhara region on March 10-11, 2017 and his proposal on the concept of promoting the spiritual heritage and shrines “Seven Pirs” in Bukhara gave a great impetus to the development of pilgrimage tourism. These proposals of President Shavkat Mirziyoyev were welcomed by the general public.

Indeed, Bukhara region is distinguished not only in Uzbekistan but also in the world by its richness of ancient, medieval and medieval architectural monuments. This can be seen in the fact that today the Bukhara State Architectural and Art Museum-Reserve has 997 historical monuments.

The core values of Islam, such as tolerance in interethnic and interreligious relations, mutual respect and harmony, the pursuit of peace and tranquility in the ideas propagated in the spiritual heritage of the “Seven Pirs” serve to educate the younger generation in the spirit of commitment to universal and national values.

Therefore, it should be noted that the organization of excursions in these areas for foreign and local guests visiting various sites in Bukhara region gives good results. The reason is that the excursion is a tourist service that ensures the satisfaction of the spiritual, aesthetic and information needs of tourists.

Also, the purpose of visiting the spiritual heritage and shrines of “Seven Pirs” is that the pilgrimage of “Seven Pirs” serves to meet satisfy the spiritual needs of the people, to instill in people a sense of peace and purity, contentment, gratitude. As a result, the tour to these places will help the younger generation to develop patriotism, respect for the memory and heritage of

ancestors, respect for national, religious and universal values, religious tolerance, a culture of interethnic harmony, youthful destructive, alien ideas, religious extremism and immunity against various currents. teaches possession, diligence, and honest living.

### **THEORETICAL BACKGROUND**

The significance of the sequence of the pilgrimage “Seven Pirs” is manifested, first of all, in the recognition of the scientific and spiritual heritage of great scholars, as well as the centuries-old traditions of teachers and students, logical evolution and membership in the Khojagon-Naqshbandi chain.

The visit to the “Seven Pirs” in Bukhara has become a tradition to visit the complexes and tombs of the following great scholars in the following order:

- Khazrat Abdukhalik Gijduvani.
- Khoja Muhammad Arif Ar-Revvari.
- Khoja Muhammad Anjir Faghnavi.
- Hoja Ali Romitaniy.
- Khoja Muhammad Boboi Samosi.
- Sayyid Amir Kulol.
- Hazrat Bohouddin Naqshband.

Of course, this trip will allow foreign tourists to learn about the ancient spiritual, educational, cultural and scientific heritage of the Uzbek people, especially the scholars of the Naqshbandi school and the respect of the local population. The Bukhara shrines inform them about the teachings of sufism and the history of sects. During the visit, foreign visitors will witness the great examples of medieval architectural culture of Central Asian sufism. They will also be provided with all the information on Pilgrimage Tourism.

### **RESULTS**

Thus, the main directions of pilgrimage tourism “Seven Pirs” can be identified as follows:

- to convey to the younger generation the teachings of the “Seven Pirs”, which include such noble views as honesty, purity, patriotism, devotion to the country, religious tolerance: organization of stands in shrines, publication of books, inclusion in the content of educational literature, installation of posters with exemplary proverbs, preparation of social advertisements;
- establishment of small museums of general information in the shrines “Seven Pirs”, the organization of an exhibition of handicrafts of the Pirs, reflecting the idea of honest work;
- preparation of the encyclopedia of “Seven Pirs”;
- preparation of information on pilgrimage tourism (seven pirs) to travel agencies. To take necessary measures to attract foreign tourists, in particular, from Eastern countries, to improve pilgrimage tourism. Preparation of short - length advertising rolls in order to attract visitors;
- creation of pilgrimage tourism infrastructure (cleaning rooms, canteens, restaurants, hotels and issues related to their activities, repairs, landscaping, etc.);

- organization of advanced training courses and internships for researchers of Islamic sites, history, culture and spiritual values of Muslim countries, historical and architectural complex, as well as for tourism workers and guides.

## CONCLUSION

So, at the end of the tour around the “Seven Pirs” every foreign and local tourist who came to visit comes to the following conclusions:

**First**, they will witness the richness of Uzbekistan in various historical monuments;

**Second**, they are convinced that the ancestors of the country are of high spirituality;

**Third**, they understand the efforts of the Scholars for the happiness and peace of mankind;;

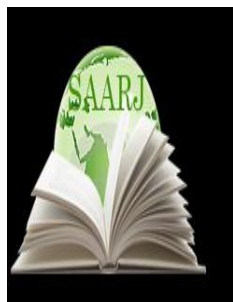
**Fourth**, they enjoy the tolerance and hospitality of the Uzbek people;

**Fifth**, they make sure that the shrines are a spiritual base.

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## THE ROLE OF ELECTRONIC-BOOKS IN DEVELOPING ENGLISH LANGUAGE LESSONS' EFFICIENCY: E-BOOKS, EBOOKS' AIM IN THE ELEMENTARY CLASSROOM

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### ABSTRACT

*Reading is a critical element in learning. How can we make reading more accessible and fun for students? Ebooks might be the answer. In this lesson, we will discuss how to use eBooks in the classroom. How many books do you think a classroom should have? Your answer might depend on the age of the students or even the size of the classroom. Can you imagine a classroom with a virtually unlimited supply of books? You might be envisioning a library with rows and rows of jam-packed shelves. That isn't practical in an individual classroom though, is it? Ebooks provide endless options for students yet require no physical space.*

**Key words:** *EBooks, Media, PDF, Elementary Classroom, Digital Version, Utilizing Media, Google Chrome books.*

### INTRODUCTION

EBooks, or electronic books, are digital copies of books. Ebooks can be accessed online or can be downloaded to a device. They often include images, animations, sounds and interactive components. Because eBooks go beyond words on a page, they appeal to a wide variety of readers and learners.

The simplest ebooks are simply a digital version of the actual physical book. They are no more than a PDF or some such. They don't come with any extra features other than what you get with the platform on which you are reading the ebook. These may include a dictionary to check terms or the capacity to annotate the book or take notes separately.

In other ebooks, there are interactive activities incorporated into the process to check whether the reader has comprehended the material, or whether there has been any improvement in their grammar or vocabulary.

The electronic books, or e-Books, offer students, teachers and schools an additional medium or tool of instructions that can support or enhance the learning process. All this while, the use of e-Books is limited to college students. Using e-Books as text books in the classroom at schools is a new paradigm especially in developing countries. As with all books, there are various types of e-at an e-Books is, and its advantages, limitations, strategies and framework of using it as a text book in classrooms. 12 Published by Elsevier Ltd. Keywords: E-Books, Textbooks, Classrooms; 1. Introduction It all began in 1971, when Project Gutenberg was started by Michael Hart who used computer to store, retrieve, and search information. It was named as e-Books or electronic versions of print books. Since that, this Project Gutenberg creates thousands of free texts and copies of books which can be downloaded or accessed online. The key definition of e-Book varies due to its nature and extent. The Oxford Advanced Learner's dictionary (2011) defines an e- , Arthur (2001), Dennis (2001), and Harold (2002) are among researchers who incorporate the conceptual definitions of e-Books. Somehow, Armstrong et al. (2002, p. 217) comes up with the definition used by many scholars: [ . . . ] any piece of electronic text regardless of size or composition (a digital object), but excluding journal publications, made available electronically (or optically) for any device (handheld or desk-bound) that includes a screen. (Becky Holton, a journalist and a blogger )

Now that we know what eBooks are, let's see how they can be used in the classroom. How would you use eBooks in the classroom? Your answer will likely depend on many different factors including the grade level of the students and resource availability.

## MAIN PART

Ebooks in the Elementary Classroom : a smartboard serves as a whiteboard and computer all in one. It projects digital content for group viewing. Many smartboards have speakers to integrate sound into presentations as well as integrated touch technology. A student can turn the pages of an eBook by swiping his or her hand across the screen of a smartboard. Of course, eBooks are not limited to smartboards. Students can access them on classroom computers, laptops, tablets or e-readers, small, portable, tablet style devices designed strictly for reading. The options are nearly endless for the use of eBooks in primary education.

The use of media to enhance teaching and learning complements traditional approaches to learning. Effective instruction builds bridges between students' knowledge and the learning objectives of the course. Using media engages students, aids student retention of knowledge, motivates interest in the subject matter, and illustrates the relevance of many concepts.

