



THE DESIGN METHOD AS AN EFFECTIVE METHOD OF FORMING THE COGNITIVE COMPETENCE OF PRIMARY SCHOOL STUDENTS

Khudoyberganov D.Ya.

Teacher of the Urgench State Pedagogical Institute

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Abstract: This article considers the design method as an effective tool for the development of cognitive competence of younger schoolchildren. The historical context of the emergence of this method, its principles and components are described. Examples of projects for younger schoolchildren are given and the advantages of using it to develop various skills and abilities are discussed. Special attention is paid to the use of technology in the process of project-based learning. In general, the article emphasizes the importance of the design method in the formation of cognitive competencies in children and focuses on its practical applicability and effectiveness.

Keywords: design method, cognitive competence development, John Dewey, project learning, principles of project learning, project examples, pedagogical practice, creative thinking, collaboration, Internet resources, multimedia presentations, online tools, educational process, self-control skills.

One of the effective methods of developing the cognitive competence of primary school students is the design method, which is a method of achieving a general didactic goal by gradually developing a task that ends with a practical result.

Many researchers have paid special attention to the issue of introducing the design method into the educational process. The appearance of this method in pedagogical practice is associated with the name of the American idealist philosopher John Dewey, who began his teaching career in the late XIX-early XX century, mainly in rural schools. According to his teaching, learning should be based on activities that take into account the personal interests and characteristics of each student. As John Dewey points out, the project method should be aimed at solving specific socially significant problems, regardless of whether it is a research, informational or practical task [3].

In the process of studying the design method, scientists have formulated various interpretations of the definition of this concept. Polat E.S. believes that this is a method of achieving a didactic goal through a detailed study of the problem, which ultimately leads to a real, concrete practical result [4].

According to G.M. Kocaespirova, the project method is a learning system in which students gain knowledge and skills by planning and performing more and more complex practical tasks - projects each time [2].

Analyzing the above definitions, we consider the project method as a specially organized cognitive activity, assuming the presence of a problem or socially significant issue in the context of research, planning specific actions to solve the problem, independent search and processing of information by students, obtaining practical results.

The design method serves as a link between the teacher, the student and his parents. The main task of a teacher is to awaken the desire of parents to work on the development of their family as well as on the development of their child. The participation of parents in the project demonstrates how exciting and enjoyable joint creativity with a child at home can be. But at the same time, it is very important that parents do not do all the work for the child, but only help him in finding advice and information when working with technical means.

The students' activities within the framework of the project are divided into several stages: research goals and objectives, various hypotheses and their verification, search for research methods, collection of necessary information, analysis and determination of the problem of forming final results.

The design method is considered one of the effective methods that contribute to the development of cognitive competence in younger schoolchildren. It is based on the principle of active involvement of students in solving real-life problems and issues, which develops their thinking, creativity, analytical abilities, and communication skills.

The design method consists of the following components:

1. Principles of project-based learning:

Encouraging student interest: projects are formed around interesting and relevant topics for students, which encourages them to actively participate in the educational process;

Involvement in the educational process: students actively participate in the planning, implementation and evaluation of projects, which contributes to the development of their independence and responsibility;

Contextuality: Projects focus on solving real problems in the world around us, which makes learning more meaningful for students;

Joint work (collaboration): Projects often involve student collaboration that develops communication, collaboration, and teamwork skills. [1].

2.Examples of projects for younger students:

Exploring the local ecosystem: Students can explore different plant and animal species in their region, make reports and presentations about their observations;

Creating a mini-book: Students can write and illustrate their own books on a chosen topic, developing their reading, writing and art skills;

Learning about cultural and spiritual traditions: Students can explore the cultural characteristics of different countries, have conversations with representatives of different cultures and prepare a presentation about their discoveries.

3. Advantages of the design method for the development of cognitive skills:

Encouraging thinking: Participating in projects requires students to analyze, synthesize and evaluate information to help them develop critical thinking;

Support for creative thinking: Projects give students the opportunity to express their ideas and solutions, which helps them develop their creativity;

Increasing motivation: Working on projects that present real content and interest to students can help increase their motivation to learn and succeed;

Developing self-control skills: Participating in projects requires students to plan their activities, allocate time, and assess their progress, which can help them develop self-control skills.

4. The use of technology in the project-based learning method:

The use of Internet resources for research and information retrieval. The use of Internet resources is an integral part of modern education and research. The Internet provides access to a huge amount of information, tools and services that can be used for various educational purposes;

Create multimedia presentations or videos to present the results of the project. The creation of multimedia presentations and videos plays an important role in presenting the results of the project. presentations and videos help to visually demonstrate the ideas and conclusions of the project, make them more understandable and memorable for the audience.

Using online tools to collaborate and share ideas within a project. Using online tools to collaborate and share ideas within a project helps participants work together, share information, and track the progress of tasks. Examples of such tools are Slack, Google Docs, Trello, Asana, and GitHub.

In general, the implementation of the educational process based on the design method is a powerful tool for the formation of cognitive competencies of younger schoolchildren, since it actively involves them in the educational process and stimulates creative thinking, as well as develops cooperation and communication skills.

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