METHODS TO INCREASE ALGORITHMIC THINKING IN PRIMARY EDUCATION

Bekjan Askarovich Akhmedov
Chirchik State Pedagogical University

ABSTRACT
In this article, it is given the content of modeling skills formation in primary school pupils. It is also covered theoretical and didactic basis of using comparison, selection, construction and reformation methods in formation of modeling skills in primary school pupils.

Keywords: Modeling, model, method, method, basic competence.

Today, large-scale reforms are being implemented in the field of primary education in Uzbekistan. The content of primary education is changing radically within the framework of the national curriculum. The main goal of the implementation of the national curriculum is not only to create certain knowledge, skills, and abilities in students, but also to develop their logical, creative, heuristic activities, and to gain experience in modeling certain objects. The main content of basic competences is the formation of practical skills in students as a result of learning.

Among the basic competences of the students is the deep perception of various educational materials, the clear perception of objects and their representation in the form of certain models. As a result of such modeling, students' opportunities to perform educational and practical tasks are expanded. For this purpose, based on the development of students' cognitive activity, it is envisaged to educate them in a goal-oriented manner. In the course of education, in addition to learning the reality in the environment, students acquire the following skills: observation, analysis, generalization, comparison, classification, popularization, modeling, etc.

The results of the analysis of the process of primary education at the school made it possible to identify a number of cases. In some cases, it is possible to witness an increase in the volume of theoretical materials even when the content of education is selected based on deep foundations. The main goal of the educational process is to make students think deeply, think, and advance productive thoughts.

Educational subjects such as mother tongue, mathematics and the world around us have special opportunities in forming an independent thinking person. Teaching students to think has become a priority goal of school education today.

Today's development of primary education pedagogy shows the need to pay special attention to expanding students' ability to think in the process of solving tasks. Most students aim to do more of the same type of task. They suggest that the more assignments a student completes, the more knowledgeable he or she is. They focus more on students' recognition of objects based on their external features. Therefore, in the process of completing each task, students try to complete it, paying attention to their external signs. If the students cannot identify the object, they will not be able to complete the task. That is why, when faced with new tasks, students repeat the idea that we did not complete it. They always get used to completing tasks using methods that are familiar to them. That's why the search for new tools and methods of solving tasks, encouraging students to think in this process, is gaining special relevance today. Educators evaluate modeling as a productive method of organizing the educational process.

Learning models have their own characteristics as a tool for improving the quality of education. These features make it possible to ensure the productivity of the educational process. Many specialists P.Ya.Galperin, V.V.Davydov, L.V.Zankov, N.I.Nepomnyashchaya have emphasized the advantage of using the modeling method in the educational process. Therefore, the problem of modeling has been expressed in many studies. These works are devoted to the clarification of pedagogical-psychological and methodical directions of education, and the formation of modeling skills in students serves to ensure the productivity of the educational process. In most works, modeling is interpreted as a means and method of learning. For example, the works of L.M. Fridman, G.A. Ball, Yu.M. Kolyagin, E.N. Turetsky, A.L. Jokhov, A.G. Mordkovich, V.P. Radchenko are among them.

Imagery materials are modeled at the time they are displayed. Verbal and symbolic information is easier for students to understand. These serve to ensure stability of understanding.

In the practice of primary education, not enough attention is paid to the formation of modeling skills in students. In the textbooks, little space is devoted to this issue. Teachers believe that modeling should be done mainly in mathematics lessons. This is definitely the wrong approach. In addition, some aspects of modeling have been studied in methodological studies. Observing the educational process clearly shows the need to use modeling in solving tasks using different methods. The use of graphic modeling methods in solving tasks is also of particular importance in the intellectual development of students.

Teachers should pay special attention to the use of the modeling method in the process of working on tasks. It is important to use modeling in the implementation of planning research in the process of solving tasks. Modeling is of particular importance in solving tasks, and occupies a unique place in the intellectual development and logical thinking of elementary school students. To date, teaching students to model does not occupy a sufficient place in the work of teachers.

Our observations show that students' modeling skills are not sufficiently developed during the tasks. We tried to find out the main reasons for this. It was found that students did not use modeling at all in the planning and research stages when working on solving text tasks. They can work on finished models. However, the formation of new models creates certain difficulties for students.

In most cases, it was observed that teachers did not distinguish between the concepts of model and modeling. Modeling as a method of learning has its own development trend.

Experts have different approaches to the concept of a model. It is necessary to use a number of methods in the formation of modeling skills in students.

