

THE EXISTANCE OF SOCIAL DEMAND FOR THE USE OF INFORMATION-COMMUNICATION TECHNOLOGIES IN FORMING ELEMENTARY SCHOOL PUPILS' MATHEMATIC COMPETENCES

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Abstract. *On the foundations of implementing information technologies into teaching process, the important social-pedagogical demand issue to put into practice human's lifetime quality education, to activate the education of teachers and pupils, to develop them intellectually, to support them to find new ideas in forming special competences regarding basic and support subject and to put into practice motivates the information service modelling system to be improved for increasing education process quality. The existence of social demand for elementary school pupils' mathematic competences requiring information-communication technologies is researched on the basis of our country's public secondary education development strategy and the demand for establishing electron education system which can determine their effectiveness.*

Keywords: *elementary school form, mathematics, information-communication technologies, studying-learning process, mathematic competence, mutual cooperation, talent.*

Introduction. Today, the achievements of world civilization and wide use of information resources, expansion of opportunities for development of mathematical literacy are gaining special relevance and importance. In this, the issues of studying the pedagogical, psychological and methodical features of the use of information technologies in all parts of the continuous education system, including primary education, are leading.

Based on the goals and objectives of the Cabinet of Ministers of the Republic of Uzbekistan Decree No. 187 "On approval of state educational standards of general secondary and secondary special, vocational education" [1], this reinforces the need for a comprehensive investigation of the phenomenon. It is important to form the students' mathematical competences, especially in the period when the student's activity is formed in the elementary grades, when he is entering his development stage, when his creative possibilities and self-expression skills are formed. All this reinforces the need for comprehensive research of this phenomenon. Also, the use of information and communication technologies at every stage of the education system is one of the most urgent issues of today. In our country, 2020 has been called the "Year of Science and Digital Economy Development". Software tools used in the educational environment: Moodle, Ispring Suite, Bandicam, Audisity, Movavi Video, Editor Plus, Media Studio 8, Macromedia Flash are expanding as an effective methodical resource in the process of creating electronic information resources and improving the quality of education. Therefore, "...in the period of increasing technological revolutions taking place in the world, the issue of increasing the quality of education and improving it in the context of information services is gaining special importance" [2].

Literature review. Orientation of the primary education process to the individual, its creative organization, modernization and integration of the primary education content R.Safarova [3], B. Adizov, R.Nurzhanova, G.Hasanova, H.Nazarovalar was researched by, in this process, special attention is paid to the issues of cooperation between the teacher and the student, the realization of the student's creative potential in the educational process.

However, it is known from the analysis of the literature that no special research has been conducted on the issues of improving the technologies of forming the mathematical competences of elementary school students by means of information and communication technologies.

The quality of the educational activities of educational institutions is not related to the content of the planning of the educational process, its implementation, curriculum, programs, but to the acquired knowledge, skills and abilities of the students, independently acquired knowledge. is determined by the quality of educational results. Therefore, the formation of mathematical competences of elementary school students through the means of information and communication technologies should be integrated into the educational system.

Applying modern educational programs and technologies to the educational process in order to form the mathematical competences of primary school students by means of information and communication technologies, to create conditions for all-round intellectual, moral, aesthetic and physical development of children, " issues of organizing teacher-pupil, pupil-pupil, teacher-pupil cooperation are very urgent.

The analysis of psychological and pedagogical literature shows that scientists of a number of CIS countries B.V.Gnedenko, A.N.Kolmogorov, A.I.Markushevich, A.Y. Khinchin, mathematician and methodist D. Poya, methodists N.R. Gaybullayev, V.A. Gusev, N.V.Metelsky, G.I.Saransev, S.I.Shvarsburd and others studied one or another aspect of the problem of developing students' mathematical abilities.

Khabina Ella Lvovna's research work on theme "Development of mathematical abilities of students in grades 8-9 with in-depth study of mathematics: Based on the theory of divisibility of integers" shown mathematical abilities of students, its components, issues such as the development of flexibility of thought processes were studied [4]. In A.A.Anelauskene's study, the main types of mathematical abilities of students of grades 9-11 were distinguished, and possible methods of individualizing the study of mathematics were considered [5]. I.I.Dirchenko's dissertation research analyzes the role of mathematical circles in the development of mathematical abilities of 7-8th grade students [6], Ibragimov Nadir Shapulatovich's doctoral dissertation (PhD) on the topic "Development of mathematical abilities of students in the educational process" In order to develop students' interest in studying theoretical numerical materials in their classes, an opinion is expressed about taking into account their potential mathematical abilities, individualizing and differentiating the educational process [7].

