

## INTEGRATION OF DESIGN APPROACHES AND VARIATIVE METHODS IN THE EDUCATIONAL PROCESS

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### Annotation

This article examines the importance of integrating design approaches and variational methods in the educational process. Project-based learning allows students to think creatively, develop practical skills, and learn independently. Variational methods, on the other hand, help to adapt the educational process to individual needs, increase students' analytical thinking and creativity. The article shows the possibilities of creating qualitative changes in education through the integration of these two approaches.

**Keywords.** education, variability, methodology, effectiveness, educational process, innovative methods, pedagogical views.

### Introduction

The integration of design approaches and variational methods in the educational process is one of the important tools for increasing the effectiveness of the education system. Project-based education provides students with the opportunity to apply their knowledge in practice, develop creative approaches and form various skills. Variational methods are of great importance in adapting the educational process to individual needs, developing students' creative and analytical thinking skills. The integration of project and variational methods gives students more independence and freedom in the learning process through various methods and approaches. These approaches not only improve the quality of education, but also help strengthen students' social and professional skills. The article aims to study the role and importance of the integration of design approaches and variational methods in the educational process.

Today, the need to form the thinking of a person based on national and universal values, to teach them to follow the humanistic ideas contained in them, is an extremely urgent task. After all, high human and moral rules are expressed in national and universal values, and we can only rely on them in the upbringing of a person. In particular, the issue of forming a person's thinking in values takes a central place.

As an example, we can cite the lofty thinking and dedication to science and the path chosen by our great ancestors, such as Khorezm, Beruni, Ibn Sina, Forabi, Amir Temur, Mirzo Ulugbek, Ali Kushchi, Alisher Navoi, Zahiriddin Muhammad Babur, Behbudi, Abdullah Avloni, Fitrat, etc. For example, the strong thinking of the great commander Amir Temur led

to his victory over the Genghisids and the establishment of a large centralized state, while Alisher Navoi's pursuit of knowledge and science made him famous throughout the world.

### **Analysis and results**

According to the experience of developed countries of the world, the issue of facilitating the manifestation of the individuality of the individual and providing pedagogical support is the only task of the educational process, and in this process, one of the effective ways to develop the pedagogical thinking of students based on a variant approach. In recent years, foreign pedagogical-psychological scientists and researchers have been paying attention to this issue. For the first time in the world, the term variation began to be used since the mid-1980s. Educational reforms that began in the developed countries of the world in the 1990s laid the foundation for the development of non-traditional and variational education systems. In particular, the Waldorf school, M. Montessori school and the school of self-determination of A.N. Tubelsky, D. Howard are among these schools. Later, in foreign countries such as Japan, America, Germany, Russia, variational education is considered an important type of modern education and is recognized as the main factor in the development of individuality.

According to the analysis of available sources and practical observations, the formation of thinking in a person is manifested in several ways, and in the formation of thinking, educational institutions, along with other educational institutions, have a number of tasks. Therefore, in today's hectic times, another important task of the educational process should be the formation of a person's thinking. After all, a person with a strong mindset can develop himself mentally, morally, emotionally, aesthetically and physically. Most importantly, such individuals can find the strength to freely express their creative abilities in relation to others, to independently fulfill their civic duty to the homeland and labor duties.

The word variation comes from the Latin word "variatio" (change, variety), which means the possibility of a certain process or phenomenon existing and developing in several forms, in different variants.

In pedagogy, the concept of "variation" refers to the possibility of using different educational technologies, methods and models in the educational process, without being limited to one traditional method or approach. In this case, the options in the educational process are adapted to the individual characteristics, abilities and needs of students.

The variant-based approach in pedagogy serves to improve the quality and effectiveness of education, as it helps to develop person-centered education. This approach is especially important in inclusive education, vocational education, and higher education.