Teaching with Media to Enhance Teaching and Learning-media – like all other teaching techniques – should be used judiciously in the learning process. Media can be used to motivate discussions or lock in concepts. However, there are a number of important considerations for faculty before they integrate media or ask their students to use or develop media in their courses. This section explores tips for effectively using media, notes a number of common mistakes to be avoided and describes how to involve students in creating media on their own. The dramatic growth of social media creates new opportunities for engaging students. These include social

networking sites such as Facebook, MySpace, LinkedIn, and Twitter along with blogs and wikis. (Ali A R Aldallal University Of Kufa)

Media can be a component of active learning strategies such as group discussions or case studies. Media could be a a film clip, a song you hear on the radio, podcast of a lecture or newspaper article. Students can also create their own media. For example, student video projects can be a powerful learning experience.

The use of media to enhance teaching and learning complements traditional approaches to learning. Effective instruction builds bridges between students' knowledge and the learning objectives of the course. Using media engages students, aids student retention of knowledge, motivates interest in the subject matter, and illustrates the relevance of many concepts.

Existing media resources can be used within lectures to stimulate interest in and develop knowledge of the material being taught. This traditional approach is teacher-centric, and information is pushed to the learner. Media allows the instructor to facilitate the transfer of expert knowledge to novice learners. Given the tremendous rate of technological change, instructors face an ongoing challenge in choosing the most effective media platform to reach their students. Instructors can also create their own media to effectively and efficiently convey knowledge.

Existing media resources can also be used to engage students and facilitate active learning strategies which promote deeper learning. For example, media provides a useful platform for teaching with cases, cooperative learning, problem solving, and for giving more interactive lecture demonstrations. Student-created media involves a high degree of engagement; promotes individual learning, social interaction and immersion; and is highly customizable and collaborative (Yowell and Rhoten, 2009). Student-created media provide an alternative or a complement to traditional undergraduate student research. By doing a digital storytelling project, personal reflection and communication by students can be promoted.

Research suggests that people learn abstract, new, and novel concepts more easily when they are presented in both verbal and visual form (Salomon, 1979). Other empirical research shows that visual media make concepts more accessible to a person than text media and help with later recall (Cowen, 1984). In Willingham's (2009) research he asks a simple question to make his point, "Why do students remember everything that's on television and forget what we lecture?" -- because visual media helps students retain concepts and ideas. Branford, Browning, and Cocking (1999, p 194) also note the crucial role that technology plays for creating learning environments that extend the possibilities of one-way communication media, such as movies, documentaries, television shows and music into new areas that require interactive learning like visualizations and student-created content. Many media sources (feature films, music videos, visualizations, news stories) have very high production quality capable of **showcasing complex ideas** in a short period of time. This helps develop quantitative reasoning. Learn more about this technique using the Teaching Quantitative Reasoning with the News module. Media offers both cognitive and affective experiences. It can **provoke discussion, an assessment of one's values, and an assessment of self** if the scenes have strong emotional content. The use of media sources help **connect learners with events that are culturally relevant**. As a result, a positive consequence of utilizing media is that instructors must keep their materials and examples up-to-date. News stories can be used to **connect theories taught in the classroom with real world**

**events and policies.** Popular media (films, music, YouTube) are a familiar medium to students that helps gain attention and **maintain student interest** in the theories and concepts under discussion. Students can see the theories and concepts in action. In more than a figurative sense, theories and concepts leap from the screen. Students can **hone their analytical skills** by analyzing media using the theories and concepts they are studying.

The use of media in the classroom **enables students to see concepts and new examples** when they are watching television, listening to music, or are at the movies with friends. Students can **experience worlds beyond their own**, especially if the media is sharply different from their local environment.

Using media oftentimes requires additional work (e.g. prepositioning a DVD it at the start of a scene before class, digitizing media for playback on a computer and making sure that the audio-visual equipment is functioning properly beforehand). Media scenes (e.g. humor, drama, terror, and language) may distract some students from the theories and concepts the scenes portray. Some students may become offended by media with objectionable content.

Utilizing media takes time away from other classroom activities. Instructors need to decide whether the media makes its point efficiently and with enough effect to warrant the use of class time. Media that are short (generally 10 minutes or less) minimize the class time spent on content unrelated to the learning objectives.

Students will be reading these apps on a smart phone or tablet, or some other kind of smart device. These have various capabilities, like voice recording capabilities, or video recording capabilities. They are also able to support many free apps that can turn what is basically a passive and receptive lesson into something where the student interacts continuously with the book and even engage the creative process to come up with their creations as part of the learning process. Once students create their own work, they can share them in the form of an email or a blog that is dedicated to classroom activities.

Here are five simple ways that teachers are using ebooks to enhance classroom learning and development.

#### 1. Entice with pre-reading teasers.

“Pre-reading tasks play the role of motivating the learner, especially when students are asking ‘Why do I need to learn this?’” says Thomas Wood of [Best Essay Tips](#).

Before you present a topic to any learners, you will need to prove its relevance to their lives and future. Pose questions that intrigue them. Encourage students to do a little research. By the time they are tackling the actual book, they are more prepared to learn.

#### 2. Enrich with multimedia.

Ebooks don’t just include text. They often include other forms of media that you wouldn’t find in a print book: audio, video, and 3D models.

Foreign languages come to life as students hear the strange new words and sentences pronounced naturally. Stories of historic events enter our world and imagination with videos. Science labs become more tangible when 3D models are available for students to explore. Media enriches lessons and imagination for students and teachers alike.

### 3. Engage with Interactive Content

While a print book is passive and depends on the memory of the student alone, an ebook is interactive and pulls readers into interactive games, questions, and even online discussions, enticing students to engage with the ebook. Kinesthetic learners no longer feel alienated by dull passive-learning books.

### 4. Provide Countless Resources

Expand the resources you make available for your students. With a simple phone, tablet, or e-reader, a student can carry the equivalent of an entire library in the palm of their hands, which means they have access to a lot more material than they would have otherwise. Teachers can curate the lists of recommended readings and with so many free school ebooks, students become independent self-learners.

### 5. Open Doorways to Elearning

Ebooks are only one kind of digital technology among many out there, and they help to introduce the students to the wonderful world of digital learning. Students can begin blogging, vlogging, creating their own ebooks or even their own apps. Sharing and collaborative platforms facilitate discussions and often form a launching pad for students to begin student-initiated and driven projects.

The argument over whether children's digital books count as educational storytime or just screentime has been going on for a while. Given that digital interactive books (often called storyapps) are hybrids of books, short films and digital games, their educational value largely depends on whether they are used to promote specific literacy skills or just to have fun with a story.

Many schools have begun to use iPads, Google Chromebooks and other portable touchscreens in lessons, giving children more opportunities to access digital books and storyapps. Accessing an interactive digital book is a different experience from clicking through an e-book on the desktop PC and many teachers, especially those in primary schools, are legitimately questioning the value of using these resources in their literacy lessons. Digital books with interactive features such as games and hotspots (areas in the digital text or image which act as hyperlinks, activated by tapping on the screen) have been found to impede children's story comprehension and vocabulary learning. Yet, there is also evidence to suggest that children are attracted to and motivated to read those digital books which are fun and personalisable and that children do access such books at home.

Teachers are keen to explore the dual purpose of digital books and literacy apps to entertain as well as educate. This means the best ones in an educational context have high-quality texts as well as a digitally enhanced narrative and open up the world of imagination, with possibilities for children to be creative and explore their own ways into a story or literacy activity. Digital books which can meet both objectives are therefore likely to be successful.

## CONCLUSION

With the variety of interactive content in ebooks, learning becomes easier for all types of learners: auditory, visual, kinesthetic and even tactile learners. Ebooks are the future of the classroom, alongside many other kinds of digital technology. While physical reading materials

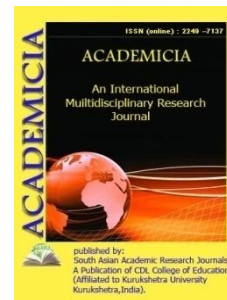
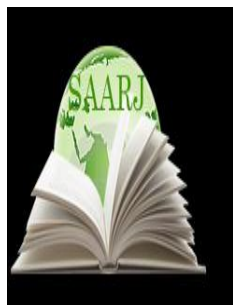
will always have their allure, ebooks add a new and revolutionary dimension that your students will definitely come to enjoy. It will also make your life easier as a teacher.

Although using digital books is different from printed books, the basic principles of effective implementation of a new resource in the classroom still holds. Teachers need to get familiar with the technology before they can explore the different features embedded in the app. They need to get familiar with the particular digital book and the content of the story. This is fittingly summarised in a framework developed by American educational psychologist Kathleen Roskos and researcher Jeremy Brueck and presented at a recent conference about digital literacy for pre-schoolers: 1. know your device; 2. know your e-book; 3. establish routines; 4. link apps together; and 5. be persistent.

