PEDAGOGICAL FUNDAMENTALS OF MATHEMATICS LESSONS IN PRIMARY GRADES

Axundjanov Ibragim Maratovich
Mathematics teaching methodology
Andijan State Pedagogical Institute

This article classifies the pedagogical foundations of today's modern primary education and highlights the specific aspects of teaching mathematics in this educational process. Also, the importance of mathematics lessons in primary grades and its subject matter is studied in the article.

Keywords: socio-economic relations, teaching tools, research methods, mathematical reality, arithmetic material, didactic materials, visual aids.

In recent years, teaching mathematics at schools in our country, especially in the primary education system, has made and continues to make extremely large changes in terms of its scope and importance. For example, Article 12 of the Law "On Education" of August 27, 1997, is devoted to the education of grades I-IV. Clause 3.3.1 of the "National program of personnel training in the Republic of Uzbekistan" dated October 6, 1997, shows the plans for the organization of training in grades I-IV in the development of continuous education. Setting new goals for school education leads to a radical change in the content of mathematics education. Mathematics requires development both in the content of the elementary course and in the methodology of using textbooks and manuals. The process of formation of today's socio-economic relations, the competition of market relations, the requirements of the National Personnel Training Program, and the Law on Education do not fail to have an impact on the methodology of teaching mathematics in primary grades. The word mathematics is derived from the Greek word "mathema", which means knowledge of sciences. The object of study of mathematics consists of spatial forms and quantitative relations between them. The purpose of the school mathematics course is to provide students with a system of mathematical knowledge, taking into account their psychological characteristics. This system of mathematical knowledge is delivered to students through certain methods (methodology).

The methodology is a Greek word, and method means way. The mathematical methodology is a branch of pedagogic science that is part of the system of pedagogic sciences. Setting new goals in teaching led to a radical change in the content of mathematics education [1]. To effectively teach elementary school students in mathematics, the future teacher must acquire and thoroughly master the mathematics teaching methodology developed for elementary grades. The subject of methodology of primary education in mathematics consists of the following:

1. Justification of the intended purpose of teaching mathematics (Why mathematics is taught, taught).

2. The scientific development of the content of mathematics teaching (what to teach), how the level of knowledge is distributed in a system that corresponds to the age characteristics of students, consistency is ensured in learning the basics of science, educational activities The

burden of classes is eliminated, the content of education corresponds to the students' specific knowledge capabilities.

3. Scientific development of teaching methods (how to teach, that is, what is the methodology of educational work so that students acquire the economic knowledge, skills, abilities and mental activity that are needed today must be?

4. Teaching tools - use of textbooks, didactic materials, instructions, manuals and educational and technical tools (how to teach).

Scientific development of educational organization. (how to organize the lesson and extracurricular forms of education) Mathematics methodology is related to pedagogy, psychology and youth psychology. Primary mathematics methodology is related to other science methodologies of education (methodology of mother tongue, science, painting, labor and other subjects).

The teacher needs to take this into account to correctly implement intersubject communication in teaching. Methods of scientific research are methods of obtaining scientific information to establish legal ties, relations, and connections and build scientific theories. Scientific-pedagogical research methods include observation, experience, familiarization with school documents, study of students' work, interviews and questionnaires. Recently, the use of mathematical and cybernetic methods, as well as modeling methods in teaching mathematics, has been noted.

The lesson is a historical, complex form of organizing mathematics education at school, verified by many years of experience and meeting the basic requirements of the present time. In the centuries-old history of the development of mathematics from the earliest times to the present day, four periods of its development are noted:

1. The period of the emergence of mathematics related to the summation of initial factors. In this period, mathematics does not yet have its own subject and method as a separate science, but only some facts are collected from mathematics. An example of this is ancient Egyptian, Babylonian, Chinese and Indian mathematics.

2. The period of elementary mathematics. Ancient Greek mathematicians founded this era and it was continued by Middle Eastern scientists in Central Asia, including Al-Farghani, Abu Ali Ibn Sina, Omar Khayyam, Ulug`beks.

