

LEARNING AND TEACHER COLLABORATION IS AN IMPORTANT EDUCATIONAL PART OF INDEPENDENT WORK METHODOLOGY

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Abstract. In the article, a teaching model based on the scientific psychological-pedagogical concept of mastering the system of intellectual and practical skills in students, organizing education focused on the personality of the student is presented.

Key words: educational and research work, subjective experience, creative activity, educational and research skills, didactic process, emotional-volitional attitude.

Annotation: The article discusses the system of intellectual and practical skills abilities of students, a learning model based on a scientific psychological and pedagogical concept.

Key words: research work, subjective experience, creative activity, teaching and research skills, didactic process, emotional-volitional attitude.

TA'LIM VA O'QITUVCHINING XAMKORLIGI MUSTAQIL ISHLAR METODOLOGIYASINING MUHIM TARBIYAVIY QISMIDIR

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Annotatsiya. Maqolada, o'quvchilarda intellektual va amaliy ko'nikma qobiliyatlar tizimini o'zlashtirish, o'quvchi shaxsiga yo'naltirilgan ta'limni tashkil etishning ilmiy psixologik-pedagogik kontseptsiyasiga asoslangan o'qitish modeliqarabchiqilgan.

Kalit so'zlar: o'quv-tadqiqot ishi, sub'ektiv tajriba, ijodiy faoliyat, o'quv-tadqiqotchilik ko'nikmasi, didaktik jarayon, hissiy-irodaviy munosabat.

Аннотация. В статье рассматривается система интеллектуальных и практических умений навыков ученика, а также модель обучения основанная на научной психолого-педагогической концепции.

Ключевые слова: научно-исследовательская работа, субъективный опыт, творческая деятельность, учебно-исследовательские умения, дидактический процесс, эмоционально-волевая установка.



Students, under the guidance of the teacher, acquire the systematized knowledge of physics, develop the skills and abilities to apply the acquired knowledge in practice, they acquire the skills of handling various tools and equipment that are widely used in their daily life. Teaching physics is a two-way process, which includes the activity of the teacher (teaching) and the activity of students (learning). In order for the teacher to organize the educational process, it is necessary to know the psychological aspects of the students' acquisition of physical knowledge, as well as the ways of forming their knowledge, skills and abilities.

Another important task of teaching physics is the problem of developing mental abilities of students. The teacher should know mental operations such as analysis, synthesis, comparison, abstraction, clarification and generalization, which are components of mental development and methods of mental activity, and the connections between them, and pay serious attention to the acquisition of such mental operations by students. As a criterion of mental development in physics lessons and extracurricular activities, it is necessary to take into account the following: the speed of assimilation of educational material; the meaningfulness of thinking determined by the number of opinions; students' ability to think analytically and synthetically; to be able to transfer the methods of mental activity formed on the basis of studying one object to other similar cases; independent systematization and generalization of acquired knowledge. It is necessary to take into account the following specific features of the physics teaching process:

- to get into the essence of the studied object, that is, to take into account the structural forms and interactions of physical phenomena, objects, these are abstractions from students, building ideal models, changing from one form of abstraction to another requires the performance of imaginary operations, such as the implementation of a tooth;
- in teaching physics, more models and symbols of various forms are used (formulas, conventional symbols of electric circuit elements, graphs, etc.), in which students are asked to move from symbolic images to real objects and vice versa from real objects to ideal models a tooth is required;
- a unique feature of teaching physics is that students are required to observe various experiments and perform related practical work independently.

Taking into account the above-mentioned features serves the formation of actions and operations, i.e., activities, such as analysis, comparison, comparison, identification of general, specific and special features, abstraction, generalization, synthesis in students. It is important to motivate studying in classes and extracurricular activities, to form interest in studying physics. Aspects of students' interest in knowledge have been studied in the researches of many scientists. Interest in learning determines a positive attitude of the student to study in general and to learning some subjects. If the teacher is able to arouse interest in his subject in the student, then an opportunity is created for the creative independent work of the student, they strive for knowledge, that is, to overcome various difficulties on the way to its acquisition.

The Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan provides for the implementation of independent work, the search for and analysis of necessary information, the formation and development of qualifications, skills, and state education standards. In order to fully fulfill the educational load set for independent work, the model Regulation "On the procedure for organizing and evaluating the independent work of students" was approved by order No. 34 of February 21, 2005. It defines the goals and tasks of independent work as follows:



- formation of students' needs and ability to cope;
- management of cognitive activities in the "information → knowledge → new information" system; - collecting the necessary information independently;
- identifying the problem, searching for solutions; - critical analysis of acquired knowledge and skills and their application in solving new tasks; - training of competitive specialists through independent education; - development and implementation of advanced educational technology. Responsibilities: - to have the skills to master new knowledge independently; identifying convenient methods and means of searching for the necessary information; - effective use of information sources; - creation of an electronic textbook database; - purposeful use of the Internet; - determining the important solution of the task; - database analysis; - preparation and processing of work results summary; systematic and creative approach to tasks; - the developed solution, justification of the project and protection with the participation of experts. Based on this, the main principles of effective organizational and methodological support of independent education are: creation of an integral and continuous interaction of independent education with non-traditional studies and research; In organizing the student's independent work, the following forms are used, taking into account the specific features of the subject, the level of mastery and ability of the student: - independent mastery of some theoretical topics with the help of educational literature; - preparation of information (abstract) on the given topic; - applying theoretical knowledge in practice; finding solutions to existing problems in practice; - creating layouts, models, samples, etc.; - preparation of scientific articles, conference abstracts, etc.

One of the important mechanisms of organizing independent education is computer technology. The computer allows you to independently acquire new knowledge and solve various problems, and performs the following actions: Independent education can be effective by creating computerized classrooms, an automated information resource center, and a system for accessing the INTERNET network. For this, it is necessary to teach the students: to read educational and special literature constantly, to prepare lesson plans, to analyze and evaluate the material studied, to teach the principles of modeling and to conduct scientific research.

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