FORMULATION OF KEY COMPETENCES OF THE NEW UKRAINIAN SCHOOL IN STUDENTS IN PHYSICS LESSONS

Modern civilization is developing very dynamically. Especially in the field of digital technologies. That contributes to the promotion of new requirements for the educational process. First of all, to basic, school education. Therefore, modern school education in many countries of the world is aimed at providing students with the necessary knowledge, developing their skills and abilities, and mastering a large amount of factual material.

But that’s not all. The modern education system contributes to the formation of students' skills and abilities to deliberately and independently make decisions, be goal-oriented, be responsible for choosing their own development path, think critically, resolve conflicts, cooperate, be able to work in a team, use information and communication technologies and be oriented to the labor market [2, 133].

Competence approach is recognized as basic in the formation of education in Ukraine and the European Union. It is seen as the core constructive idea of continuing education. Competence-oriented education involves significant changes in the educational and upbringing component of the educational process. It is not only about updating the content of education, but also about radical changes in the educational process and educational technologies [4, 99–100].

The formation of the key innovative dominant of modernization of secondary education is due to the introduction of fragments of social practices, active involvement of teachers, the public in determining key life competencies, ways and means of their development in general education. An important task is to restructure the school from an extensive, subject-oriented model to an intensive model of formation of vital competencies. The basis of the new Ukrainian school is the acquisition by students of eleven vital competencies that they will be able to apply in the private and public spheres of their lives [1, 172].

This means that they have a need for self-knowledge, self-understanding, self-regulation; mastering the methods of rational resolution of interpersonal contradictions and conflicts; striving for a conscious and adequate assessment of the results of their creative and professional activities; features of the organization of the way of life; ability to interact effectively with people in the system of interpersonal relationships; to be responsible for the performance of vital and social roles; to solve life problems and tasks. And in this process, physics plays not the least role [2, 135].

It is physics that creates knowledge about the world, accumulates skills, technologies, expands the apparatus of cognition, through which it implements a system of physical education that is useful to all. The new curriculum provides for the development of students’ research skills, creativity and creative thinking. It is clear that to achieve this goal is not enough to simply accumulate knowledge about physical theories, laws, certain facts and information [3, 85]. Therefore, the technologies and methods of teaching physics, which stimulate mental activity in students, dominate over memorization and thoughtless assimilation as the largest amount of material. This problem is not new, but the search for possible solutions has always been the subject of research by psychologists, educators and scientists [2, 136]. The solution of this problem is not possible without the use in the pedagogical process of the principle of optimization of learning in
the context of the formation of students’ competencies of vitality and creativity. The correct, scientifically sound choice of technologies, methods and techniques of physics lessons determines the optimization of the learning process. It should follow the path of improving the content of education, i.e. bringing it in line with the needs of society and the capabilities of students [4, 103].

The problem of optimizing the process of teaching physics is primarily related to finding something new in the theory and practice of teaching. The study and analysis of the practical activities of a physics teacher provides a basis for identifying difficulties that arise in solving educational problems. Such difficulties necessitate a study of the specifics of optimizing the pedagogical process. The result of the creative search for non-standard solutions to various methodological problems are specific forms and methods of teaching, non-standard approaches to the organization of the educational and cognitive process and new learning technologies. They are based not only on the processes of perception, memory, attention, but also on creative, productive thinking and communication, active forms and methods of learning. Technologies are active because they significantly change the role of the teacher. Thus, instead of the role of informant, he plays the role of organizer of the process of learning new knowledge [1, 177].

The teaching of physics is also associated with the use of a large amount of diverse information, which makes the use of computer technology especially important. This allows you to process new information very quickly, representing it in the form of tables, diagrams, charts and determine the relationship between different objects and phenomena, structure and functions [3, 89].

Thus, studying the problem of «Formation of key competencies of the new Ukrainian school in students in physics lessons», the author of the study concluded that the acquisition of eleven vital competencies by students is a mandatory requirement of the information society. Not the last role in this process belongs to physics. And since the subject is based on interdisciplinary connections of natural-mathematical and special subjects, the acquisition of vital competencies in physics lessons is not possible without a subject teacher.

References: