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METHODS AND TOOLS FOR MODELING THE QUALITY OF EDUCATION (SOCIOLOGICAL ANALYSIS)

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ABSTRACT

The article presents a sociological analysis of methods and tools for modeling the quality of Education. In this article, the problems of improving the quality of education are considered, the need to conduct a practical study of the social dimension of the management of higher educational institutions and through it to analyze the theoretical aspects of improving the quality of Education, determine the laws of development and create new socio-mathematical models of the management of educational processes is The article also analyzed the fact that the quality of education at the moment is one of the main components of human quality and is the main mechanism for the formation of public consciousness, the development of Science and culture.

KEYWORDS: *Quality of Education, Sociological Model, Modeling, Socio-Cultural Approach, Monitoring, Competition, Effectiveness Of The Educational Process*

INTRODUCTION

Today, efforts to improve the quality of education throughout the world are intensifying in toboro. Negaki said that as long as the development and prospect of society depend on personnell in many ways, the tendency to strive to realize that education should be paid attention to the fact that education plays a key role. When considering taking this aspect, it is important to achieve quality and effectiveness in education. A comprehensive analysis of the stages of development of the educational system of Uzbekistan, a completely new approach and principle for the

development of the system at the level of more perfect and international standardsillarni,more precisely, dictates the development and realization of a new strategy for the development of the educational system. Improving the quality of education is an area Without Borders. Therefore, now correctly assess the dynamics of the growth of the quality of education, clearly define its criteria and predict the indicators of the quality of future education, planning is an extremely important and urgent issue.The approach to the quality of education and its management from a scientific point of view began abroad in the 50-ies of the last century,most of the studies were analyzed on the example of the system of higher education and educational institutions that carry it out.In 1995, UNESCO developed a program called "reform and development of Higher Education" in order to fulfill the decision of its general conference,in which the world-wide trend and objectives of the development of higher education were described during the centuries-old exchange.In the introductory part of this document "fast among the main tasks of higher education in the changing world " the following main directions are allocated.

-modernity at the request of time;- globality; - quality, which is determined in the style of" multifaceted concept, which covers all the main functions and activities of Higher Education".

18 of the 151 items available in the program are directly devoted to the quality of Education.They include a broad interpretation of the concept of quality that characterizes "the quality of Higher Education in the manner of the context,functions of this system or a multifaceted concept that depends on the conditions and norms in the System"[1].

(LITERATURE REVIEW).

The quality of higher education in Russia has been studied since the end of the 90s. Problems of higher education in Russia S.Abramova, G.A.Bordovsky, E.E.Buxteeva, L.I.Varenova, A.A.Vetrova, V.I.Vovna, E.No, it's not.Girba, L.A.Golub, G. L. Gromiko, S.P.Dokina, S.S.Doneskaya, S.P. Erkovich, N.F.Efremova, D.F.Zakirova, Yu.A.Zakharov, I.A.Zimnaya, B.I.Iskakov, V.G.Kazanovich, S.M.Kalabin, N.P.Kalashnikov, Z.I.Kapelyuk, A.M.Karpenka, V.G.Kinelev, A.A.Kirinyuk, N.V.Kovaleva, B.K.Kolomies, S.V.Korshunov, V.J.Guglin, A.A.Kushel, B.X.Land, A.G.Levinson, B.G.Litvek, A.N.Mayorov, T.V.Makarova, V.V.Melnik, V.Meshalkin, V.A.Moskinov, R.V.Muzhichenko, Yu.G.Tatur, D.Tatyanchenko, I.I.Tropine, G.S.Farino, I.B.Fedorov, E.V.Filyuk, A.A.Frenkel, E.Hrikov, M.B. Chelishkova, A.I.Chuchalin, V.D.Shadrikov, E.N.Shuvalov, E.M.It is reflected in the works of Yurtanova and others.These researchers identified different approaches in determining the quality of higher education and proposed different criteria for its evaluation.Modernization of education is planned to ensure its fundamental,professional and practical directions.

Recently, in pedagogical research, more and more attention is paid to mathematical modeling in the organization of quality control of the educational process. The attempt to formalize such a complex phenomenon is faced with many difficulties, which is partly explained by the strong influence of the sub-human factor on the activities of the educational institution. V.A.Sadovnich believes that the existence of the "human factor" in humanitarian Sciences in order to participate in the understanding of social processes as a separate person, as well as as as a whole social society, within the framework of this sphere, several fundamental problems arise in the creation of a Real mathematical model. First, the absence of a certain fundamental law that can clearly indicate its indicators in the case of the set universal according to the source under study; secondly, the shallow "measure" of social indicators, even if it is clear what measure it is

necessary to take, requires non-shallow accuracy, which approaches reality; in the third, different massiveness, that is, the presence of various social objects in Ethnos and large Ethnos, ranging from small sociological groups; in the fourth, the constant complexity of social objects, the knowledge that determines their reflux

(RESEARCH METHODOLOGY).

A.A Bratko modeling is interpreted as a method of direct cognition using medical and artificial systems. He has a certain attitude towards the object under study and is able to give new concepts about it. Modeling can be a specific object, as well as many objects, studied and unexplored phenomena [3]. Modeling-in the knowledge of the existing systems of material and spiritual Real, created by the redevelopment of the principles of the organization and functionalization of these systems, a certain constructed analogue (model) is understood [4]. The simplest mathematical model used to manage the quality of the educational process is the model of scores. Its essence is as follows: Let's fix any object. X_1, X_2, \dots, X_n is a set of quantitative indicators that characterize the state of a given t-Time of the selected object and the results of its activity for the previous period of control. In this case, the total rating of the selected object can be calculated using the following formula:

$$R = _1X_1 + _2X_2 + \dots + _nX_n;$$

The advantages of the scoring model are its simplicity and low cost, but it also has a number of drawbacks:

1. The need to choose weight coefficients in an expert way.
2. Not taking into account the links between quantitative indicators.

