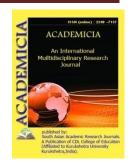


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# DEVELOPMENT OF PRACTICAL ACTIVITY SKILLS OF STUDENTS IN MATHEMATICS IN E-LEARNING ENVIRONMENT

## Mamadiyorov Jamol Bahodirovich\*

\*Basic Doctoral Student, Research Institute of Pedagogical Sciences, UZBEKISTAN

## ABSTRACT

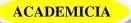
This article shows the ways of developing and forming practical activity skills of schoolchildren in the e-learning environment. In the development of practical activity skills of students in the field of mathematics, the organization of training taking into account their individual characteristics, requires the design of electronic educational resources as a basis. In this regard, the use of mathematics in educational and cognitive activities allows the teacher to create an individual educational trainee for the students, and the students can choose an individual educational direction for learning and evaluating their results in the conditions of developing practical skills in science with the use of different methods.

#### KEYWORDS: ICT, practical activity skills, multimedia, visual education.

## INTRODUCTION

Due to the increase in the flow of information and the application of ICT in all spheres of human activity, the need for the development of practical activities skills of students in this subject arises by improving the requirements of general secondary schools for the teaching of mathematics.

In the development of practical activity skills of students in the field of mathematics, the organization of training taking into account their individual characteristics, requires the design of electronic educational resources as a basis. In this regard, the use of mathematics in educational and cognitive activities allows the teacher to create an individual educational trainee for the students, and the students can choose an individual educational direction for learning and evaluating their results in the conditions of developing practical skills in science with the use of different methods.



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A distinctive feature of the development of practical skills of students in mathematics in the elearning environment is the creation of an individual training course on its basis and the selection of the direction of education by each student taking into account individual cognitive methods of coding of information.

The role of e-learning resources in the teaching of mathematics is of particular interest, since their use can only increase the effectiveness of teaching due to the visual presentation of information that positively affects the formation and development of flexible mathematical thinking, thereby creating the idea of kenyingi activities related to the design, construction and processing of visual data. The importance of practice depends on the possibility of increasing the effectiveness of mathematics lessons, as well as the fact that the use of electronic educational resources in teaching is an important aspect of modern education, increases the interest of students in the study of mathematics, which contributes to the development of his practical activity skills.

U.N.Taylokov noted that the introduction of the e-learning environment is primarily related to the social potential of society, including the informatization of the educational sphere, and that the issues of the content and quality of education should be considered as a priority direction in society. In his opinion, the e-learning environment serves as an important tool in the development of practical skills of Secondary School students in the field of science.

I.V.According to kuznesova, the desire to use computer technology in mathematics lessons is caused by the following for social, pedagogical and technological reasons::

- Increases the requirements for the introduction of innovative technologies into the educational system;

- Increases the need for new tools izlash to improve the effectiveness of pedagogical education;

- The computer enables the transfer of educational information to a significant extent kengaytiradi, to increase educational motivation Kuchay and to actively engage students in the learning process.

Computerization of education is concerned with the prospects of increasing the effectiveness of the educational process, reducing the gap between the demands of the society on the younger generation and the practical school preparation.

If it is acceptable for students to harmonize the teaching methods used in school in the process of teaching mathematics with the use of information technology, then the effectiveness of the learning process will increase, because in this case the principles of visualizing the differentiation of Education will be most fully implemented, the motivation of the students will be underestimated.

Today, the main goal of the teacher is to train specialists who can enter the educational, information, economic space and know how to work. The task of the teacher is to provide the student with the correct use of resources, remember and apply the information, understand the purpose of the study, identify the link between real life and seeing the world from a different perspective, contribute to the awakening of the creative principleillarni in the student.



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It has a variety of capabilities for use in modern information technology and their educational process. On the other hand, there are many problems in this area.

First, Information Technology is developing so rapidly that pedagogical research and methodological developments in their application in the educational process are also quickly outdated.

Secondly, the possibilities of using technical means in the professional activity of the teacher are very diverse and multifaceted, new ways of using them in the educational process will arise, and new tasks, problems associated with the competent use of computer technologies in the educational process will arise before the teachers.

Kengaytiradi the possibilities of using a variety of methods, taking into account the age, level of development and preparation of students in the use of modern information technology and technical equipment. Modern instructional technology has become an active participant in the joint work of both teachers and students .tiradi Because modern teaching tools allow to demonstrate independence and creative activity in the development and improvement of new didactic materials projects.