The old mantra that high-quality professional development for teachers may be the most important thing schools can do to improve students' learning still holds true with digital books. Leaving the choice of which digital book or app to use to the professionals – in this case the teachers – is the best indicator for knowing what works in practice. ( *Dana Dance-Schissel*)

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## USING THE "CREATIVITY" METHOD IN ONLINE LESSONS (BASED ON 5TH GRADE LITERATURE CLASS)

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### ABSTRACT

*This research paper aims to analyze the "Creativity" method of research in online classes organized in the 5<sup>th</sup> grade in the telegram network in distance learning. At the same time, on the basis of the method of comparing four categories of students in the course of literature "Creativity" in the 5<sup>th</sup> "I" class of students of the 11<sup>th</sup> SSISCS in Navoi, The Republic of Uzbekistan. analysis of the interactive method and the results obtained from them. From these results it can be seen that the method used on the basis of collaborative technology reveals that different categories of students can lead to the same result, the same category of students can lead to different results. The "Creativity" method reveals students' inner talents and encourages them to think creatively and to come up with promising ideas.*

**KEYWORDS:** *Online Learning, "Creativity" Method, Category Of Students, Students With High Interest, Students With Interest, Students With Average Interest, Students With Low Interest.*

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## I. INTRODUCTION

Today, the spread of the pandemic around the world has placed great demands on the education system of Uzbekistan, as well as on the world education system. These requirements have led to the widespread use of distance learning, including online classes, in a very short period of time, and the growing demand for such classes. Today's distance learning system is a fast-growing form of education. What is the problem with studying this topic? The problem is that there are no scientific sources, textbooks or manuals on online lessons that are widely available throughout Uzbekistan. In addition, according to the decision of the Cabinet of Ministers of the Republic of Uzbekistan, from March 16, 2020, all stages of public education; preschool education, primary education, secondary education, higher education, and postgraduate education are among the main reasons for online classes. Sources on the subject, as well as information on the Internet, revealed some gaps. It was observed that these gaps do not have clearly effective teaching methods, that there are problems in assessing students' knowledge in the online teaching process, and that some of the students being assessed are prone to duplication. Unexplored problems and gaps are due to the fact that methods have not been developed for each subject. The goals and objectives of the research, which stems from these problems and gaps, are to increase interest in science in the 5th grade at schools, to develop ideological consciousness, to form the hidden abilities of the learner. These requirements have led to the widespread use of distance learning, including online classes, in a very short period of time, and the growing demand for such classes. Today's distance learning system is a fast-growing form of education. What is the problem with studying this topic? The problem is that there are no scientific sources, textbooks or manuals on online lessons that are widely available throughout Uzbekistan.

## II. EXPERIMENTAL PART

Today, every teacher is creating a lesson that is relevant to his / her effective experience in the field of science, computer literacy, understandable and convenient for all students, and compatible with the electronic device of students on the Internet. These classes are conducted by telegram in the general secondary education system in Uzbekistan. The attitude of students participating in online classes in the telegram network to the interest in science and mastery of the subject is very different.

**Category 1.** Interested students. He /She has a clear purpose, learns the subject responsibly, knows that this subject will help him to enter the future universities, so he is eager to achieve the goals in the future.

**Category 2.** Interested students have a clear purpose and study the subject responsibly, but are afraid of making mistakes because of their parents' demands for higher grades, therefore, let himself copy from others.

**Category 3.** Intermediate students of interest. Intermediate students who do not have a clear goal yet, do not know whether the subject is necessary for their future or not, and are interested in studying at the request of teachers and parents.

**Category 4.** Low-interest students. Although the learner knows that the subject will benefit him for the future, a low-interest student who does not want to study despite the demands of his parents and teachers.

What should be done to bring these 4 groups of students together to achieve high results? It is necessary to choose a new method of teaching through deep observation, which should be understandable to all students, as well as to suit their interests, to help them fully master the subject. One such method is "*Creativity*" method. In this case, traditional methods are abandoned and non-traditional methods are more used. Before giving a full account of this method, it should be noted that it is a new method of teaching, which has not been found in any scientific literature.

### **What is distance learning in education ?**

Distance learning can be defined as a process whereby tutor and student are separated spatially and by time (Liu, 2008) and it relates to programs of study which are delivered entirely off-campus. The term 'distance learning' has been used in the literature to incorporate programs that are based online but which also include face-to-face contact sessions. Such programs are referred to in this paper as 'blended learning' programs. Education delivered at a distance is also variably referred to as 'e-learning', 'on-line learning' and 'distance education' (Liu, 2008). This study relates solely to distance learning whereby the courses are delivered remote from the university (and any hired off-site facility) and whose students and staff never meet face-to face.

Lake (1999, p.14) notes that 'technological change has enabled the materials of education to be dispersed economically in new ways with fewer temporal and spatial constraints'. Students therefore no longer need to attend regular lectures delivered in theatres alongside other students at a predetermined time and location, and they encounter a different learning environment.

Barriers and challenges to the learning experience identified in the literature, including isolation, are examined and expanded through examining student experiences on four asynchronous programmes at the University. Potential solutions to overcome these and create a successful virtual learning community are proposed and evaluated, recognising that any such improvements will need to be reconciled with an identified primary benefit of studying at a distance: that of *flexibility*, in terms of time, convenience and location.

### **The "creative" method**

#### **Definition:**

In this method, it is possible to think about a specific topic, to fully cover any student, to master the topic in a way that suits his level of interest, to demonstrate his ability to be creative, to bring something new to the learner. This includes writing a poem, drawing, tuning, creating an image using one hand, comparing a work with another work or a character whose life has a prototype, and conveying the topic by sending a message in the form of a video or audio.

*The purpose of the method:* To teach students to think freely, independently, logically, to search for a given topic, to form theoretical and practical concepts, to apply the acquired knowledge in practice, using their inner abilities.

*Scope of use:* It can be used in teaching all disciplines, such as social sciences and humanities, natural sciences. Once the assignments are tailored to the topic of study, a group of students of a certain age can be used in distance learning, open discussion classes, seminars and workshops.

#### **Stages of application and requirements:**

1. In this way the student is fully get acquainted.
2. Instructions are given on a specific topic.
3. The direction of the activity is determined by the ability of each student and his / her ability at the given time.
4. The type of activity chosen by the student is supported when covering the topic.
5. The results obtained are discussed.
6. Each result is summarized and encouraged.

### **III. EXPERIMENTAL RESULTATS AND THEIR DISCUSSION**

We will focus on the analysis of the “Creativity” method used in the online lesson in the 5th grade literature class. First of all, let's look at the participation of students in three lessons. Because the effectiveness of the lesson depends primarily on the participation of students at the lesson.

Class	Specialized subject	Lesson number	Total number of students	Number of students connected via the Internet	The reason for not connecting to the Internet
5 – “I”	English Language	1	29	26	3 did not participate: Student 1 does not have a personal device to connect to the Internet. Student 2 is located outside the Internet. Student 3 does not have good Internet literacy.
5 – “I”	English Language	2	29	27	Student 1 is located offline. Student 2 does not have good Internet literacy.
5- “I”	English Language	3	29	29	All students were fully participated

Let's analyze the situation as shown in this table. A first student who did not attend the 1<sup>st</sup> lesson I did not have a personal device to connect to the Internet, but one of his family members has. He can only participate in the lessons when his family members are with him. Although he was not able to attend Lesson 1, he was able to attend Lessons 2-3.

The second student, who had no Internet connection, was not able to attend Lessons 1-2, but took the opportunity to attend Lesson 3.

3 students who could not connect to a network with poor Internet literacy also connected to a network after the lessons 1-2. Now the problem with the participation of students in the lesson has been solved.

We will consider the application, results and discussion of the main method of "Creativity" only in Lesson 1. Topic of Lesson 1: Muqimi's "Travelogue". Here we analyze the creativity and results of 29 students in 4 categories.

