



Content of the Modular Education System in Teaching Mathematics

*Sadullayeva Mavjuda Ziyadullayevna¹, Yuldashev Sanjar Atabekovich²,
Islamov Yorkin Abduxakimovich³*

*^{1,2,3} Senior Lecturer,
Tashkent State Transport University, Uzbekistan*

ABSTRACT

This article describes the essence of a modern modular education system in the teaching of mathematics. The purpose of modular training is to adapt the content of education to the individual needs of the individual and the level of knowledge acquired. © 2021 Hosting by Central Asian Studies. All rights reserved.

ARTICLE INFO

Article history:

Received 8 March 2021

Revised form 25 March 2021

Accepted 10 April 2021

Keywords: mathematics, education, modular education, information technology

INTRODUCTION. We know that the need for an online education system has increased significantly in a pandemic around the world. This requires a very responsible approach in the education system. In this regard, the modular technology provides individual learning: it defines the content of teaching, the pattern of change, the degree of independence, teaching methods and techniques, methods of control and self-control. In the module classes, tests and assessment of academic performance are monitored. Rating points are collected on the basis of current, intermediate and final controls. Combining the idea of a module with a problem-based learning technology creates a problem-based learning technology that changes in the right direction.

The purpose of modular training is to adapt the content of education to the individual needs of the individual and the level of knowledge acquired. Modular education contributes to the systematic organization of the teaching process, further intensification of educational activities, rapid and high-quality mastery of the content of the subject, self-monitoring, assessment and self-study of students. allows you to develop work planning skills. In modular lessons, the content of the learning material is directly focused on the study of

mathematical objects, as well as the acquisition of general mathematical concepts, allowing students to master general mathematical concepts and a broader understanding of mathematical objects.

Self-monitoring refers to the set of intuition, movement, and mental activity required to evaluate the effectiveness and appropriateness of planning, and to identify and execute work actions to be performed. Modular learning leads to a radical change in the whole learning process, that is, in the teaching of its content and teaching methods.

The three interrelated concepts of the educational process reflect education, upbringing, and personal development. Modular learning technology makes it possible to implement this trio at the same time. Another advantage of modular technology is the regulation of educational content. To do this, the module program must select the information that will allow students to perform their activities successfully enough, based on the requirements of the DTS.

The content of modular education consists of the design of the educational process on the basis of modules and the independent work of students on the basis of individual curricula, and the mechanism that organizes it is an individual process of

implementing a problem-based approach. This rhythm is the organization of the content of the subject and its sections, the division of activities from a certain stage of education into logically connected parts. The purpose of the module itself is then realized through the step-by-step implementation of its program. Each activity that takes place in this process is considered as a single learning element.

The learning element includes: theoretical and practical information related to the teaching of specific elements of the activity, information about the materials that provide the activities necessary for learning, the motivation of learners goals, scope of training materials, means of monitoring the learning environment. The general purpose of the educational technology process depends on the purpose of the educational institution, the subject or any part of it, the identification of pedagogical and methodological activities, the purpose of the modular educational element.

The order of development of modular pedagogical technology is at the analytical stage

The Law "On the National Program of Personnel Training" and the Law "On Education", the STS on subjects, the conclusions drawn on the basis of the ideas put forward in them, are aimed at the formation of the younger generation as a harmoniously developed person. The content of the course, as well as the choice of the organizational form of education to achieve the overall specific purpose of the relevant training, are taken into account. At the conceptual stage, the concepts of education, the main ideas of the stages of the education system, the general conclusions are taken into account. The target stage takes into account the long-term purpose of the educational institution, the direction of education and the representation of a specific block in the structure of a particular subject. In the process, the teacher's responsibilities are revealed, as well as the teaching methods used to guide the students' learning activities. In this process, special attention is paid to the democratic principle of the relationship between teacher and student, the choice of effective methods, organizational forms and teaching aids.

Another peculiarity of mathematics lessons is the abstractness of the teaching material. Therefore, the visual aids, the careful selection of active teaching

methods, the activity of students, the level of mastery of students in the classroom, and so on.

In the mathematics class, various district educational tasks are also solved. It develops in students the qualities of observation, intelligence, critical thinking, initiative in work, responsibility and pure conscience, correct and accurate speech, accuracy in calculation, measurement and writing, diligence and overcoming difficulties.