The methodology for the use of information technology involves the combined use of various additional teaching aids in mathematical lessons, not only with the use of traditional parts of instructional materials, but also with the ability to effectively solve didactic tasks. In our opinion, the use of Information Technology for teaching, which ensures the unity of the content of educational materials presented with their help, seems to be pedagogically purposeful. At the same time, the content of the lesson is better opened with the help of multimedia through visualized learning data.

In the process of teaching mathematics in the 11th grades, the methodology for the application of computer technology can not be reduced only, depending on the technical side of its implementation, although their application is sufficiently provided with computer equipment, it is also possible that the failure of the software will affect its success.

In the lessons of mathematics, the organizational side of the application of computer technology seems to be important. To determine the place and time of use of instructional materials as a component, to introduce ICT into traditional teaching manual into the learning process either sequentially or parallel. The use of computer capabilities of traditional textbooks and the content of instructional material can vary depending on the time they are used in the learning process. A similar situation is possible in the lessons of repetition, systematization and generalization of knowledge.

The use of ICT in mathematical lessons allows the teacher to::

- make the learning process more interesting and lively due to the richness of multimedia features;

- Effective solution to the problem of Visual Education;

- To expand the visualization of instructional materials so that it is understandable to the students.

Computer technology can be used at any stage of the lesson:



- Presentation of the subject of the lesson;

- At the beginning of the lesson, using the questions on the topic under study, to create a problematic situation;

- in addition to the teacher's explanation (presentations, formulas, diagrams, drawings, video clips, etc.);

- control of knowledge.

The main educational importance of information technology is that it allows you to create a more active interactive learning environment, which has opportunities at the disposal of both the teacher and the student.[1-2]

The advantages of computer technology over traditional technology are multifaceted. Along with opportunities such as more visual, visual presentation of the material, cognitive development, they include various organizational forms in the activities of students, teaching methods in the activities of the teacher. Classes using computer technology not only revitalize the learning process, but also increase the learning motivation.

Innovative technologies are considered important in the professional activity of the teacher so that he can always monitor the shortcomings of the student and take corrective measures. The pace of development of the present time requires teachers to build creativity in research areas in a new way. Therefore, XXI century is considered to be the age of innovation and educational process related to computer and Information Technology and form the thinking ability of the student. In the information society, the effectiveness of pedagogical technologies that shape the thinking abilities of students and enhance computer literacy is high, as a result of which the way to the formation of professional capacity is opened.

The methodology of teaching mathematics is closely related to pedagogy, in particular didactics. The main attitude that characterizes teaching in dactactics is" teaching – learning", in methodology – "teaching - learning materials – teaching". Pedagogy determines the methods of teaching, educational goals, methods of scientific research. Taking these methods and goals from pedagogy as a basis, the methodology introduces its specific mathematical composition both in the educational process and in the scientific research work.

The methodology of teaching mathematics is aimed at the characteristics of students of a certain age group, taking advantage of the laws of individual characteristics of students of a certain age group. The effect of psychology in the methodology of teaching mathematics is explained by the attitude towards the introduction of personality-oriented education, which is characterized by the education of the student to the extent that he / she is capable of self-development, self-knowledge, research and finding.

The teaching of mathematics to students is aimed at the following:

-Mastering the system of mathematical knowledge, the skills necessary for further study of mathematics and related subjects in order to solve practical problems;

- Development of spatial imagination, logical thinking of oral and written mathematical speech;

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- formation of computational skills, algebraic transformations, solving equations and inequalities, as well as formation of instrumental and graphic skills.

Mathematics differs not only in size, system and depth of presentation, but also in the practical direction of the questions being studied.

# **BIBLIOGRAPHIC LIST**

- 1. Busstra M. C., Paul J. M. Hulshof, Jan Houwen, Lucy Elburg, Peter C. H. Hollman Nutrient analysis explained for non-chemists by using interactive e-learning material Journal of Food Composition and Analysis Volume 25, Issue 1, February 2012, Pages 88-95.
- Кузнецова И.В. Развитие методической компетентности будущего учителя математики в процессе обучения математическим структурам в сетевых сообществах // Диссертация на соискание ученой степени доктора педагогических наук. – Архангельск, 2015. – 483 с.