

PROVIDING CONSISTENCY IN FORMATION MATHEMATICAL IMAGINATIONS IN THE SYSTEMS OF PRESCHOOL AND PRIMARY EDUCATION

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ABSTRACT

The following article deals with presenting the theoretical background of the experience of foreign countries in ensuring continuity and incessancy in formation of mathematical concepts in pre-school and primary education and the specifics of the education system of each country. In this article also scientifically approved the importance of continuity in pre-school and primary education, consistent, complementary, systematic, scientific, continuous, step-by-step, responsiveness to practical challenges, practical and interdisciplinary nature of the educational works can bring to pedagogical results.

Keywords: Pre-school, elementary education, mathematical concepts, continuity, incessancy, learning process, technological approach, project, algorithm, pedagogical mechanism, improvement, education, innovation, competence, globalization, mathematical literacy.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

The goal of our reforms and one of the main factors of the President's policy is to support and nurture talented young people with deep thinking and independent thinking. Therefore, to enrich the content of education based on modern requirements, the educational, methodical, researches and modular education systems of developed European countries (Germany, England, France, Canada), Asian countries (Japan, South Korea) and the United States. The essence of the European Unified Learning Environment (Bologna Process), the essence of the modular-credit system, the level of professional competence of the teaching staff about the ECTS credits, its basic principles and features within a competitive educational system plays an important role. It provides the formation of mathematical representation of students in preschool and primary education, the interaction between teachers working in preschool and primary education and indirectly in the educational process.

Widespread implementation of innovative activities that are essential for the development of Uzbekistan's economic development model in the 21st century, the acquisition of scientific knowledge and new technologies, direct mathematical literacy, the ability to comprehend and apply mathematical skills in everyday life, to develop logical and creative thinking in students, preschool education, which is required for an education system to teach them how to master verbal communication and self-control and a particular attention should be paid to the organization of high-quality educational activities in primary grades.

One of the main objectives of improving the Mathematics Literacy of preschool children, teaching mathematics to primary grade pupils and improving the learning process at school is to ensure incessancy in the formation of mathematical concepts in preschool and primary education. Studying this issue will play an important role in improving the quality of school education, ensuring the effectiveness of the educational process, upbringing a healthy person

and preparing the child for labor activities. Each country has its own educational system. Of course, it is a matter of development of that state and of the interests and maturity of the individual. It is inevitable that cooperation in education will be mutually beneficial and beneficial for both parties.

Changes in the system of continuous education require the continuity of education philosophy, paradigms of teaching theory and new approaches to teaching technologies. It requires a systematic approach to the competence, creativity, independence, the ability to evaluate and apply innovations, as well as the creation of optimal conditions for the effective use of innovative educational technologies.

Our research and observations show that, in the context of the pedagogical environment, providing incessancy in the formation of mathematical concepts in preschool and primary education can create new versions while integrating the education system with science, technology and production, to become a subject of their own life. The concept of innovative education is being widespread that is characterized by the appearance of an expert capable of managing the content of development.

Thus, we can say that the system of preschool and primary education in the Republic can be considered as a fully formed general secondary education system. Although it has a scientifically-based mechanism for organizing pre-school education, it also includes methodological associations, teachers, educators, preschool and primary school teachers, activities of primary school teachers and more. In the course of our research we also found that continuous methodological services aimed at developing professional skills of preschool and public education staff, as well as the certification process aimed to encourage teachers and educators to improve their skills, ability to improve their creativity, best international experience in the organization and quality assurance of the educational process seek clarification of areas of application and service.

Mathematics is interesting because the concepts, algorithms within which preschool and elementary school learning can be enhanced from simple to complex, identify the skills and abilities, create conditions for the development and support of students' talents, and develop students' interests.

B. G Anan'ev has revealed in his research the regularities of improving students' knowledge both methodologically and practically in the context of teaching mathematical laws and practices¹. Also in the learning process of students' knowledge, skills and have argued that interconnected systems define the components in generalized concepts and teaching methods.

It is possible to say that every aspect of students' activity, such as material production, interdisciplinary learning is inextricably linked to the development of human intelligence, thinking, mastering and enhancing knowledge. It also serves to build the skills.