The novelty and importance of the variant-based approach in education is confirmed by research conducted in recent years. For example, DMShumway [2.29-p] in his study emphasized the development of self-management and creativity skills among students through

the use of an individual approach. The results of this study showed the need to encourage students to actively participate in the educational process and use methods that help them discover their own abilities.

In addition, a study by T.Karpova [4.6-st] shows the importance of a variant-based approach in strengthening the relationship between teachers and students. The study emphasizes the need to introduce new methods aimed at developing teachers' interaction and communication skills. This, in turn, will further improve the individual approach of teachers to students.

New approaches include strategies such as gamification, project-based learning, and the use of interactive technologies. These methods help to engage students in the learning process, increase their interest, and further enhance learning effectiveness. For example, through gamification, the learning process is enriched with game elements, which increases students' interest in learning.

We know that the variant-based approach allows us to take into account the individual needs and abilities of students in the educational process, which helps them to understand themselves and achieve their goals. The free expression of students' thoughts, acceptance of different points of view and application of their knowledge in practice increases the effectiveness of education. This topic is also important for teachers and educational institutions. Improving educational methods helps to organize the pedagogical process more effectively and improve the quality of education. Educational methods that include the variant-based approach provide students with the skills necessary for success in life.

Thus, improving the methodology for teaching students a variable approach to the educational process will not only improve the quality of education, but also contribute to the active participation of the future generation in social life and the implementation of innovative ideas. The main objectives of the study are:

Analyzing the theoretical foundations of the variation-based approach in education. In this process, previous research, methodologies, and approaches are studied, as well as their role and significance in the educational process are determined.

Identifying practical forms and tools used in implementing a variation-based approach. The use of innovative technologies and interactive methods in the teaching process is explored.

Develop a research methodology appropriate to the topic under study. This methodology will allow for the assessment of teacher-student relationships and the effectiveness of the teaching process.

Conducting experiments to apply the theoretical knowledge gained in practice. During this process, it is planned to observe the development of interaction and creativity skills among students by using a variation-based approach.

Analyze the results of research and experiments and draw conclusions. Based on the results obtained in this process, recommendations are developed for further improving the educational process.

To develop practical recommendations for teachers based on the research results. These recommendations, in turn, will help in the effective implementation of the educational process and the development of students' skills.

These goals and objectives will help to increase the effectiveness of implementing a variation-based approach in the educational process, as well as prepare students for success in modern life. Thus, the research will be of great importance not only from a scientific but also from a practical point of view.

Methodology plays an important role in ensuring the effectiveness of research and reliable analysis of the results obtained. This study uses a number of scientific methodologies and research methods to identify effective methods for teaching students a variation-based approach to the educational process. These include approaches such as observation, experiment, questionnaire, and content analysis.

Observation is a fundamental method for analyzing the interactions between students and teachers and teaching methods in the educational process. By directly observing the activities of teachers and students during observation, it is possible to determine how the learning process is going and the interest and motivation of students, as well as their interaction.

An experiment is one of the basic research methods. Through this method, a comparison is made between two or more groups in order to determine the effect of using a variation-based approach in the teaching process. For example, one group uses traditional teaching methods, while another group uses variation-based approach methods.

The questionnaire method is used to collect and analyze the opinions of students and teachers. This method helps to determine students' relationships, interests, and attitudes towards teaching methods. Questionnaires can include:

- Student questionnaires: Students are asked questions about their opinions on the variable-based approach and what difficulties they face in the learning process.
- Questionnaires for teachers: Teachers' own experiences, difficulties in implementing an individual approach to students, and their willingness to use new methods are determined.

The results of the survey will help identify skills and methods needed to improve the teaching process.

Content analysis is used to analyze curricula, teaching materials, and methods used in the learning process. This method helps to assess the quality of resources and materials used in implementing a variable-based approach to the learning process. The information collected through content analysis is important for improving the learning process and developing new approaches.

The data collected during the research process is studied through two main analysis methods - qualitative and quantitative analysis.