Comparison method. This method is used for the purpose of forming the ability to analyze assignment texts. Comparison is important for students to develop abstract thinking skills. This method is important for understanding the interrelationships of verbal, graphic and symbolic models between subjects. The method of comparison ensures that the students quickly master the educational materials and perform the educational tasks in a high-quality manner. In this, the teacher should teach the students to understand and distinguish the characteristic features of objects, their origin and interrelationship. At the same time, it should be considered to distinguish aspects that will be the basis for comparison, to achieve goal-oriented improvement of modeling skills from lesson to lesson. Attention is paid to the formation of other modes of mental activity in interaction with modeling. The formation of comparative skills can be determined by giving students various tasks and controlling their solutions. For example, "Show the common and different aspects between the subjects you compare...", "... show the signs", "what are the similarities and differences between them?" like

Selection method. The selection method is also of special importance in the formation of modeling skills in students. This method is important for elementary school students to explain their judgments. The content of the task is of particular importance for this. This method is important for understanding the essence of concepts, understanding the general characteristics and content of actions, and developing the relationship between them. The process of completing any task requires a chain of judgments. This allows to justify the naturalness of the different methods used by the students.

Method of reformulation. The method of reshaping is also of particular importance in the formation of modeling skills in elementary school students. This method facilitates the process of understanding causal connections between the studied concepts. Students will be able to generalize the methods of action. At the same time, they manage to master numerical and letter materials. When completing tasks, students' actions are directed to the following: change, highlight, replace, etc. Students can be given a specific task and required to complete it in one move.

Method of construction. This method serves to realize the creative abilities of students. Using this method, students are able to understand the relationship between objects, drawings, and models represented by symbols. They are able to transfer acquired knowledge, skills and competences to new fields of knowledge. Students perform construction tasks as a result of research. This ensures the development of thinking in them. In this case, the teacher directs students to model the main actions based on the following instructions: put the desired symbol, ...build, select, etc.

Organizing the educational process based on the realization of students' creative potential gives them the opportunity to effectively form modeling skills. In addition, the coordination of the formation of students' modeling skills on the basis of the modernization of the educational content is of special pedagogical importance. The implementation of DTS based on the competence approach serves to ensure the effective formation of modeling skills in students. In order to ensure the success of the educational process, it is necessary to form general educational skills and competencies in students. It is intended to expand the possibilities of forming modeling skills among students in each educational subject.

In terms of their content, general learning activities are close to the concepts of general learning skills, general cognitive activities, general activity methods, interdisciplinary learning activities. The issue of formation of general learning skills in students has been widely studied in didactics.

In a broad sense, the issue of formation of learning skills of a universal nature means teaching students to acquire knowledge and apply it. In this process, students will have the opportunity to develop and improve themselves based on the acquisition of new experiences. In a narrow sense, this term represents a set of student actions. These actions involve the acquisition of new knowledge and practical actions for students.

The universal nature of educational activities represents their integrative nature. These skills allow for holistic organization of students' general cultural, knowledge-based and personal development and self-development. In addition, it serves to ensure coherence and continuity between all stages of the educational process. Creates conditions for organization and management of all students' actions, regardless of the subject content. Educational actions of a universal nature allow to ensure the stages of mastering the content of educational materials and the mental abilities of students based on the effective formation of modeling skills.

Learning activities of students of a universal nature determine the basis of education and form four important blocks: learning activities based on personal, management and self-management,

knowledge-based, communicative nature. We'll go into more detail on universal knowledge-based learning activities below. Because these learning activities include universal, logical, signs and symbols-based, problem-solving and problem-solving activities.

