JOURNAL OF MULTIDISCIPLINARY SCIENCES AND INNOVATIONS

VOLUME 5, ISSUE 04
MONTHLY JOURNALS

ISSN NUMBER: 2751-4390
IMPACT FACTOR: 9,08

MODERN EDUCATIONAL METHODS

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Abstract: The article describes the methodology for using artificial intelligence–based educational platforms, interactive programs, and mobile applications, as well as the methods of integrating them into the teaching process and innovative approaches applied in teaching addition and subtraction. Furthermore, the study broadly examines the creation of adapted tasks that take into account students' individual characteristics, along with the opportunities for rapid analysis and assessment within the learning process.

Keywords. Artificial Intelligence (AI), Primary Education, Interactive Methods, Digital Education, Adaptive Learning, Individualized Approach, Educational Technologies, Learning Motivation, Innovative Methodology, Mobile Applications, Electronic Platforms, Mathematical Literacy.

Introduction

In the modern educational process, digital platforms and mobile applications are widely used as important didactic tools. Particularly in primary school mathematics lessons, these technologies help organize the learning process in an effective, engaging, and interactive way. With their help, it becomes possible to actively involve students in lessons and to present complex concepts in a simple and understandable manner.

One of the main didactic opportunities of digital platforms is interactivity. Through various animations, games, tests, and visual exercises, students can reinforce their knowledge. For example, when teaching addition and subtraction operations, the use of colorful images, moving objects, and audio explanations helps students understand the topic more easily. This approach attracts students' attention and increases their interest in learning.

In addition, digital tools play an important role in organizing individualized learning. Educational platforms analyze the student's level of knowledge and offer tasks appropriate to their abilities. As a result, each student works according to their own capacity: high-achieving students complete more complex tasks, while those experiencing difficulties strengthen their knowledge through simpler exercises.

The use of interactive teaching methods in primary school mathematics lessons is one of the most important factors in improving the effectiveness of education. These methods transform students from passive listeners into active participants and develop their independent thinking, problem-solving, and communication skills. In particular, interactive approaches in teaching addition and subtraction help students understand the topic more deeply and apply it in practice.

Litrature analysis and methodology

In primary education, game-based methods are particularly effective. Mathematical games, quizzes, and role-playing activities allow addition and subtraction operations to be taught in an

engaging manner. This increases students' interest in the lesson and encourages their active participation. Knowledge presented through game elements tends to remain longer in students' memory.

In modern education, interactive teaching methods are increasingly integrated with artificial intelligence technologies, creating new didactic opportunities. In particular, the "AI-assisted task generation" method enables teachers to develop tasks of different levels and tailored to individual characteristics in a short time. Through this method, examples, problems, and tests related to addition and subtraction can be generated automatically, which facilitates lesson planning and improves its quality.

Furthermore, the "gamification" method is an important component of the system of interactive methods. This method incorporates game elements such as scoring points, progressing through levels, rankings, and rewards. As a result, students' intrinsic motivation increases, and they perceive the learning process as an engaging activity. Especially for primary school students, this method is highly effective in maintaining their attention for longer periods. Furthermore, the "adaptive exercises" method is also of great importance. This method operates on the basis of artificial intelligence and automatically adjusts tasks according to the learner's level of knowledge. If a student makes a mistake, the system provides additional explanations and simpler exercises. Conversely, students who successfully complete the tasks are offered more complex assignments. This approach ensures the individual development of each learner and leads to a more solid mastery of knowledge.

Through the system of interactive methods, students develop not only mathematical knowledge but also essential life skills. They learn to communicate, work collaboratively, express their ideas freely, and make appropriate decisions in problem situations. At the same time, the role of the teacher also changes: rather than being merely a provider of knowledge, the teacher acts as an organizer and facilitator of the learning process.

In the modern educational process, the use of artificial intelligence (AI) technologies represents an innovative approach aimed at developing appropriate, effective, and engaging learning tasks for students. Particularly in primary school mathematics lessons, this method has significant didactic importance in teaching addition and subtraction operations and contributes to the deep and lasting acquisition of knowledge.

The essence of this method lies in the fact that artificial intelligence programs analyze students' level of knowledge, errors, learning pace, and individual characteristics, and on this basis automatically generate tasks suited to their needs. For example, when learning addition and subtraction operations, students are first provided with simple exercises and later progress to more complex problems. This approach helps students acquire knowledge step by step.

One of the key advantages of this method is that it ensures an individualized approach. Since each student receives tasks appropriate to their abilities, high-achieving students can further develop their knowledge, while those experiencing difficulties are not left behind. As a result, all students in the class have the opportunity to progress at a balanced pace.

In addition, this method facilitates the teacher's work and saves time. Instead of manually preparing numerous assignments, teachers can use artificial intelligence to generate high-quality exercises of varying levels in a short time. This contributes to the effective organization of lessons and enriches them from a methodological perspective.

Moreover, tasks created with the help of artificial intelligence allow for rapid assessment and analysis. Once a student completes a task, the result is immediately determined and errors are identified. This helps students develop self-monitoring skills and the ability to work on their mistakes.

Another important aspect is that this method can be enriched with interactive and game-based elements. Various engaging tasks, visual materials, and motivational elements increase students' interest in the lesson and encourage them to participate actively in the learning process.

Conclusion

In conclusion, the system of interactive methods integrated with artificial intelligence technologies significantly increases the effectiveness of primary school mathematics lessons. This approach enhances students' engagement, raises their interest, and supports the deep and lasting acquisition of knowledge. The creation of tasks using artificial intelligence, as an innovative approach in primary school mathematics education, offers broad opportunities to support students' individual development, improve lesson effectiveness, and elevate the quality of education to a new level.

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