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PROCESSES OF IMPROVING INDEPENDENT KNOWLEDGE ACTIVITY IN THE INFORMED EDUCATIONAL ENVIRONMENT

Kudenov Temurbek Makhsetbaevich
Teacher, Nukus State Pedagogical Institute named after Azhiniyaz

Of cognitive activity independent of mathematics and its transformation into cognitive activity, especially by students studying in higher education, is a social reality for the research subject of mathematics .

Cognitive activity is based on the principle of striving for innovation, it is considered to be two inseparable edges of a single reality (phenomenon) that arises in the same period.

In the course of our research, we carefully studied the concept of "Independent cognitive activity" and developed our own author's definition. In our opinion, "in the process of improving independent cognitive activity, it is possible to develop the skills of future specialists to independently expand their knowledge, and for this, important qualities such as working with various information sources, analyzing data, coming to certain conclusions, and forming one's own point of view can be included. As a result, future mathematicians will acquire the skills of creative and constructive activity .

Of improving the independent cognitive activities of students of higher pedagogical educational institutions in the conditions of informatization of education, it is possible to ensure active and conscious acquisition of knowledge by students, as well as extensive preparation for professional activities, and clear and correct formation of life goals .

Due to the fact that the 21st century is the century of intellectual potential, it is necessary to determine the purpose, tasks, forms and methods of formation and continuous development of the knowledge activity of the young generation in the Republic of Uzbekistan based on scientific pedagogical foundations. The solution of this problem depends on the issues of improving students' independent cognitive activities, their activity in acquiring mathematical knowledge, and the formation of independent knowledge acquisition activities.

There are different views and scientific approaches to researching the process of independent cognitive activity of mathematics performed by students, their views

are different, and issues related to the effectiveness of cognitive activity are given a lot of importance.

The requirements for improving independent cognitive activities in the higher education system must have a high level of training. This is the demand of the time and society.

In the course of professional preparation, along with acquiring knowledge, independent knowledge activities performed by students in addition to mathematics lessons held in the auditorium are of great importance in acquiring special skills and in forming the worldview of young people. Especially in the current era, on the one hand, the amount of information and news is increasing, and on the other hand, the sources of working with information are also increasing.

In order for independent work in mathematics to be effective, students should pay attention to the following:

- improvement of independent cognitive activity plays an important role in the expansion of the individual's intellectual capabilities;
- to improve independent cognitive activity, they need to realize that it expands their worldview, concepts of mathematical thinking.

In improving independent cognitive activity, the student learns the main part of the information independently. Therefore, it is necessary to help students to properly plan their independent learning activities and organize their work time effectively.

Students have a clear understanding of how to start improving their independent knowledge, how to set a goal, how long the work will last, and how it can be used. For success, the focus is on:

1. The student should carefully plan the activity in order to develop the ability to work on it regularly. Each student divides his time individually among subjects.
2. Determines the period of performance of independent cognitive activities. It is necessary to divide the time for independent learning activity by semester.

The analysis of the results of practical activity shows that one of the most common types of improvement of independent cognitive activity is the abstract. The student should comprehensively explain the essence of a topic being studied in the content of the report.

The teacher should recommend certain literature to the student in order to prepare an abstract written in mathematics. The abstract cannot be written at once. To

prepare the text, he must first review the literature, make a plan and start writing. As a result, the student learns to express his thoughts and ideas.

The subject of independent knowledge of mathematics can be written not only within the framework of the textbook, but also using additional literature - newspaper and magazine articles. If an author's opinion is of particular importance to the subject, it is copied and quoted, annotated, numbered, and cited. It also shows the name of the referenced author, title of the work, publisher, year of publication, and page number. The conclusions made based on the text on the mathematical problems raised increase the value of the work, and indicate that the student has deep knowledge of the subject and has good knowledge. Along with covering a specific topic, relevant scientific theories, conclusions can be presented and criticized.

The list of used literature shows all studied literature. Newspaper, magazine articles, monograph, collection, the name of the author of the work is written in full, the article and others are cited in full, the publisher and publication year, and the year and number of the newspaper-magazine are also indicated.

Organization of students' independent research work in small groups gives good results. The goal of organizing independent research is to increase students' interest in education, to form the skills of applying knowledge in certain life and professional activities. Students conduct collaborative research on a mathematical problem and obtain concrete results.

Mathematical problems to be studied should be relevant, theoretical and practical for students.

1. It is necessary to involve every student in the active educational process, to achieve the formation of skills to apply acquired knowledge and skills in practice. The most important thing is that the student should know exactly where and how he can apply the acquired mathematical knowledge and skills.

2. In the process of collaboratively solving various mathematical problems, it is necessary to pay attention to the formation of the culture of mutual communication of students.

3. It is necessary to pay attention to the development of students' ability to use the opportunities of scientific and cultural information centers of the university, republic or world level in order to comprehensively research a specific mathematical

problem, to have a scientifically and practically based independent opinion on this issue.

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