Compared to the previous one, the standard is more, but the classification is a rating calculation model [5]. Its essence depends on the following. The state of the activity of a given object and the entire set of initial indicators of its activity are divided into two indicators:

1. Potential indicators that characterize different situations and potential indicators.
2. Activity or performance indicators that characterize the results of previous activities of this object.

The indicators of the first set are divided into a certain number of classes, each of which has its own characteristics, and the indicators of the second set are divided into certain parts. Then, the indicators of potential opportunities and types of activity are normalized in relation to some values, in which the rates of each of the groups have an economic meaning. Each potential capacity and type of activity expert style determines the weight coefficients and calculates the rating of potentials for different types of potential opportunities and activity (performance) ratings for different types of activities. Directing model senior management systems management professor V.I. It was proposed by Chernesky for the synthesis of self-adjusting (adaptive) automatic control systems of complex multi-cycle technical objects [6]. The essence of the guiding models lies in the assumption that the parameter values can choose some ideal (hypothetical, reference) management object, which in this or that sense is acceptable (this assumption is not always carried out). Then the values of the controlled parameters of all other control objects associated with it are evaluated with deviations (or proportions) from the values

of the parameters of the reference object of the same type of reference object. Based on the results of comparing the actual and reference values of the monitored ones, parameters, an additional control cycle (adaptation and self-adjustment cycle) are synthesized, the main purpose of which is to consistently change some technological parameters that determine the dynamics of the movement of the object in the desired direction.

The requirements for the quality of training of specialists are aimed at reviewing the management system of educational institutions, encouraging the provision of quality education services and ,as a result, supporting the implementation of the quality management system of educational services, forming new principles based on strategic planning of Management, Quality Management System. The national systems of quality assessment,in practice in different countries, differ from each other not only in terms of goals, objectives, evaluation criteria and measures, but also in many parameters, such as the level of involvement of the state, Public, special bodies and institutions in this process. Modern innovative production based on information technology requires an appropriate workforce with high potential and professional skills. The quality and competitiveness of higher education is important for the sustainable development of the Republic today.

(ANALYSIS AND RESULTS)

.The content, purpose of education is closely connected with the deepening of democratic reforms in our country. Training of personnel is a socio-economic problem of the first degree, which is primarily inextricably linked with personality, society and economic development. Improvement of social management in solving such an urgent, complex problem is one of the main tasks. This is an expression from the following:

- to continue the radical reform of the higher education system, to improve management in higher educational institutions, to create a socio-economic base that serves to prepare specialists capable of working in modernized conditions and modern technologies;
- to raise the quality of educational and educational process of higher educational institutions to a high level in the global environment, to introduce new methods of modern pedagogical and information technologies into practice in education;
- further improvement of the structures of higher educational institutions, in particular, the development of entrepreneurial activity and through it additional income, spending on social expenses;
- to educate students in the spirit of national pride, universal values, patriotism, love for science and creative work through the humanization of Higher Education;
- to create conditions for students to get professional higher education at the modern level by modernizing higher educational institutions;
- to create a potential personnel corps consisting of highly qualified, flexible specialists who can quickly cope with everyday problems;
- improving the information and material technical base of higher educational institutions with the new generation of educational literature, modern educational, educational equipment, communication and computer equipment;

– to increase respect for pedagogical profession in society, to encourage interest in the work of professors and teachers among Masters, it is necessary for them

solve such problems as the creation of social, economic conditions.

The development of the optimal model of improving the quality of Education, which is used within the framework of automated management systems, created using modern computational techniques, taking into account the need to take urgent measures in advance to improve the quality of education by creating governance principles in higher institutions in the conditions of socially oriented market economy relations is the most urgent

(CONCLUSION/RECOMMENDATIONS)

In turn, the modeling of social processes is manifested as a powerful mathematical predicate of the analysis of the nature and properties of social phenomena. The development and application of models that reflect the nature of social phenomena and processes gives an opportunity to obtain the most truthful and justified results. The use of separate methods of mathematical modeling in the educational process includes the following general algorithm stages. 1. Drawing up a model of the elements of the educational process. 2. Experiment with the Model. 3. To draw conclusions on the characteristics of the model, explaining the interpretation of the results obtained by didactic language. According to the conclusion made, word-building on the feature of the object.

The direction of mathematical models and techniques in pedagogy should be based on humanistic and technological prints, taking into account the nature of the educational system. The scientific research conducted by foreign scientists shows that mathematical methods and modeling are the main conditions for improving the quality of Education. In pedagogical activity, it makes it possible to perform such functions as diagnosis, forecasting, correction, management, control and others. For educational practice requires the use of methods that have a clear basis and effect with a scientific approach in the introduction of mathematical techniques. Currently, the assessment of the quality of higher education needs additional statistical indicators and methods of determining the indicators: the labor market should be evaluated in terms of etiologies and the requirements of employers. The study of the theory and method of mathematical modeling in a complex case allows to remove the traditionally acquired methodological-mathematical knowledge and the following basic contradictions that arise when applying them in professional activity. The application of mathematical modeling in education makes it possible to study the identity of the implementation of such a task in a consistent sequence. Bunda is considered the educational process of a higher educational institution as an object of research, the subject of which is the educational process, which is considered as an object of information, as a result of which they are manifested by their readiness to use it in professional, scientific and creative activities only such specialists will be able to find a way.

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