Students work with several concepts in each lesson. If the understanding of each concept is done by repeating, recalling another concept, this concept serves to explain the next concepts. In the process of teaching, each training material is developed in a developed way, which becomes the basis for understanding the materials that will be taught later. If we look at the process of mastering another concept, it is formed as a result of teaching the interdependence of several lessons. Thus, the formation of mathematical concepts is not formed in a single lesson, but in the process of passing several interrelated lessons. We call such lessons a system of lessons together.

Therefore, the teacher should place the lessons that reveal the content of the topic 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 principles of teaching. A well-thought-out system of lessons on the topic depends on the correct distribution of study time on the topics.

It should focus on building students' independence, looking at specific examples, drawing specific conclusions, and drawing general conclusions from them. Once this knowledge is generated and consolidated in the lesson system, it should provide examples and problem solving. Then it is necessary to process the skills with the help of exercises, as well as to ensure that the acquired knowledge is always in the same system and generalized. One of the factors in increasing the activity of students in the teaching of mathematics and the development of their interest in mathematics is the independent work with students. In mathematics lessons, independent work is carried out in preparation for the study of new material, the introduction of new concepts, the strengthening of knowledge, learning and skills, as well as the control of knowledge.

Fulfillment of the requirements of the state standards of natural mathematics education by students helps them to acquire the necessary knowledge, skills and abilities, to form a positive attitude to learning:

- a) Adaptation of students to the natural environment, the formation of a new social status of students;
- b) Different types of activities: study, work, communication;
- c) Training in self-monitoring and assessment rating; g) a defined level of a certain general natural-scientific ability and a description of its further development.

Thus, the introduction of the state standard of natural mathematics education in the educational process is not only the acquisition of natural-scientific knowledge, skills and abilities in the disciplines, but also a certain set of basic activities of the individual labor, educational, communicative. -provides the formation of qualities that correspond to the moral and physical structure.

The foundations of the development of the science of mathematics stem from the practical needs of human activity, as do the development of other sciences. The development of science is based on the formation of this production. Indeed, the various branches of mathematics, while distinguished by the diversity of their methods in the study of the spatial forms and quantitative relations of the real world, are united by their uniqueness and generality.

The National Program of Continuing Education emphasizes the need to increase the scientific potential of students at all levels and levels of education on the basis of the principles of national independence and the rich intellectual heritage of the people and the priority of universal values. This responsible and complex task will be accomplished through the implementation of the state's National Training Program.

As an integral part of this program, the subject of "Mathematics" also plays an important role in raising the awareness of young people at all stages of the education system, in their development as highly intelligent people. At the same time, the task of educating young people with the science of "Mathematics" as worthy representatives of the true ancestors is solved. At present, the problem of

teaching specific subjects in educational institutions on the basis of new pedagogical technologies is one of the new problems.

Thus, modular learning technologies are a complex integrated system in which the knowledge, skills and competencies defined on the basis of educational objectives are regulated by the operations and actions aimed at the acquisition of personal qualities and knowledge by learners. reflected in the set.

REFERENCES:

1. Ishmuxamedov R.J., Yuldashev M. Ta'limvatarbiy adainnovatsion pedagogik texnologiyalar. T.: «Nihol» nashriyoti, 2013, 2016.
2. Tolipov O'., Usmonboyeva M. Pedagogik texnologiyalarning tadbiqiyasoslari T.: 2006.
3. Ishmuhamedov R. O'quv jarayonidagi interfaol uslublar va pedagogik texnologiyalarni qo'llash uslubiyati. T.: RBIMM, 2008.
4. Akbarov Nurislom Akhtamjon ugli, Aliyeva Nodira, Djurayeva Saida, & Yalgasheva Shirinhol. (2021). OPPORTUNITIES TO USE GOOGLE SERVICES TO ORGANIZE THE LEARNING PROCESS. *European Scholar Journal*, 2(3), 62-63. Retrieved from <https://scholarzest.com/index.php/esj/article/view/320>
5. Akbarov, Nurislom, THE MEANING OF EXTREMISM AND TERRORISM (January 02, 2021). TJS - Tematics journal of Sociology ISSN 2249-2987, Available at SSRN: <https://ssrn.com/abstract=3792330>