The aim is to conduct an in-depth analysis of the data obtained, to explore the opinions and experiences of students and teachers. This is important in assessing the quality of the educational process and developing new approaches.

Analyzing the data obtained using statistical methods. This allows you to evaluate the results of experiments, questionnaire responses, and observation results in numerical form.

Using these methods together allows for a more reliable and thorough analysis of research results.

The above methods are important in achieving the main goals and objectives of the study. They will help to assess the effectiveness of applying a variation-based approach in the educational process, improve relations between students and teachers, and also improve the quality of education. The results of the study will be a valuable tool for teachers and educational institutions in applying new approaches in the educational process.

The above problems indicate the main difficulties that arise when applying a variant-based approach to the educational process. Approaches to solving these problems are important in improving the quality of education and preparing students for success in modern life. With the help of innovative approaches and methods in education, the educational process can be made more effective by strengthening the interaction between teachers and students, increasing student motivation, and providing them with the necessary resources. This, in turn, has a positive impact on the development of society.

The results of the study demonstrate the effectiveness of teaching students a variant-based approach to the educational process. The results obtained play an important role in assessing the impact of the methods and strategies used in the educational process. These results are analyzed based on approaches aimed at increasing students' communication, creativity skills, and independent thinking.

The results of the study showed that the variation-based approach is important in increasing students' interest in the learning process and their active participation in the learning process. 100 students participated in the experiment, 50 of whom were taught using traditional teaching methods and 50 were taught using variation-based approach methods. According to the results, students in the group using the variation-based approach showed 30% more success.

The level of interaction and cooperation between students has also increased significantly. The development of creativity and innovative thinking skills among students is associated with the interactivity of the teaching process, which in many cases was achieved through strengthening student interactions, group work, and project-based learning.

The above results prove the effectiveness of the variant-based approach in the educational process. Increasing student interaction and creativity ensures the effective implementation of

the educational process. While traditional teaching methods are more passive, in the variant-based approach, students have the opportunity to express their opinions and actively participate in the educational process. This, in turn, develops their independent thinking skills.

The results of the study show that the variation-based approach plays an important role in increasing student motivation and making the learning process interesting and effective. The results help to increase students' ability to self-assess and independently determine their own knowledge. Innovative methods used by teachers encourage students to discover their own abilities.

The results of the study strengthen the scientific basis for the use of a variation-based approach in the educational process. This study serves as a basis for research and implementation of new methods and strategies in education. The results obtained allow the development of new approaches and methods for teachers and educational institutions.

The study also provides guidance to teachers in implementing an individual approach to the educational process. The willingness of teachers to develop cooperation and use innovative methods is necessary to further improve the quality of education.

In practical terms, the research findings offer a number of practical recommendations for educational institutions and teachers. Teachers can develop sincere and open communication with students by using a variation-based approach in the educational process, increasing their creative skills. This, in turn, helps prepare students for success in modern life.

Educational institutions should also increase teachers' ability to use new methods and strategies by providing modern technologies and resources. Providing teachers with continuous professional development courses and training will create opportunities for them to learn and put new methods into practice.

The results of the study prove the effectiveness of teaching students a variant approach to the educational process and help improve the quality of the educational process. The results obtained are of great importance in developing interaction and creativity among students. Their scientific and practical significance serves to improve the education system and develop new approaches and strategies aimed at preparing students for success in modern life. Thus, the results of the study open the way for innovative changes and new opportunities in the field of education.

## **Conclusion**

The integration of design approaches and variational methods in the educational process plays an important role in increasing the effectiveness of the education system. Project-based organization of educational activities allows students to independently develop their thinking, apply creative approaches, and form practical skills. Variational methods, on the other hand, adapt the educational process to the individual characteristics and needs of students. Integrated

approaches, combining various methods and techniques, make the process of thinking and learning of students more effective. This, in turn, develops students' abilities to think independently, be creative, and make innovative decisions. Therefore, the integration of design approaches and variational methods is an important factor in implementing qualitative changes in education.

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