Class	The method used and category of students	The result achieved by the student in the process of mastering the topic	Obstacles and problems encountered in the process of mastering the student's topic
5- "I"	<b>"Creativity" Highly Interested students</b>	1. Total of 15 students drew pictures according to the names of places described in the work "Travelogue", named them, drew pictures of people in the work.	1. Not all students were able to choose the right colors, the color of the pencil, felt-tipped, gouache used for painting was not enough for everyone.
		2. 5 students were inspired by the Travelogue and wrote a poem about their journey	2. In some it was observed that the form did not match the content, there was a restriction from the rules of rhyme.
5- "I"	<b>"Creativity" Interested students</b>	Total of 7 students revealed the similarities between the place names in the works of art they read and the characters in them, the place names in the Travelogue and the names of the characters.	3. They did not face the obstacle because the students also studied the books at home.
		2. Students Compared cartoon, film and the art heroes as a prototype, citing the names of the characters in the work.	2.1. Some students have limited literary language.
5- "I"	<b>"Creativity" Moderately interested students</b>	Total of 5 students memorized excerpts from the work and sang them	1. The student's interest in the subject is due to his / her ability to master the subject, but the reason for the obstacles and problems is that he / she belongs to the middle category.
5- "I"	<b>"Creativity" Slightly Interested students</b>	1. Total of 5 students translated some parts of the poem into English and video taped some of them explaining to family members	1. Minor shortcomings in translation and video recording

Now, despite the fact that the first group of students did their homework on time, they made mistakes, but these mistakes can be corrected, the main thing is that they did not make mistakes by copying from a ready source.

Category 2 students completed the task on time, used the most convenient method, and relied on available resources at home. The similarities between students in categories 1 and 2 are that they are both capable and responsible students. That's why they did their job. Category 1 students are not afraid to make mistakes, so they chose a difficult path. Category 2 students, fearful of being underestimated in the task, associated with well-known heroes.

Category 3 students were able to think as creatively as Category 1 students, even if their interest in the task was in the middle category and they made mistakes and shortcomings. They came up with new ideas.

Category 4 students with low interest showed their hidden inner skills by using a new method, even though they made mistakes in their work. The text was translated into English, revealing interdisciplinary connections.

#### IV. CONCLUSION

To sum up, while students in categories 1 and 2 with the same abilities thought differently, students in categories 1, 2, and 3 in different categories thought the same creatively in the performance of the task. As a result, all students are fully interested in science and mastering the topic.

#### Advantages of the "creative" method:

1. The teacher comes up with more new ideas than students expect;
2. Students become more interested in the subject by working on themselves, spending more time on it
3. New aspects of student ability can be discovered and applied in life.

#### Challenges of the "Creativity" method:

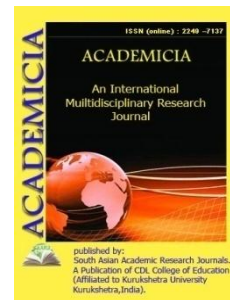
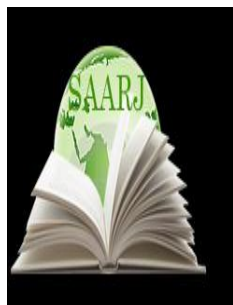
1. It can be difficult to form the abilities of each student correctly, to quickly identify and eliminate shortcomings, and to prevent these shortcomings.
2. It takes a lot of time to check, analyze and discuss the results.
3. Not all students can connect to the full Internet network when classes are conducted online.

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## CATALYTIC SYNTHESIS OF ACETONE FROM ACETYLENE

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### ABSTRACT

*The vapor-phase hydration of acetylene with the formation of acetone on polyfunctional catalysts has been studied. The process parameters have been found that ensure the production of acetone with high selectivity and conversion of acetylene. As a result of studying the effect of temperature on the yield of acetone, it was found that in the temperature range of 360-500<sup>0</sup>C the dependence between the reaction yield and temperature is extreme and at 450<sup>0</sup>C the yield is maximum. Based on the study of the kinetic laws of the reaction, the mechanism of acetone formation in the presence of a given catalyst based on the kinetic equation of the reaction to obtain acetone by catalytic hydration of acetylene and the results of experimental and qualitative and quantitative compositions of reaction products.*

**KEYWORDS:** Acetone, acetylene, vapor-phase, hydration, BET equation, diffract meter

### INTRODUCTION

Acetone is a valuable chemical product. It can be obtained by oxidative dehydrogenation of isopropyl alcohol, oxidation of propylene, decomposition of acetic acid and ethyl alcohol, oxidation of cumene, etc. [1-7].

Among the known processes for the production of acetone, the most promising is the synthesis by hydration of acetylene in the presence of catalysts. The advantage of this method is the possibility of carrying out the process in existing installations for the production of acetaldehyde. On the other hand, the process of simultaneous production of acetaldehyde and acetone under the

action of polyfunctional catalysts and the implementation of the process by flexible technology are promising [8-12].

Currently, acetic aldehyde is mainly obtained by two methods - hydration of acetylene and oxidation of ethylene [13-17].

The process of hydration of acetylene to acetaldehyde in the presence of catalysts has been studied quite well. Numerous catalysts have been proposed for this process [18-20]. Among the known catalysts for the hydration of acetylene to acetic aldehyde, the most active was the cadmium-calcium-phosphate catalyst (CKF), which is recommended for industrial use [21-23]. However, the cadmium-calcium-phosphate catalyst is not without its drawbacks. The average output of acetaldehyde per one pass of acetylene does not exceed 7.0%. The FCC catalyst is very sensitive to temperature changes, its service life before regeneration does not exceed 72-76 hours.

Hydration of acetylene in the presence of a catalyst can be carried out in order to obtain acetone. The advantage of this method is the possibility of carrying out the process in existing installations for the production of acetaldehyde. Replacing the cadmium-calcium-phosphate catalyst with a zinc-containing catalyst makes it possible to obtain acetone with good yield with minor changes in technology.

The production of acetone from acetylene in one phase by passing a mixture of acetylene with steam over catalysts at high temperatures is undoubtedly of considerable practical and theoretical interest [27].

## EXPERIMENTAL PART

Experiments on the catalytic hydration of acetylene and its derivatives in the gas phase were carried out on a reactor 25 mm in diameter and 1000 mm in height, made of stainless steel under stationary conditions. The qualitative and quantitative composition of the reaction products was studied by gas-liquid chromatography under the following conditions: stationary phase 15% Apiezon-M in Cvetochrome, column thermostat temperature 80°C, carrier gas flow rate - helium 60 cm<sup>3</sup> / min, detector-DIP. Quantitative analysis was carried out using the method of internal standards [24-26].

Specific surface area, crushing strength, total pore volume and ash content of the samples were determined.

The specific surface area was determined by the method of thermal desorption of nitrogen in a flow of a carrier gas - helium at the boiling point of liquid nitrogen; the experimental data were processed using the BET equation.

The phase composition of the samples was determined by the method of X-ray diffractometry, the shooting was carried out on a DRON-3M diffractometer on CuK<sub>α</sub>-radiation with a Ni-filter, the length of the X-ray radiation  $\lambda = 1,54 \text{ \AA}$ .

The specific surface area of the obtained catalyst was calculated by the BET method. Dispersed properties of the catalyst were studied using a scanning electron microscope (JSM-6510 LV). The catalytic activity of the obtained sample was studied using the acetylene hydration reaction.

Acetaldehyde and acetone were synthesized as follows. Acetylene was saturated with water at a temperature of 70-80°C and at a ratio of water: acetylene = (1: 3) - (1: 5) mol was passed through the catalyst bed at 360°C with a space velocity of 180-200 h<sup>-1</sup>. The vapor-gas mixture leaving the reactor was cooled in a refrigerator. The reaction products were trapped in water. The catalyst contains acetaldehyde, acetone, crotonaldehyde, paraldehyde, etc. In order to maintain the degree of acetylene conversion at least 80%, the reaction temperature was raised by 10°C every 20 h. After 96-120 hours, the degree of conversion of acetylene decreases to 75-70%. Then the reaction was stopped and the catalyst was regenerated in a known manner [3,4].

Subsequently, the effect of various parameters (temperature, space velocity, acetylene-water ratio) on the acetylene conversion and acetone yield was studied.

As a result of studying the effect of temperature on the yield of acetone, it was found that in the temperature range of 360-500°C the dependence between the reaction yield and temperature is extreme and at 450°C the yield was considered maximum.

Recently, the sol-gel method has been intensively used for the synthesis of inorganic and organo-inorganic matrices at low temperatures. This method has a number of advantages: the simplicity of the used equipment of devices, efficiency, environmental safety, low cost, adaptability of technologies, and others.

Nanocatalysts exhibit high catalytic activity, selectivity, stability (stability).