Given the importance of play as a learning process for young children, it is essential that good mathematics pedagogy recognises this fact, honours it and harnesses its power.

¹ Б.Г.Ананьев Психология чувственного познания. – Москва : АПН.РСФСР.1960. - 486 бет.

Define three types of play in which children engage with mathematics: sensorimotor play, symbolic or pretend play, and games with rules. Promotes a range of different types of play, i.e., 'creative', 'games with rules', 'language', 'physical' and 'pretend'.

The various types of play strengthen children's mathematical learning and understanding in different ways. The following examples highlight ways in which mathematical skills and concepts can be developed in early years settings, in both indoor and outdoor environments:

f Physical play refers to physical, exploratory, manipulative and constructive play. It is the most common type of play in very young children involves bodily movements such as clapping, hopping and jumping. Through engaging in physical play experiences, children can learn a variety of mathematical concepts and skills. Physical play experiences include participating in games and activities that develop the vocabulary of position and movement; identifying and comparing shapes and patterns within the environment;

Through engaging in constructive play children develop mathematical skills such as problem-solving, visualisation, spatial awareness and reasoning, tessellation and pattern-making.

Pretend play encompasses make-believe, dramatic, socio-dramatic, role, fantasy and small world play. Pretend play involves children being creative and using their imaginations with objects, actions and in role-playing. Through participating in pretend play, children develop early literacy and numeracy skills. Through playing with real objects they develop mathematical skills and engage with concepts such as number operations related to counting, calculating, problemsolving, number, measure and time. Using objects to symbolise other things, children move from thinking in the concrete to thinking in the abstract.

Creative play involves children exploring actions and materials and communicating their ideas. Through creative play children develop a variety of mathematical skills in meaningful contexts. For instance, children playing with junk and recycled materials can make models, explore the properties and characteristics of 2-D and 3-D shapes, investigate symmetry and tessellation and develop mathem.

According to the point of view of N.F.Talizina, who studied human activity in the form of "motive-interconnected system of actions and methods". She said:"Elementary teacher should teach children literacy, care for and develop the knowledge they need, and provide them with the tools to learn". In our opinion, taking her ideas into concentration, the formation of literacy in children should begin in pre-school education to form general skills.

The experience of foreign countries in ensuring the continuity of mathematical concepts in pre-school and primary education requires the continuity of the pedagogical process to learn and transform them into a way of life. Continuity in the system of preschool and primary education means the consistent, complementary, systematic, scientific, continuous, step-by-step implementation of educational and upbringing work, effective response to vital problems, practical and interrelationship. Incessancy is to ensure the continuity of the content of mathematics in preschool and primary education, in terms of age differentiation and the gradual organization of the educational process in accordance with the established plan for acquiring mathematical knowledge from simple to complex.

The results of observations and the results theoretical literature, the practical situation of ensuring the continuity of mathematical concepts in the system of preschool and primary education indicate that the following practical issues should be considered:

- Development of the issue of the relevance of the problem of continuity in the formation of mathematical concepts in the system of preschool and primary education;
- Improvement of pedagogical mechanisms of adherence to the principles of continuity in the formation of mathematical concepts in the system of preschool and primary education;
- Definition of components and diagnostic indicators of development of principles of continuity in formation of mathematical concepts in preschool and primary education;
- To explain the role and importance of foreign experience in the development of methodology for ensuring continuity in the formation of mathematical concepts in the system of preschool and primary education;
- Development and implementation of methods aimed at developing the problem of continuity in the formation of mathematical concepts in the system of preschool and primary education;
- Development of methodical recommendations for improving the content of subjects taught in the system of continuous education in the formation of mathematical concepts in the system of preschool and primary education; analysis of preschool and primary school textbooks;
- Effective use of advanced pedagogical and information-communication technologies in the formation of mathematical concepts in the system of preschool and primary education in the educational process;
- Increasing the role of family, kindergarten and school partnerships in the development of mathematical concepts in the system of preschool and primary education, as well as improving mechanisms for enhancing pedagogical cooperation with families, communities and educational institutions.

The above-mentioned issues were based on scientific-practical work during the experimental work. Studies on the problem have shown that the education system of developed countries is focused on improving and restructuring curricula.

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