3. The period of mathematics of variable quantities.

4. The era of classical higher mathematics.

The student's acquisition of mathematical knowledge depends not only on choosing the right method in the study but also on the form of organization of the educational process. A lesson is an educational work organized by a fixed number of students under the guidance of a teacher, based on a specific schedule, according to the program [2]. During the lesson, students learn from mathematics to theoretical information, calculation skills, problem-solving, and various measurements, that is, all educational work is done in the lesson. The unique aspects of the mathematics lesson, first of all, come from the characteristics of this educational subject. One of its features is that along with the arithmetical material, the elements of algebra and geometry are also studied. Another unique aspect of the elementary course of mathematics is the joint consideration of theoretical and practical problems. That's why in each lesson, new knowledge is given and practical educational skills are improved. The well-known scientist J. Ikromov in his book "Язык обучения математики" states that "Mathematical culture formation of schoolchildren is divided into several periods". First of all,

they determine the mathematical reality, which is the content of objective concepts. In this case, the connection between the accuracy characteristics of the objects and the historical aspects is of particular importance.

If we pay attention to the sentence of mathematical reality, students will feel this reality only when they directly know the importance of mathematical books in the life process, that is, when they directly perform examples and problems related to everyday life [3]. Therefore, the organization of teaching mathematics in connection with everyday life is important in the student's activity. Based on solving examples related to daily life, the student concludes that mathematical knowledge is not just knowledge to be mastered, but must be mastered as a vital necessity.

Usually, several didactic materials are implemented in the lesson: learning new material; consolidation of the passed material; consolidation of knowledge; generalization, systematization of knowledge; formation of solid learning and skills, etc. Another unique aspect of mathematics lessons is the abstract nature of the learning material. Therefore, it also depends on visual aids, careful selection of active teaching methods, student activity, mastery level of class students, etc.

Various district educational tasks are also solved in the mathematics lesson. It cultivates observation, intelligence, critical look at the environment, initiative, responsibility, conscientiousness in work, correct and clear speaking, accuracy in calculations, measurements and records, hard work, and overcoming difficulties. Today, the situation that needs to be justified is to provide pedagogical support to the student and to find convenient forms and possibilities of pedagogical support in the process of learning. Several concepts are worked on with students in each lesson. understanding of each concept is carried out by repeating and recalling another concept, and this concept serves to explain the next concepts. In the course of teaching, each educational material is developed, and this educational material is the foundation for understanding the materials that will be taught after it. If we look at the process of mastering another concept, it is formed as a result of teaching the interdependence of several lessons. In this way, the formation of mathematical concepts is not formed in one lesson, but in the process of passing some interconnected lessons. We call such lessons together a system of lessons. Therefore, the teacher should place the lessons that reveal the content of the subject in a logical sequence. The biggest requirement is to take into account the educational purpose of the lesson, to take into account the methodological and general pedagogical aspects of the teaching principles[4].

In conclusion, it should be noted that a well-thought-out system of lessons on the subject depends on the correct distribution of study time to the subjects. , drawing general conclusions from it should be in focus. After this knowledge is formed and consolidated in the lesson system, examples and problems should be solved. After that, it is necessary to process the skills with the help of exercises, as well as ensure that the acquired knowledge is always presented and summarized in one system..

References:

1.Turdikulova Maxbuba Xudoyqulovna. Boshlang`ich sinflarida matematika o`qitishni zamonaviy tarzda amalga oshirish imkoniyatlari. Наука XXI века №8 2018

2.Бабанский.Ю.К "Хозирги замон умумий таълим мактабида укитиш методлари" Т-Укитувчи 1990 й 227 бет

3.Jumayev.M. va b.q. "Boshlang`ich sinflarda matematika o`qitish metodikasi" T-2005 y 312 b

4.https://fayllar.org/mavzu-boshlangich-sinflarda-matematika-oqitish-metodikasi-fan.html