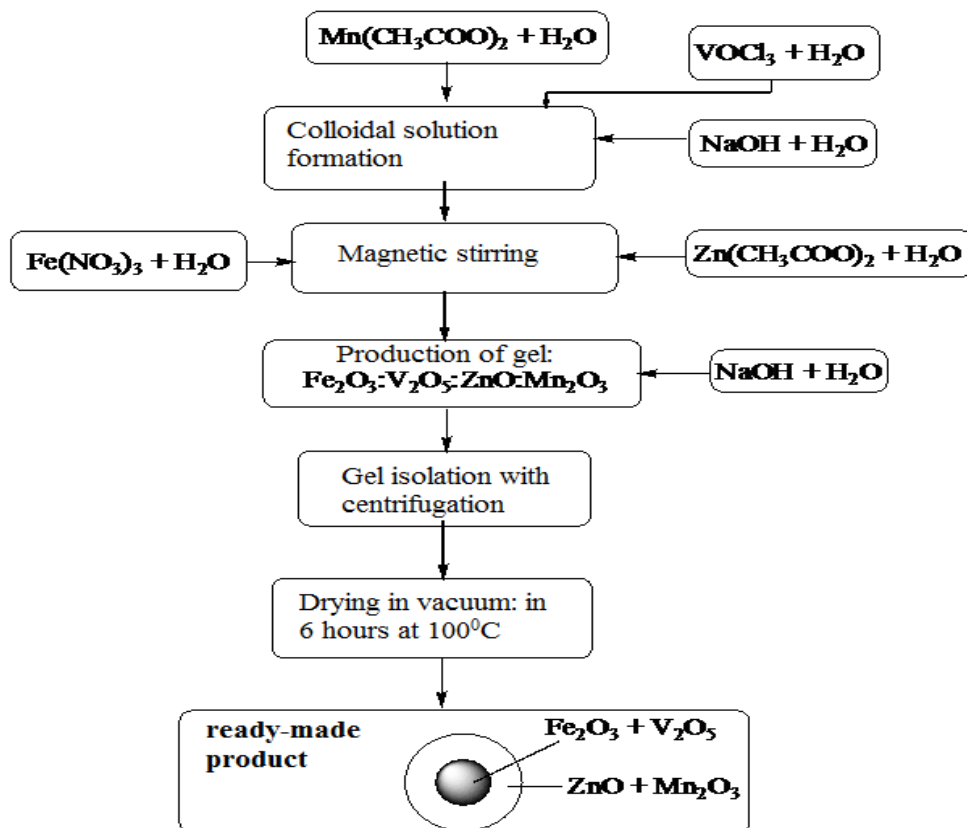
The prospect of using catalysts with nanoparticles in catalysis is associated with two features. First, as the particle size decreases, most of the atoms are located on the surface; therefore, the catalyst consisting of nanoparticles has a large surface and becomes very active in heterogeneous reactions.

Second, most of the properties of nanoparticles are related to their size (size efficiency); therefore, changing the size of nanoparticles can control not only the activity, but also the selectivity. As the catalyst particle size decreases, the reaction rate sharply increases.

Based on the foregoing, the study of the possibility of using nanocatalysts based on the metals Zn, Mn, Fe, V and other elements with polyfunctional properties for the hydration reaction of acetylene and its derivatives is an urgent task.

Sol-gel technology is one of the methods for producing nanocatalysts based on the synthesis of inorganic and inorganic-organic hybrid materials from colloidal particles. The use of the sol-gel method in petrochemical synthesis can ensure the production of crystalline nanoparticles and lower the synthesis temperature of a single-phase product. Therefore, at present, studies devoted to the synthesis of nanocatalysts for petrochemical synthesis are relevant. Proceeding from this, we studied the process of acetylene hydration to obtain acetaldehyde, acetone, or their mixture in the presence of mixed polyfunctional nanocatalysts [2].

Scheme of the synthesis of nanoparticles with the composition  $Fe_2O_3 : V_2O_5 : ZnO : Mn_2O_3$  with a core-shell structure:



The specific surface area of the obtained catalyst was calculated by the BET method, and the average mesopore size was calculated by the VUA method. The phase composition was studied by X-ray diffraction on a DRON-3 diffract meter ( $\text{CuK}\alpha$  radiation). Dispersed properties of the catalyst were studied using a scanning electron microscope (JSM-6510 LV). The catalytic activity of the obtained sample was studied using the acetylene hydration reaction.

The reactions of catalytic hydration of acetylene were carried out in a reaction glass tube 2 cm in diameter, the length of the catalyst layer was 60 cm, and the catalyst volume was  $90 \text{ cm}^3$  (the true volume of the catalyst was  $25 \text{ cm}^3$ ).

The qualitative and quantitative composition of the reaction products was studied by gas-liquid chromatography under the following conditions: stationary phase 15% Apiezon, M in Cvetochrome, column thermostat temperature  $80^\circ\text{C}$ , carrier gas flow rate — helium  $60 \text{ cm}^3 / \text{min}$ , detector-DIP. Quantitative analysis was carried out by the method of internal standards.

Subsequently, the effect of various parameters (temperature, space velocity, acetylene-water ratio) on the acetylene conversion and acetone yield was studied.

As a result of studying the effect of temperature on the yield of acetone, it was found that in the temperature range of  $360\text{--}500^\circ\text{C}$  the dependence between the reaction yield and temperature is extreme and at  $450^\circ\text{C}$  the yield is maximum.

To maintain the conversion of acetylene at a constant level of 80-85%, it is necessary to increase the temperature by  $10^\circ\text{C}$  every 15-20 hours.

Effect of temperature on reaction yield. The newly formed composition has a high activity and productivity  $(\text{Fe}_2\text{O}_3)_x \cdot (\text{V}_2\text{O}_5)_y \cdot (\text{ZnO})_z \cdot (\text{Mn}_2\text{O}_3)_k$  when the effect of temperature on the yield of acetone in the presence of a catalyst was studied, it was found that the optimum temperature for the hydration reaction of acetylene was 425°C (Table 1).

**TABLE 1. EFFECT OF TEMPERATURE ON ACETYLENE CONVERSION, ACETONE YIELD AND PROCESS SELECTIVITY (CAT  $(\text{Fe}_2\text{O}_3)_x \cdot (\text{V}_2\text{O}_5)_y \cdot (\text{ZnO})_z \cdot (\text{Mn}_2\text{O}_3)_k$ )**

No	Temperature, °C	Total conversion of acetylene, %	Yield of acetone, %	Selectivity, S %
1	280	18.2	10.0	54.90
2	330	33.5	20.6	61.2
3	350	48.5	32.6	67.2
4	375	52.4	41.7	73.4
5	400	65.8	58.5	88.9
6	425	94.8	86.4	91.1
7	450	86.5	70.8	81.8
8	475	90.8	68.4	75.3

The table shows that when the temperature reaches 425°C, the yield of acetone is 86.4%, and the selectivity of the process to acetone is 91.1%.

### EFFECT OF VOLUMETRIC VELOCITY ON ACETYLENE CONVERSION AND ACETONE YIELD

The effect of volumetric velocity on acetone yield and acetylene conversion was also studied, and the experimental results are presented in Table 2.

As the volume rate of acetylene increases, its overall conversion decreases, as shown in Table 2.

**TABLE 2. EFFECT OF VOLUMETRIC VELOCITY ON ACETALDEHYDE YIELD AND ACETYLENE CONVERSION (CAT №4; T = 425°C)**

Volumetric velocity hour <sup>-1</sup>	Rotation rate of acetylene, %		S, %
	General	Acetone	
40	98.2	34.3	34.9
60	97.6	44.8	45.9
80	96.5	55.7	57.7
100	95.2	68.8	72.3
120	94.8	86.4	91.1
140	92.6	69.4	74.9
160	90.2	50.8	56.3
180	87.7	38.2	43.6

Influence of reagent ratios on acetylene conversion and acetone yield. The effect of  $\text{C}_2\text{H}_2:\text{H}_2\text{O}$  mole ratios on acetone yield and acetylene conversion was also studied. The results of the experiment are presented in Table 3.

**TABLE 3. INFLUENCE OF C<sub>2</sub>H<sub>2</sub>: H<sub>2</sub>O MOLE RATIOS ON ACETONE YIELD**(T = 425<sup>0</sup>C, catalyst №4; V<sub>C<sub>2</sub>H<sub>2</sub></sub> = 120 h<sup>-1</sup>)

№	C <sub>2</sub> H <sub>2</sub> :H <sub>2</sub> O ratio	Acetylene conversion, %		Selectivity S%
		General	Acetone	
1	4:1	44.8	22.3	49.8
2	3:1	65.7	46.8	71.0
3	2:1	78.6	71.4	78.1
4	1:1	86.2	71.8	83.3
5	1:2	94.8	86.4	91.1
6	1:3	88.5	79.8	90.7
7	1:4	93.4	72.5	77.6

Kinetic model and mechanism of the catalytic hydration reaction of acetylene. It is known from the scientific literature that there is no single view on the kinetic laws of this process and the mechanism of the process. Therefore, to study the kinetic laws of the catalytic hydration reaction of acetylene, the effect of water and acetylene partial pressures on the rate of acetone formation at a temperature of 400-475<sup>0</sup>C in the range of 25<sup>0</sup>C and a volumetric velocity (on acetylene) of 120 h<sup>-1</sup> was studied.

