

EFFECTIVENESS OF DIFFERENTIAL AND ADAPTIVE TECHNIQUES IN AN INCLUSIVE EDUCATION ENVIRONMENT

Shamsiddinova Adiba Muzaffar kizi

NamDU independent researcher

Annotation: *In this scientific article, the pedagogical effectiveness of differential and Adaptive Methods in the environment of inclusive education is analyzed scientifically-theoretically and practically. In the modern educational system, it is becoming important to take into account the individual needs of all students, especially supporting children with a special educational need. For this reason, differential and adaptive educational methods are considered as one of the main tools of inclusive pedagogy. During the study, the essence of differential and Adaptive Methods, their role in inclusive education, pedagogical capabilities and their impact on the academic and social development of students were studied.*

Keywords: *inclusive education, differential education, Adaptive Methods, individual approach, pedagogical technologies, children with special needs, educational efficiency, innovative pedagogy.*

Introduction

In the context of today's globalization and digital transformation, new tasks are being set before the educational system. One of the main goals of modern pedagogy is to create quality and equal educational opportunities for all students. In this context, the concept of inclusive education is developing as a priority in the world education system. Inclusive education provides for the joint education of all children, including students with special educational needs, in general educational institutions [1].

Special attention was paid to the development of inclusive education in the Republic of Uzbekistan and the "concept of development of inclusive education in the public education system in 2020-2025" was adopted [13]. On the basis of this concept, great importance is attached to the issues of an individualized model of Education, a differential approach and the application of adaptive techniques.

Due to the different capabilities, needs and abilities of all students in an inclusive education environment, organizing the educational process on the basis of the same method does not give an effective result. Therefore, the use of differential and adaptive techniques is becoming a pedagogical necessity. While differential education implies the organization of education in accordance with the individual characteristics of students, Adaptive Methods provide for the adaptation of the educational process to the needs and level of development of the student [6].

The relevance of the study is determined by the need to scientifically substantiate the effectiveness of differential and Adaptive Methods in the process of inclusive education and to put them into practice.

Review of thematic literature

Issues of inclusive education and an individual approach have become one of the most relevant areas of pedagogical science in recent years. Many scientific studies have been conducted on the effectiveness of differential and adaptive techniques in World pedagogy.

UNESCO studies emphasize the need for individualization of education and the use of flexible pedagogical techniques as one of the basic principles of inclusive education [1]. Researchers note that differential methods serve to develop students' individual abilities.

UNICEF reports have shown that adaptive learning technologies are an effective tool in increasing social adaptation and academic activity of students with special needs [2].

J. Dewey justified the need to organize education based on the individual experience of the Student [3]. The scientist believes that pedagogical methods are effective only if they are adapted to the interests and needs of students.

L.S. Vygotsky's theory of the "zone of near Development" is also considered one of the methodological foundations of differential education [5]. According to him, each student has an individual level of development, and pedagogical assistance must be adapted to this level.

A.V. In his research on modern didactics, khutorskoy evaluates adaptive pedagogical technologies as an important tool that improves educational effectiveness [6]. The author lists differential assignments, individual training trajectories, and adaptive assessment systems as important components of inclusive education.

The effectiveness of differential methods in inclusive education has also been researched by local scientists. Siddikov and Boymirzayeva were the founders of the positive impact of innovative methods on the development of students with special needs [7].

Kholmominova and Abdisamatova study the theoretical-methodological foundations of inclusive education, arguing that the differential approach is an important factor in improving the quality of Education [8].

Turayev and Sherovas scientifically substantiated the importance of using adaptive techniques in preparing future educators for an inclusive educational environment [9].

Literature analysis shows that differential and Adaptive Methods are important pedagogical tools in improving the effectiveness of inclusive education. However, it

is necessary to continue research on the improvement of their practical application and methodological mechanisms.

Research methodology

In this study, theoretical and empirical methods of scientific knowledge were used. The methodological basis of the study was the competency approach, the principles of personality-oriented education and inclusive pedagogy.

The following techniques were used during the study:

- * analysis of scientific and pedagogical literature;
- * pedagogical observation;
- * comparative analysis;
- * monitoring;
- * interview and questionnaire methods;
- * summarizing the results.

As an object of research, the pedagogical process in inclusive educational institutions was chosen. And the subject of the study was calculated the effect of differential and Adaptive Methods on educational effectiveness.

During the research process, the level of knowledge, social activity and communicative competencies of students were monitored. Adaptive assignments, individual educational maps, and differential assessment systems were used.

The results showed that differential and adaptive techniques increase student acquisition performance, increase classroom activity, and improve psychological adaptation.

Main part

Differential education is the organization of the educational process taking into account the individual abilities, needs and level of development of students. In inclusive education, the differential approach serves to provide equal opportunity for all students.

The main advantages of differential techniques include:

- * provides an individual approach;
- * increases student motivation;
- * improves the level of knowledge acquisition;
- * enhances social integration.

Adaptive Methods provide for the adaptation of educational content and methods to the needs of students. Adaptive education technologies are especially effective when working with children with special needs.

In inclusive education, the following Adaptive Methods are effective:

1. Individual study plans;
2. Use of visual and audio materials;
3. Flexible assessment system;
4. Interactive technologies;

5. Multimedia tools.

According to the results of the study, the following positive results were observed in classes using differential and adaptive techniques:

- * increased student activity in the classroom;
- * improved level of knowledge acquisition;
- communicative skills developed;
- * increased psychological adaptation;
- independent work skills were formed.

Professional competence and reflexive activities of educators also developed.

Conclusions and recommendations

The results of the study showed that the use of differential and adaptive techniques in an inclusive education environment significantly increases educational effectiveness. These methods are important in taking into account the individual needs of students, expanding their opportunities for learning and ensuring their social integration.

The use of differential and adaptive techniques in inclusive education creates the following possibilities:

- * individualization of Education;
- * increased academic activity of students;
- social adaptation of children with special needs;
- * flexibility of the pedagogical process.

Based on the study, the following recommendations were developed:

1. Regular use of differential methods in inclusive educational institutions;
2. Retraining educators on adaptive technologies;
3. Development of Individual educational programs;
4. Extensive use of interactive and multimedia Tools;
5. Implementation of an adaptive assessment system.

In conclusion, differential and Adaptive Methods are an important pedagogical tool that increases the effectiveness of inclusive education.

LIST OF LITERATURE USED:

1. UNESCO. Inclusive Education: Ensuring Access to Education for all. - Paris: UNESCO Publishing, 2020.
2. UNICEF. The State of the world's Children. - New York: UNICEF, 2021.
3. Dewey J. Democracy and Education. - New York: Macmillan, 2015.
4. The decision of the president of the Republic of Uzbekistan "on approval of the concept of development of inclusive education in the public education system in 2020-2025". - Tashkent, 2020.
5. Vygotsky L.S. Pedagogical psychology. - Moscow: Prosvesheniye, 2018.

6. Khutorskoy A.V. Sovremennaya didactica. - Moscow: Peter, 2019.
7. Turayev Y.Sh., Sherova G.X. Technology of preparation of future educators for professional activities in an inclusive educational environment // Uzbek Scholar Journal. - 2026. - №50. - B. 18-22.
8. Kholmominova O.J., Abdisamatova M.A. Theoretical-methodological foundations of Inclusive Education // Conference of Modern Science & Pedagogy. - 2025. - №9. - B. 40-48.