According to the analysis of the literature, (M.Kh.Lutfillaev, A.A.Abdukadirov, N.I.Taylakov) educational goals through the use of information and communication technologies in the educational process are the development of students' cognitive activity, the formation of skills for working with additional literature, modern development of skills in the use of ICT, computer, Internet, EAR opportunities; develop the skills of sorting, analyzing, and comparing the most important ideas in the presented educational material; improving the effectiveness of the lesson, focusing on creating motivation for the studied subject through modern technologies[8].

According to Professor M.Kh.Lutfillaev, "... the use of information and communication technologies in the educational process belongs more to the methods than to the methods of education. It is a method in which the object of interest to the researcher is replaced by another similar object. In this case, the first object is the original, and the second is the model. Later, the knowledge obtained by studying the model is transferred to the original (original object) based on analogy. Modeling is used in cases where it is impossible to study the original object, or it requires very large expenses, or it is difficult to study directly due to the instability of the situation. A clear example of this can be the study of the characteristics of new constructions of airplanes on the basis of their miniaturized models. Modeling can be manifested in a physical, mathematical, logical, symbolic form, depending on the choice of model" [9]. So, in primary education, it is possible to use models that replace objects of knowledge, which are objectified in practice or imagined in thought, by means of information and communication technologies. It is possible to distinguish different types of modeling in relation to the selection of information and communication tools for primary education.

Research Methodology. An educational process is organized to help solve all the problems of students during the educational process. Education is carried out in cooperation with the school, parents, neighborhood and student community, based on the principles of democracy and tolerance. In this process, it is achieved that students are not ordinary learners, but equal participants of the educational process, integrated on the basis of cooperation.

It should be noted that the teacher, while organizing the educational process, should not forget that each student is unique and depends on his education, mental experiences and mood in many ways. Therefore, when applying information and communication models to primary education, it is important to create an atmosphere of creativity in the educational process, to organize students' activities based on a certain order. For this, it is necessary to ensure that the educational process acquires an open character and is convenient for the mutual exchange of information.

In the process of primary education, the activities of students, which are carried out interactively on the basis of information and communication tools, are focused on conscious, independent, creative thinking. Because elementary school students are complex, have mental crises, have high energy, are ambitious, hungry for new things, aspire to master the world, tend to be independent and flexible, and the formation of social norms in their behavior is accelerated. They are in the period of development that goes with the horse. Accordingly, the importance of the following is observed:

- in the process of primary education, the breadth of educational information and their assimilation on the basis of information and communication means requires the environment of mutual exchange of opinions between the teacher and the students;
- the need for the use of information and communication tools to become a component of the teacher's pedagogical activity in the process of primary education;
- the preservation of traditional pedagogical approaches in the relations between students and teachers and the need to eliminate them is increasing;
- the importance of teacher-student cooperation in ensuring the effectiveness of the educational process.

Analysis and results. I.A. Podlasiy, having learned that interpersonal relations arise from team activities, he noted that the organization of cooperation between the teacher and students in

the educational process is not only a means of meeting their needs for communication and interaction, but also an important condition for mastering the educational material. emphasizes.

In pedagogy, a number of studies have been carried out on the issue of using approaches related to the formation of various abilities and qualities of primary school students.

In N.G.Dilova's doctoral dissertation on the topic "Improving the mechanisms for the formation of an environment of mutual cooperation in the process of primary education", the activity focused on pedagogical cooperation is independent learning, organization of one's own activities, self-management in addition to forming skills, it also has the effect of guiding and motivating the student, and in the process of cooperation with himself and others, he opens up his own opportunities and develops his own. It is thought that it helps to improve oneself [10].

So, although the above-mentioned goals and tasks are understood in the field of education, they are not sufficiently implemented. As a result, the implementation of information and communication technologies in the formation of mathematical competences of elementary school students is being approached slowly.

Thus, it is inevitable to assess the use of ICT tools as a socio-pedagogical necessity in the formation of mathematical competences of elementary school students, and its research is one of the current issues in the field of pedagogy.

Conclusion/Recommendations. In today's era of globalization, the use of information and communication tools in the formation of mathematical competences of elementary school students is an important socio-pedagogical phenomenon, because it is the improvement of students' knowledge, skills, qualifications, humanization of education, coherence and continuity, developing and socializing. ensuring its goals is considered an urgent task.

Fundamental changes in the quality of education in the process of primary education in our republic, the introduction of advanced methods of teaching using modern pedagogical and information and communication technologies have created a basis for improving the mechanisms of creating an environment of mutual cooperation. However, there is a need for wide use of information resources for elementary school students, expansion of opportunities for the development of interactive education, logframe reflecting pedagogical processes, conceptual project, methodology, technology, improvement of the environment for the development of electronic programs.

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