The effect of the partial pressures of the reagents on the kinetic laws of the process was carried out by changing the partial pressure of one reagent while maintaining the partial pressures of the remaining reagents at a constant rate. In order to keep the linear velocity of the initial mixture constant, the required amount of pure argon gas was sent to the reaction zone (field) as needed. The catalyst volume was adjusted accordingly to maintain a constant rate of acetylene flow. As a result of studying the effect of partial pressures of acetylene and water on the kinetic laws of the reaction, it was found that the yield of acetone increases with the decrease of the partial pressure of acetylene. At this time, the total conversion of acetylene increases, while the selectivity of the reaction relative to acetone decreases.

Based on the study of the kinetic laws of the reaction, the following kinetic equation for the reaction of obtaining acetone by catalytic hydration of acetylene was proposed:

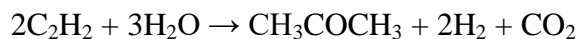
$$K_p = \frac{P_{C_3H_6O} \cdot P_{CO_2} \cdot P_{H_2}^2}{P_{C_2H_2}^2 \cdot P_{H_2O}^3}$$

The relationship between lg K<sub>p</sub> and temperature is expressed as follows:

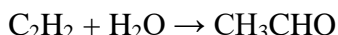
$$\lg K_p = \frac{17637}{T} - 2,611 \lg T + 1,356 \cdot 10^{-3} T - 0,092 \cdot 10^{-6} T^2 - \frac{0,223 \cdot 10^5}{T^2} - 3,794$$

Based on the results of the experimental and qualitative and quantitative compositions of the reaction products, the following scheme of the mechanism of acetone formation in the presence of a given catalyst is proposed:

The formation of acetone can be expressed in the form of the following sum equation:



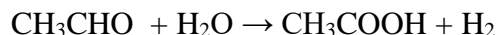
The formation of acetylene is explained by the following reliable mechanism: first acetylene is hydrated and acetaldehyde is formed:



Acetaldehyde reacts with water vapor to form acetone:



The formation of acetic acid as a result of the reaction can also be considered as the result of the following reaction:



Some of the acetic acid formed is converted to acetone by the release of carbon dioxide and water:



The above method of obtaining acetone is a promising method for Uzbekistan.

## CONCLUSION

The vapor-phase hydration of acetylene with the formation of acetone on polyfunctional catalysts has been studied. The process parameters have been found that ensure the production of acetone with high selectivity and conversion of acetylene. As a result of studying the effect of temperature on the yield of acetone, it was found that in the temperature range of 360-500°C the dependence between the reaction yield and temperature is extreme and at 450°C the yield is maximum.

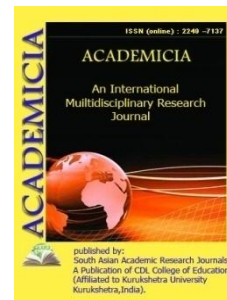
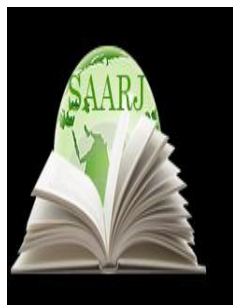
Based on the study of the kinetic laws of the reaction, the mechanism of acetone formation in the presence of a given catalyst based on the kinetic equation of the reaction of obtaining acetone by catalytic hydration of acetylene and the results of experimental and qualitative and quantitative compositions of reaction products.

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## THE GENDER DIMENSION IN THE WORK OF POLITICAL PARTIES (IN CASE OF LIBERAL DEMOCRATIC PARTY OF UZBEKISTAN)

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### ABSTRACT

*One of the important directions in the activities of political parties is the active assistance in empowering women by improving their position and eliminating all obstacles to their active involvement in all spheres of public and private life by ensuring full and equal participation in decision-making on economic, social, cultural and political issues. In this paper, the specified issue is considered on the example of the activities of the largest political party in Uzbekistan - the Movement of Entrepreneurs and Business People - the Liberal Democratic Party of Uzbekistan.*

**KEYWORDS:** *Uzbekistan, Political Processes, Political Reforms, Modernization, Political Party, Gender Issues.*

### INTRODUCTION

One of the important directions in the activities of political parties is the active assistance in empowering women by improving their position and eliminating all obstacles to their active involvement in all spheres of public and private life by ensuring full and equal participation in decision-making on economic, social, cultural and political issues. The party was established in 2003 as a national political organization that expresses and defends the interests of the middle class, representatives of small business, entrepreneurs and farmers - the class of owners, business people. It is necessary to highlight, that the creation and activity of the party is inextricably linked with the activity of Sh.M. Mirziyoev, first as the governor of the Samarkand region and an activist in the creation of UzLiDeP, then as Prime Minister and President of the Republic of Uzbekistan.

## RESULTS AND DISCUSSION

In February 2017, the Strategy of actions on five priority areas for the development of the Republic of Uzbekistan in 2017 - 2021 was approved, that was developed on the basis of the election program of Sh.M. Mirziyoyev. Based on the Strategy of actions, the Party sets a goal of ensuring the sequential entry of Uzbekistan among the 50 developed, competitive democratic states of the world with a steadily developing economy, "knowledge economy", "innovation and digital economy", the dynamic promotion of the country along the path of innovative development, the formation of the "information society".

The Party realizes its program tasks, based on the idea of building a "New, powerful, competitive and prosperous Uzbekistan" and guided by the principles "Through active and dynamic renewal - to the progress and prosperity of society", "If the people are rich, then the state will be rich and powerful" and "People should not experience the results of reforms in the future, but today."

When it comes to the areas of gender-related tasks can be identified such priorities of UzLiDeP's activities in the social spheres as enhancing the role of women in public and political life of the country, their wide involvement in entrepreneurial activities, participation in creating the necessary conditions for self-realization of citizens, first of all, women, as well as the formation of a healthy competitive environment in the field of providing qualified medical care to the population, with the involvement of private capital. Thus, the "Women's wing" of the Party operates in its structure.

This "Women's wing" is one of the important divisions of UzLiDeP in the implementation of the Party's statutory tasks and the Party's Election Program. Its active participation in the implementation of the provisions of the annually announced State Programs, primarily in the framework of increasing the political activity of women, strengthening their role and status in society. In total, more than 319 thousand women and girls, who are members of UzLiDeP, are United in 12 thousand primary party organizations. In particular, in only in 2020, over 4000 women and girls joined UzLiDeP.

Only in 2019, the "Women's Wing" of UzLiDeP held about 10,759 events, that involved participation of 623,308 women and girls. In total, in the period from 2010 to 2020 was carried out over 64 738 thousand events by involving 3 555 489 people.

The UzLiDeP fraction in the Legislative Chamber of the Oliy Majlis consists of 53 deputies, of which 14 are women. In local (regional, district) Councils of People's Deputies, deputies from UzLiDeP employ more than 2276 people, that is about 34.5% of the total number of deputy seats. In total, 28.9% of UzLiDeP's deputies are women.

In order to broadly involve women in entrepreneurial activity, to create the necessary conditions for increasing their intellectual potential and self-realization, Party is constantly implementing such projects as "From family entrepreneurship to a strong family", "A prosperous family", "Woman entrepreneur", and "Woman farmer".

In the framework of projects that are targeted at women are organized master classes, seminars, trainings, meetings with representatives of business, financial and banking structures, etc. The "Women's Wing" of UzLiDeP annually holds more than 2 thousand such round-table discussions, meetings and training seminars, which involve more than 160 thousand women and

girls. For instance, in 2019, through assistance in obtaining preferential bank loans, more than 1,700 thousand jobs for women were created.

In order to increase the political, legal culture and legal awareness of girls, the formation of their active citizenship, a conscious attitude to political processes, lasting ideological immunity against various external and internal threats in the spiritual and moral sphere, ensuring the information security of children, in 2019 the party held over 1973 thousand events with the participation of more than 193173 thousand youth representatives.

