



TEACHING ELEMENTARY SCHOOL STUDENTS TO MODELING AND CONSTRUCTION WORK

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Abstract: *The article presents information and suggestions on the advantages and objectives of using educational technologies in teaching primary school students technical modeling and design. It is about how modeling and construction, which are taught in the classroom, affect the improvement of the effectiveness of students' learning of the subject, contributing to further increase students' interest in the lesson.*

Key words: *modeling, construction, design, composition, engineering, physics, mathematics, electrical engineering, cybernetics*

The laws and legal documents adopted in our republic in various social spheres, along with regulation of relations, fundamental reform of the education system, improvement of education efficiency, improvement of the current system and introduction of foreign experiences remain an important task.

Under the initiative of the President of the Republic of Uzbekistan Sh. Mirziyoyev, fundamental reforms in the education system have been implemented in recent years.

In the new edition of the Law of the Republic of Uzbekistan "On Education" it is mentioned that a new stage of reforms in the education system has begun, as a result of which the content and essence of the education system will be further improved.

The main goal of the reforms being carried out in our country is to create a healthy and well-educated generation with high creative abilities.

Science is the basis of development. Neither the state nor the society has a future that does not rely on the achievements of modern science and innovative ideas. We can take Uzbekistan to a new stage of development only at the expense of science and enlightenment, intellectual potential, well-educated personnel.

In pedagogical literature, the concept of modeling and construction is understood as modeling means creating a copy for something, building, as well as creating something in general. In addition, research of physical phenomena and processes with the help of models; the concept of modeling is also suitable



for making models of objects (living and non-living systems, engineering constructions, physical, chemical, biological, social processes and design objects). There are technical, physical, mathematical, electrical, cybernetic and other types of modeling. What we need is not among these, but ours is a whole new field of technological modeling and construction.

According to E.M. Galyamov's design term (from the Latin constructio - composition, addition) means the creation, construction, certain arrangement and relationship of a model of various individual objects, parts, elements. Among these, we can add that in modeling, the student first cooks its model in his mind in order to make, say, a Christmas tree toy. Then he writes it down on paper. The next step is to start the work process after preparing what kind of products it should be made from. This is why the concept of modeling is formed in young students. This concept can have different meanings.

For example, young children, let's say kindergarten age, play with cubes, circles of different colors and shapes and put them next to each other and put the circles on a stick according to their size. While playing these elementary games, they begin to develop small skills related to construction and modeling. During this activity, constructions may appear spontaneously. That is, the child's interest in what he does on his own increases, he does not even imagine that it is related to construction and modeling, but at the same time, his interest in this game increases.

For example, first he sorts the circles from big to small, then he tries to do the opposite or tries to sort the cubes in different ways. Therefore, he begins to model games without knowing it. It appears by chance - in this case, we cannot yet talk about modeling and construction, as we mentioned above. We just need to encourage him to innovate, and this will help him develop all kinds of skills.

Describing the concept of modeling and construction, it should be noted that in the literature we have studied, it is said that it is possible to design not only from ready-made parts - from the "Constructor" sets, but also to use design parts in the process of modeling, that is, to be created, developed product. This means that students can make all the design and model parts themselves. In addition, we emphasize that you can design not only technical models or mock-ups, but also any product: an art postcard, a notebook, an apron or a toy. Because, as we mentioned above, modeling and construction has been showing effective indicators during its activity in every field.

For example, designing a toy means not only expressing its appearance in the material, but also determining the shape, color, texture of the material, etc. of each part. fully develops it. We can come to the following conclusion from the fact that we introduced the construction as a teaching tool in the pedagogical process for the active development of the student's thinking.



Modeling and construction activities are creative. All other situations in which the reader considers himself to be the executor of someone else's plan from the beginning to the end cannot be called construction, that is, modeling.

Neither the repetition of previously known actions nor the aimless manipulation of objects is related to modeling. I would like to note that two types of modeling are identified in the literature we studied:

1. Artistic, which includes the creation of technical and visual images that teachers show existing objects.

2. Modeling and construction. In any of these ideas, two interrelated steps can be considered: creating a plan and executing it. Currently, there are various classifications of educational design types in theory and practice. Any classification involves the determination of some principles, which principle also allows to distinguish one species from another.

Thus, trying to understand the essence of the concept of modeling and construction, we pay attention to the fact that, first of all, it is the activity of the mind, not the hands; it is development, creation; We emphasize that this is not a creative activity, but an executive activity.

FOYDALANILGAN ASOSIY ADABIYOTLAR RO'YXATI:

1. O'zbekiston Respublikasining "Ta'lim to'g'risida"gi qonuni yangi talqini. 2020 yil 23 sentabr.

2. Sh.M. Mirziyayev. Ta'lim sohasidagi muammolar, ularni hal etish va ta'lim sifatini oshirishga bag'ishlangan videoselektor maruzasida 30.10.2020.

3. X.Sanakulov, D.Xodiyeva, M.Satbayeva "Mehnat va uni o'qitish metodikasi" darslik. T.: Tafakkur gulshani. . 2015.

4. X.Sanakulov, D.Xodiyeva, M.Rustamova "Mehnatdan sinfdan tashqari ishlar" metodik qo'llanma T.: TDPU. 2015.

5. Мавлонова, Р. А., Санакулов, Х. Р., & Ходиева, Д. П. (2007). Технологик ва уни ўқитиш методикаси. Ўқув қўлланма. Т.: ТДПУ.

6. Sharipova, D., & Khodiyeva, D. (2018). M. Shirinov Natural science and its teaching methods. *Textbook*. T.: «Barkamol fayz media».

7. Pirimovna, D. (2021). Improving the technology of teaching future primary school teachers to organize educational lessons on the basis of an innovative approach. *湖南大学学报 (自然科学版)*, 48(11).

8. Zoda, M. T. L. T. (2023). Развитие Коммуникативной Компетентности Учителя Начальных Классов Как СоциальноПсихолого-Педагогическая Проблема. *Pedagogical Cluster-Journal of Pedagogical Developments*, 1(2), 445-450.

9. Isomiddin o'g'li, H. A. (2023). Integrativ yondashuv asosida bo'lajak boshlang'ich sinf o'qituvchilarining refleksiv kompetentligini rivojlantirish



mazmuni. *Finland" modern scientific research: topical issues, achievements and innovations"*, 14(1).

10. Ходиева, Д. П. (2020). Дидактические возможности контекстно-проектного обучения в овладении будущими учителями ключевыми компетенциями. *Путь науки*, (2), 84-85.