

## **DESIGNING OF STUDENT'S LEARNING ACTIVITIES ON TECHNOLOGY LESSONS**

### **ПРОЕКТИРОВАНИЕ УЧЕБНОЙ ДЕЯТЕЛЬНОСТИ УЧАЩИХСЯ НА УРОКАХ ТЕХНОЛОГИИ**

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#### ***Abstract***

This article addresses the problem of the value of the personal technological culture in the world of constantly expanding technological possibilities. The tendency to update content of the practice-oriented subject area "Technology" in Russian schools is discussed. The issue of enhancing students' subjective potential in educational activities is considered the main reserve of opportunities for the effective design of educational activities and the improvement of its organization. An analysis is given of the practice of creating methodological improvements on technology lessons based on an effective psychological and pedagogical basis.

#### ***Keywords:***

subject area "Technology", educational activity, student as a subject of educational activity, activation, goal and objectives of the lesson, methodical techniques.

The modern education system in Russia, as well as the education systems in other countries, is affected by numerous external and internal factors caused by trends in the world. The need for a flexible response by the education system to the objective progression of society is in conflict with its inertia in the preparation of training conditions when it comes to new content, teaching methods, and forms of training. The value of technological culture in human education is not theoretically disputed, but remains underestimated in the practice of education, which limits the freedom of individual choice and the ability to act in a world of constantly expanding technological capabilities.

Well-rounded development of the individual ceases to be the ideal goal of education and turns into a concrete educational task, the solution of which is untenable without a quality technological education. Its content in Russia is, when it comes to theory, fairly well represented in the works of V.M. Kazakevich [1,2] and other academics, however, the effectiveness of practical applications in the curriculum is criticized. At present, the third generation of FSES oversees the teaching and methodological complex on technology with a new thematic planning structure and a focus on indivisible classes. The proposed structure contains chapters such as "Materials for the production of material goods," "Properties of materials," "Technologies for processing materials," "Food and healthy nutrition," etc. However, whatever the content of the training, the essence of the educational activity does not change: learning activities as a process should be exciting, and its results consistently high. Therefore, the main reserve of opportunities for the effective design of educational activities and the improvement of their organization is the activation of pupils subjectivity.

The main characteristics of a pupil as a subject of educational activity are the awareness of trends in the world and an understanding of their mission in it, high cognitive motivation, search activity, research competence, independence and the ability to self-regulate. Expedient manifestations of subjectivity, such as awareness of one's cognitive needs, expression of one's own point of view, independent search for new ways to solve practical problems, and informed actions, allow the pupil to move from learning activities to life, becoming the subject of their life. The teacher's inclusion in the design of educational activities "from the pupil" means the maximum possible consideration of the laws of the pupil's age and individual psychology, life experience, relevant motivation, and prospects for the development of personality. Despite the fact that the "subjectivity" of the pupil in the educational process is a recognized position, the degree of thoughtfulness of the conditions for its manifestation in the lesson remains insufficient. The teacher's inclination to explain everything in an accessible manner in the form of a monologue does not give the desired result, nor does going to the other extreme - "handicraft" (excessive enthusiasm for manufacturing products). The memorization of educational material and the transformation of concrete material objects are means, particular tasks in achieving the highest goal - the harmonious change and development of the person themselves in the process of working on this educational material and with the objects of labor. Therefore it is a priority to address the issue of activating the subjective potential of pupils in educational activities as an important aspect of the process of their technological preparation, and designing educational activities from the perspective of their conscious activity in the educational process. It is essential to create a robust trend to accept changes in emphasis in the system of attitudes, opinions about the process of technological preparation, not as a learning process, but as an exciting process of research and focused learning. The main task of the teacher is to organize educational activities in such a way that a pupil in the 40-minute duration of a technology lesson sees and makes maximum use of his individual lesson time for the same duration.

It is well known that true learning is built on interest and the desire to learn, the value of goals, and on the relevance of new knowledge and skills for a fulfilling life in the present and the future. Therefore, goal setting and selecting content should meet requirements such as a clear understanding of the actual usefulness of the information being acquired, the assimilation of knowledge in the same or similar form in which it will subsequently be used in life, and the creation of conditions that facilitate the transfer of acquired knowledge to new situations, to solve new problems. Involvement in the learning process is manifested in situations of "discovery of knowledge" by the pupils themselves, i.e. their search activity in the zone of proximal development. Therefore, it is very important that the teacher anticipate what features of the material can attract and hold the attention of pupils in the lesson, create an emotionally positive background, cause surprise and interest in learning. Equally important is the teacher's visualisation of changes in the behavior and actions of pupils that he expect to see after the lesson ends (with whom the student wants to share and discuss new knowledge, when and where he want to apply it).

The indicated positions form the basis of the methodological preparation of students for the organization of educational activities of pupils in technology lessons. At the moment, we have a set of methodological developments of technology lessons, built on an effective psychological and pedagogical basis, which is used to prepare

students for the design of educational activities of pupils. The set is periodically replenished with new developments created during the individual work of methodologist with a student in pedagogical practice or in the process of preparing for a professional skill competition. [3]

Man's creation of material culture is based on knowledge and the ability to use the general and unique properties of objects of labor. Therefore, the content of the subject area "Technology" is closely interconnected with the study of the properties of materials, the conditions for their change and a variable combination for solving practical problems in life situations. The study of properties should correspond to the methods of their detection and study in science and in life. Since the knowledge of the properties of the objects of the surrounding world begins immediately after birth, in learning, one can rely on the experience available to pupils. This leads to the using in the formulation of the educational goal next expression "expansion of ideas" and in the choice of methods for studying properties through their observation, research, experimentation, and modeling. This is the general concept that unites the design process of such outwardly dissimilar lessons on the following topics:

"The egg and its amazing properties", Grade 5 (goal: expand ideas about the properties of an egg, the peculiarities of the influence of its components on culinary products, and the development of cooking methods using eggs);

"Properties of fabrics", Grade 7 (goal: to expand ideas about the assortment and characteristics of textile materials for an informed choice and assessment of their use in clothes and household items);

"Properties of metals and alloys", Grade 7 (goal: to expand ideas about the nomenclature and properties of structural and instrumental materials for the conscious choice of their useful application in solving specific technical and technological problems in practical situations).

In the process of training on these topics, pupils were given ample opportunity to express themselves in different ways and they successfully used them: as observers, they recorded facts; as researchers conducted the experiments; as analysts compared, thought, summarized, and made conclusions; as generators of ideas, proposed options for solving problems; as practitioners looked for ways to translate interesting ideas into new conditions.

School lessons are a unique and significant of the time and value fragment of the teacher's and pupils' life. The eternal question of education, "What and How to Teach?" is relevant at all times, because the "times" themselves are changing. The design of pupil-learning activities in technology lessons should be consistent with the subjective experience of the pupil in a world of ever-expanding technological capabilities. The development of the ability to creatively work on the elements of educational activity and the holistic composition (design) of the lesson, taking into account the peculiarities of the learning situation, is a source of inspiration for creating fascinating technology lessons and a way to become a good teacher.

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