Particular attention is also paid to the formation and strengthening of a reading culture in society. There were established "UzLiDeP libraries" in more than 60 settlements. "Clubs of young liberals" were established in each region of the country, which today involve more than 386 thousand young men and women.

UzLiDeP believes that entrepreneurship is the key to prosperity, sustainable development and the strength of every family and society. In this regard, the Party is carrying out systematic work in attracting women and girls to family entrepreneurship, small business and private entrepreneurship, farming, as well as by promoting their employment - strengthening families, supporting and implementing initiatives of women and girls.

UzLiDeP pays great attention to the implementation of measures to help women to develop capacity and skills. With this aim, every year the "Women's Wing" of the Party throughout the Republic of Uzbekistan hosts a review-competition of women entrepreneurs "A business woman".

In addition, the Women's wing carries out targeted Party projects in places, especially in the furthest regions, aimed at teaching women and girls how to earn income from the household plot, developing family entrepreneurship and craftsmanship, and ensuring the implementation of the tasks outlined in the programs "well-maintained village" and "well-maintained neighborhood".

Moreover, all events are held with the participation of activists of the "Women's Wing", deputies, experienced entrepreneurs in conjunction with the Public Fund "Makhalla" and the Council of farmers, agricultural farms and owners of private lands of Uzbekistan.

UzLiDeP considers propaganda of the industriousness of women and girls, increasing their role and status in public affairs as the most important tasks. Thus, the Party supports women entrepreneurs and farmers who are actively involved in the development of the country and the welfare of the people, stimulating the accelerated development of family entrepreneurship among women in the regions, promoting best practices in the field of women's entrepreneurship, creating the necessary conditions for improving their professional skills and knowledge about entrepreneurship. Thus, as part of improving business opportunities for women and girls, aimed at teaching them the legal basics of business and entrepreneurship, more than 200 events are held annually, with the participation of more than 9,000 participants.

The "Women's Wing" of the party also implements the party project "From Family Entrepreneurship to a Strong Family". As a result of this project, which has been implemented in order to increase women's self-confidence, expand the ranks of entrepreneurial women, achieve their rightful place in the socio-political life of the country, in the field of entrepreneurship, there has been achieved an increase in the number of women entrepreneurs who received loans, as well as an increase in the number of jobs created by them.

Every year, on a republican scale, this project involves about 11 thousand women. Due to the implementation of this project, over the past five years there were created 3.2 thousand new work places. In particular, as part of the implementation of women's entrepreneurial initiatives, new consumer service centers, beauty salons, health centers, etc. are being opened in the local areas, which facilitates women's household chores and creates all sorts of amenities for them. Every year, the active participants of the project are granted preferential loans with the assistance of the Party. For example, if in 2013 it was an amount of 6 billion soums, today it has reached over than 15 billion soums.

Another significant project is "Healthy family - strong family", which annually hosts about 450 events in the regions. During 2013 – 2019 4,095 thousand events were held in the regions, with the participation of over 180 thousand women. In organized round-table discussions, were raised important issues as women's health, family strength, the negative consequences of early marriage of girls, and consanguine marriages. Moreover, in a framework of this project, girls are advised to follow healthy and athletic lifestyle.

Following the results of the round table discussions, women and girls are offered to take, a free medical examination. Over five years, more than 210 thousand women, primary in rural areas, took a free medical examination. The "Women's Wing" pays special attention to the issues of forming liberal-democratic ideas and spiritual outlook among women, and widely propagating the essence and significance of socio-economic reforms among them. Every year, in such activities of the "Women's wing", more than 700 conversations, meetings, practical round tables, seminars are held in places, that involved about 300 thousand women.

These meetings cover issues like large-scale work to increase the socio-political and social activity of women in Uzbekistan, the role and place of UzLiDeP in these processes, creating conditions for their self-realization in various spheres and sectors, ensuring equal respect for the rights and legitimate interests of women, comprehensive support for motherhood and childhood, as well as strengthening the institution of the family.

The "Women's Wing", as well as its activists, actively participate in the discussion of draft laws submitted for consideration by the Legislative Chamber of the OliyMajlis. Various seminars and round tables are held on a systematic basis, where, under the supervision of the "Women's Wing", draft laws are considered both from the Party's point of view and the protection of women's interests. In particular, 86 of such events were held in 2019, with the participation of about 3.5 thousand people.

Furthermore, special attention is paid to the development of private medicine by the activists of the "Women's Wing". According to UzLiDeP, there are a number of problems in this area that prevent effective use of additional financial resources in the cooperation of public and private medical institutions. These include poor integration of medical practice with the educational system and science, weak introduction of modern systems of training and retraining of personnel, weak social and material protection of medical workers, insufficient equipment of the health care system with modern ICTs and other problems.

The activities of the "Women's Wing" UzLiDeP widely use various modern innovative forms of organizing systemic dialogue with the population and ensuring close communication with the electorate of the party. In particular, special groups (consisting from 15 to 20 people) from the number of deputies and activists of the party, representatives of the Chamber of commerce and

industry were formed in all district and city Councils of the party to study the socio-economic situation on the ground. The aim is to contribute to the solution of specific problems of the population at the local level and the implementation of the State programs "Prosperous village", "Prosperous neighborhood", "Youth is our future " and "Every family is an entrepreneur". Particular attention is paid to studying the problems of women entrepreneurs, providing practical assistance in solving problems and eliminating the obstacles they face, involving the population in entrepreneurial activity, developing family businesses and homestead farming, and providing employment.

Only in 2019, these party groups visited over 19 thousand families. 9,000 families received practical assistance (employment, improving living conditions, public utilities conditions, etc.), as well as support for the further development of family business and homestead farming.

The Party is actively working in the field of further diversification and development of agriculture on the basis of full and comprehensive support for the development of entrepreneurship in rural areas, farms and agricultural-farms. In particular, this applies to such projects as "Entrepreneurship and farming - a guarantee of a prosperous present and a bright future", "UzLiDeP - a supporter of rational use of resources for the benefit of the development of farming and export-oriented agriculture", "Farmer is a strong support of the state", "Homestead farming is an additional source of income", etc.

The purposes of above-mentioned activities are as follows:

- supporting the development of farming and agriculture;
- promoting the involvement of innovative technologies to the agricultural sector;
- increasing the knowledge and business skills of the rural population;
- providing practical assistance in the production of export-oriented products; and
- involving women in the development of farms and agriculture.

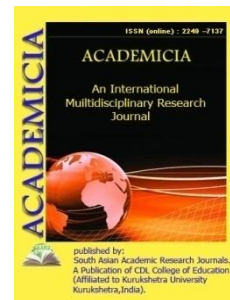
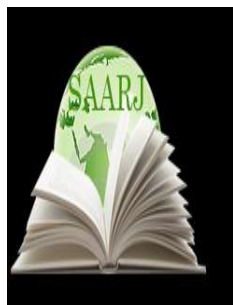
## CONCLUSION

Overall, one of the main mechanisms of the UzLiDeP's "Women's Wing" activities are the implementation in practice of various party projects that are aimed at providing comprehensive support to women who intend to engage in entrepreneurship, as well as creating new jobs by the broadly engaging young women in entrepreneurship. Furthermore, identifying active and proactive women are providing practical assistance for establishing their own businesses are crucial part of "Women's Wing" department. UzLiDeP will continue paying greater attention to improving the effectiveness of its work for protection of the legal rights of women in Uzbekistan.

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## STUDY OF THE REACTION OF CATALYTIC AROMATIZATION OF METHANE

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### ABSTRACT

*In this work, the catalytic characteristics of catalysts, the influence of various factors on the conversion of methane, and the selectivity and yield of the products of the methane dehydroaromatization reaction were studied. Methane dehydroaromatization catalyst 5% Mo/Bentonite was prepared by the method of electric explosion of a molybdenum wire in argon. In argon, nanosized Mo powder was obtained due to the conductivity of a conductor and mixed with bentonite.*

**KEYWORDS:** *Methane, Dehydroaromatization, Catalyst, Zeolite, Bentonite.*

### INTRODUCTION

Currently, the topical issue is the production of motor fuels that meet European standards for environmental parameters and Euro-4 and Euro-5 standards as a result of catalytic dehydration of methane without oxidation.

Rational use of natural and associated petroleum gases, the main component of which is methane, is currently considered as an alternative source of obtaining valuable petrochemical and organic synthesis products, as well as solving environmental problems [1-3]. The main forecasts for the growth of the share of natural gas in the chemical industry are based on the outstripping growth in oil prices as compared to natural gas. Today methane is mainly used as a fuel. The chemical industry consumes only 2.5-5.0% of the produced gas. The wider use of methane is hindered by its high chemical and thermal stability [4-7].