REFERENCES

1. Жабборов, А. М. (1997). Фарғона водийси айрим агроценозларидаги муҳим ҳашаротларнинг экологияси. Биол. фан. номз…..
2. Mashrabovich, Z. A. (2021). Shursuv and Shursuv Industrial Zone.
3. Mashrabovich, Z. A. (2021). Physical and Geographical Features of the Fergana Valley. International Journal on Orange Technologies, 3(3), 94-97.
4. Zhobborov, A. M. (2019). Biological and Ecological Peculiarities of Cabbage Whites in the Conditions of the Fergana Valley. TJG Tematics journal of Geography.
5. Жабборов, А. М. (1997). Экология важнейших насекомых отдельных агроценозов Ферганской долины.
6. Saidakbarovich, M. M., & Mashrabovich, J. A. (2022). FORMATION OF ECOLOGICAL CULTURE IN THE TEACHING OF FLORA AND FAUNA IN GEOGRAPHY CLASSES. *Academicia Globe: Inderscience Research*, *3*(12), 115-118.
7. Isabayeva, M., & Ne'matov, A. (2022). Ways of Preparing Teachers for Professional Activity Based on Innovative Educational Technologies. *INTERNATIONAL JOURNAL OF INCLUSIVE AND SUSTAINABLE EDUCATION*, *1*(5), 321-322.
8. Абдуназаров, Л., Неъматов, А. (2022). Биология ўқитишда эвристик таълим технологиясидан фойдаланиш имкониятлари. Янги Ўзбекистон тараққиёти даврида, 1(1), 488-491.
9. Неъматов, А. Х. (2021). Инглиз ва ўзбек тилларида қўлланилувчи метафораларнинг услубий хусусиятлари. Илм-фан муаммолари магистрантлар талқинида, 1(1). 175-178.
10. Бекмухаммедов, А., Неъматов, А. (2017). Линия ва нав аро рецепрокк дурагайларда чигит устидаги тукланишни назорат қилувчи генларни ўзгарувчанлиги. Марказий Фарғонада Қишлоқ хўжалиги маҳсулотлари, 1(1), 92-93.
11. Бекмухаммедов, А., Халбекова, Х., Неъматов, А. (2017). Изменчивость генов контролируюших морфологичиские признаки под действием радиации или получения направленной мутации путём подбора исходных генотипов. Тенденции та перспективи розвитку науки и освити в умовах глобализации, 17(31), 7-11.
12. Юлдашева, Д. Х. (2019). Урбанизатция жараёни ва шаҳарларни ривожланиши мавзусини ўқитишда минтақавий тофовутлар масаласини ёритилиши. ВЫСШАЯ ШКОЛА, 19(10), 135-137.
13. Абдуназарова, Х., Юлдашева, Д. Х. (2020). Ўзбекистонда туризм соҳасининг ривожланиши ва унинг хуқуқий асослари. Фарғона вадийси геогрифлари уюшмасининг илмий амалий семинари, 1(1), 95-97.
14. Юлдашева, Д. Х. (2020). ЎЗБЕКИСТОНДА ТУРИЗМНИ РИВОЖЛАНТИРИШДА ТАРИҲИЙ ШАҲАРЛАРНИНГ ЎРНИ. ИНТЕРНАУКА, 21(150), 155-160.
15. Nararov, H. Y., Yuldasheva, D. X. (2022). Ecological Features of Biogas Production. Ilm Sarchashmalari, 22(4), 124-126.

16. Tojiboeva, M. (2022). Expression of the category of numbers in Arabic nouns in the works of Alisher NavoI and Mahmudhoja Behbudi. *International journal of social science & interdisciplinary research ISSN: 2277-3630 Impact factor: 7.429*, *11*(09), 292-295.
17. Тожибоева, М. А. (2022). Проблемы та перспективи розвитку сучасной науки в крайнах Европи та Ази. Competence and the essence of geographical competentce, 1(1), 109-110.
18. Tojiboyeva, M. A. (2022). O'rta osiyo tabiiy geografik o'lkasini tabiatini o'qitishda zamonaviy axborot texnologiya vositalaridan foydalanish. Geografik tatqiqotlar innavatsion g'oyalar va rivojlanish istiqbollari, 1(1), 775-779.
19. Тожибоева, М. А. (2022). География компитентликни янги педагогик технологиялар орқали ривожлантириш. Geografiya fani va uni o'qitishning dolzarb masalalari, 1(1), 775-779.
20. Tojiboyeva, M. A. (2022). Use Of Didactic Capabilities Of Infarmation And Communication Technologies In Teaching Geography. Marsland press Multidisciplinari Academic Journal Publishe, 14(1), 63-66.
21. Tojiboyeva, M. A., Jobborov, A. M. (2021). Yoshlarga ekologik tarbiya berishda Muqaddas qadamjoylar o'rni. Илм-фан ва рақамли иқтисодиётни ривожлантиришда география фанини ўрни, 1(1), 80-82.
22. Boymirzaev, K. M., Tojiboeva, M. A. (2021). Zamonaviy pedagogik texnologiyalar vositasida geografik kompetentlik sifatlarini rivojlantirish. NamDU, 1(2), 58-62.
23. Tojiboyeva, M. A. (2021). Axborot va kommunikatsion texnologiyalar vositasida talabalarda geografik kompetentlik sifatlarini rivojlantirish. Экономика и социум, 10(89), 221-226.
24. Тожибоева, М. А., Жаббаров, А. М., Мелиев, М. С. (2020). Ферганская долина и её пустыни. Ученный XXI века, 1(1), 3-4.
25. Тожибоева, М. А., Назаров, Х.Ё., Жобборов, А. М. (2019). Талабалар географик маданиятини шакллантиришга иновацион ёндошув. Ўзбекистон Республикаси олий таълими-инновацион ривожланиш йўлида, 1(1), 131-135.
26. Tojiboyeva, M. (2019). Perspectives on the development of tourism in Uzbekistan. *Scientific Bulletin of Namangan State University*, *1*(1), 97-102.