The processes of chemical processing of natural and associated petroleum gases can reduce the amount of flared hydrocarbon gases in flare units and, accordingly, reduce the amount of harmful emissions to the surrounding atmosphere.

The most active in this reaction are high-silica (HS) zeolites containing Zn, Zr, Mo [8-18]. When aromatizing the propane-butane fraction on HS-zeolite promoted with metals, it is not necessary to clean the raw material from moisture and sulfur-containing compounds, and also to use circulating hydrogen. The main disadvantages of the catalytic action of these systems include the formation of significant amounts of methane and high molecular weight aromatic hydrocarbons (naphthalene and its derivatives). As a result, the catalyst stability time is reduced.

## EXPERIMENTAL PART

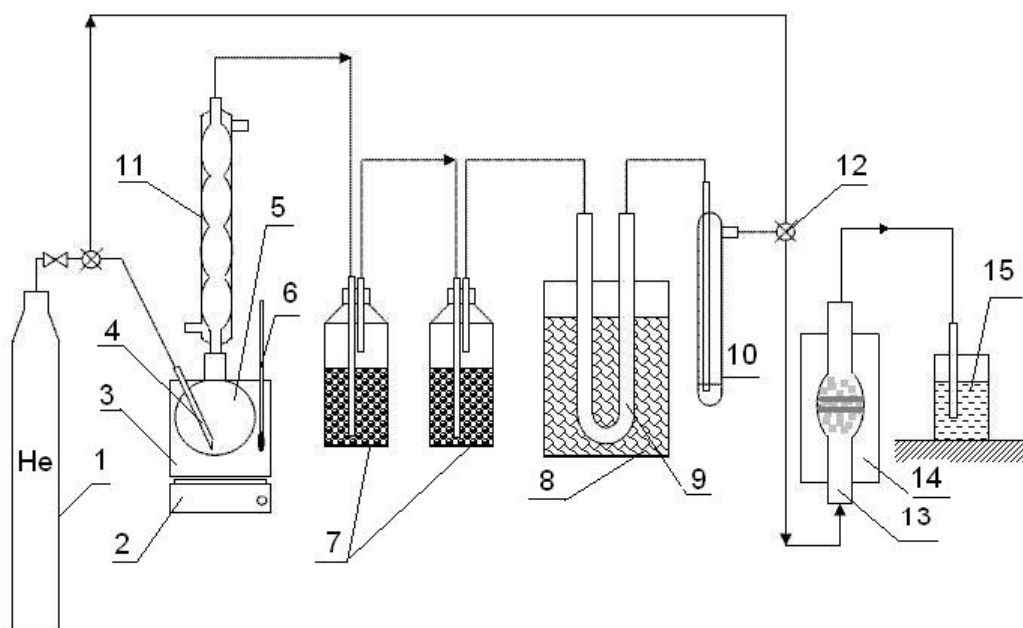
Preparation of bentonite catalysts: Zn, Zr and Mo nanoparticles were obtained by mechanical stirring. In argon, nanosized Mo powder was obtained due to the conductivity of a conductor and mixed with bentonite. For this purpose, Mo nanowire powder obtained by electric explosion of a molybdenum wire in argon was added to 4 grams of degraded bentonite. The resulting mixture was stirred for 30 minutes in a vibrating mill and washed for 4 hours at 500 ° C. Then the catalyst was pressed and granulated and separated into fractions of 0.5–1 mm.

Also, the Mo / bentonite catalyst was prepared by absorbing an aqueous solution of ammonium heptamolybdate  $[(\text{NH}_4)_6\text{Mo}_7\text{O}_{24}]$  into bentonite. After impregnation inside, it was dried for 10–12 h at room temperature. Then it was dried at 100 ° C for 6 h and calcined for 5–7 h at 650–750 ° C.

Catalysts containing 6.0% Mo / bentonite, 1.0% Zr + 6.0% Mo / bentonite, 1.0% Zn-6.0% Mo / bentonite, 1.0% Zn - 1.0% Zr - 6, without Mo / bentonite, prepared by mechanical mixing of nanosized particles with H-form bentonites. The concentration of the catalyst in molybdenum nanopairs was changed to 5.0-6.0% (in wt.%), While the concentration of Zr and Zn was changed to 0.25-1.5%. The resulting mixture was burned in a burner at 550 ° C for 4 hours.

Methane with a purity of 99.9% was used as the main raw material. Methane conversion (99.9% purity) was carried out in a flow reactor with a non-oxide catalyst at 600-800 ° C and atmospheric pressure at a rate of 100-1000 h<sup>-1</sup>, CH<sub>4</sub>: Ar = 1: 1. The size of the catalyst in the quartz reactor is 1.0 cm and the particle size is 0.5-1.0 mm. The reactor is made of quartz, the size of the catalyst bed is 1 ml, and the diameter of the reactor is 12 mm. Before the catalytic conversion of methane, the catalyst was heated to 750 ° C in a flow of helium and held for 20 min at the same temperature. The acidic properties of catalysts were determined by thermoprogrammed desorption: this makes it possible to determine the strength, concentration, and nature of active sites.

The acidic properties of the catalyst were studied by thermoprogrammed desorption of ammonia. The device is shown in Figure 1.



**Figure 1. Device for determination of acid-catalytic acidity by the method of temperature-programmed desorption of ammonia**

1- helium cylinder; 2 - electric stove; 3 - water bath; 4 - helium tube; 5 - round tube with liquid ammonia; 6 - thermometer; 7 - dryer with potassium hydroxide; 8 - refrigerator for freezing with salt; 9 - glass flute; 10 - rheometer; 11 - reflux condenser; 12 - triple tap; 13 - reactor; 14 - oven; 15 - glass.

The formation of coke and its nature were studied by thermal analysis on a derivatograph in the range of 50-700 ° C. The catalytic activity of bentonite depends on the strength of the acid sites resulting from successive calcinations.

### III.RESULTS AND DISCUSSION

The results of the analysis of the properties of the acid are shown in Table 1.

**TABLE 1. ACIDIC PROPERTIES OF CATALYSTS**

Catalyst	$T_{\max}, ^\circ\text{C}$		Concentration of acid sites ( $\mu\text{mol} / \text{g}$ )		
	$T_1$	$T_2$	$C_1$	$C_2$	$\Sigma C$
6,0% Mo/bentonite	188	390	330	198	528
1,0%Zr-6,0% Mo/ bentonite	195	398	377	240	617
1,0%Zn-6,0%Mo/ bentonite	205	410	355	210	565
1,0%Zn-1,0%Zr-6,0%Mo/ bentonite	212	400	300	120	420

$C_1$ -weak acid site,  $C_2$ -strong acid site,  $C$ -total acidity

As can be seen from the table, all studied objects have two acid centers. Adding 1% of the mass Zr to 6.0% Mo / bentonite catalyst resulted in an increase in the concentration of weak and strong acidity. For the 1.0% Zr-6.0% Mo / bentonite sample, the weak acid sites were 377  $\mu\text{mol} / \text{g}$  and the strong acid site concentrations were 240  $\mu\text{mol} / \text{g}$ . The inclusion of Zn in the 6.0% Mo / bentonite system resulted in a decrease in the acid site. The center of weak acidity was 355  $\mu\text{mol}$

/ g and the center of strong acidity was 210  $\mu\text{mol}$  / g. With the introduction of 1.0% Zr and 1.0% Zn into the acidity system of 6.0% Mo / bentonite, the total acidity center was 420  $\mu\text{mol}$  / g, the strong acidity center was 120  $\mu\text{mol}$  / g, and the weak acidity center was 300  $\mu\text{mol}$  / g. ...

To determine the degree of crystallinity of bentonites, peaks in the region  $2\theta = 23-35^\circ$  were measured, and the following formula was used:

$$k = \frac{\sum_i I_{i1}}{\sum_i I_{i2}} \cdot 100\%$$

where:  $k$  - degree of crystallinity, %;  $I_{i2}$  - the intensity of the sample, A / s;

$I_{i1}$  - intensity of the peak of the pyrrolone sample (pure bentonite was used as a reference), counts / s.

#### IV.CONCLUSION

An analysis of the composition of the methane conversion products on the catalysts under study showed that they mainly consist of ethane, ethylene, benzene, and naphthalene.

Adding 1% of the mass Zr and 1% of the mass Zn alone to the 6.0% Mo / bentonite catalyst resulted in an increase in the concentration of weak and strong acidity. This indicates an increase in active centers, which are responsible for the dehydroaromatization reaction.

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