

Formation of A Creative Educational Environment in Primary Classes and The Importance of Learning Materials

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Abstract: This article analyzes the process of forming a creative educational environment in primary school classes from a scientific perspective. In today's digital era, the introduction of artificial intelligence (AI) technologies is fundamentally changing the content, form, and methods of using learning materials. The article presents the characteristics of modern learning materials, interactive platforms, gamification, and the importance of the STEAM approach for students in grades 1–4. It also highlights the possibilities of developing individualized learning through AI technologies, forming students' creative and critical thinking skills, and supporting teachers' methodological activities. The article is aimed at ensuring students' personal development through the effective use of innovative and interactive learning materials in primary education.

Keywords: Primary education, creative learning environment, learning materials, artificial intelligence, STEAM, gamification, interactive learning.

Introduction: Primary education and the formation of a creative learning environment are considered one of the priority directions of the education system in today's digital transformation conditions. The widespread introduction of modern information and communication technologies, digital platforms, and artificial intelligence tools into the educational process is fundamentally changing the content, structure, and presentation methods of learning materials. As a result, the educational process is moving from a traditional knowledge transmission model to a creative and innovative model focused on the comprehensive development of the learner's personality. In such conditions, the creative learning environment becomes an important pedagogical factor in increasing students' interest in learning, developing independent thinking, and revealing creative potential.

Since primary school students have specific psychological and physiological characteristics, it is important to consider their age-related capabilities when organizing a creative learning environment. At

this age, children show high curiosity, active imagination and fantasy, a strong desire for novelty, and imitation tendencies. Therefore, the learning materials used in the educational process should correspond to children's natural interests, encourage active participation, and stimulate creative thinking. A creative environment serves to reveal these opportunities and supports the intellectual and personal development of students.

In primary classes, learning materials serve not only as a source of knowledge but also as a tool for increasing students' motivation, positively influencing their emotional state, and strengthening their interest in the learning process. In particular, colorful illustrations, interesting stories, interactive tasks, didactic games, and practical activities help maintain students' attention for a long time. Such materials transform students from passive listeners into active participants and create conditions for independent acquisition of knowledge.

In grades 1–2, it is especially important to use game-

based, visual, and illustrative materials in creating a creative learning environment. Since students at this stage think more in an imaginative way, learning through pictures, animations, videos, constructive games, and interesting tasks is more effective. A learning process enriched with game elements creates positive emotions in students and strengthens their learning motivation. At the same time, various creative activities such as drawing, modeling, and storytelling help develop children's imagination and creative thinking.

In grades 3–4, students' cognitive activity becomes more complex, and elements of logical thinking begin to develop actively. Therefore, in a creative learning environment, it is appropriate to use problem-based tasks, small research projects, project-based learning activities, interdisciplinary exercises, and creative problem-solving tasks. Such tasks develop students' skills of identifying cause-and-effect relationships, analyzing information, comparing, and generalizing. As a result, students develop independent thinking, critical thinking, and innovative idea generation competencies.

In recent years, the integration of artificial intelligence technologies into the education system has been forming a new model of the creative learning environment. Adaptive learning systems make it possible to identify students' individual learning needs and provide differentiated tasks. According to research results, the use of artificial intelligence tools has a positive effect on increasing students' independent learning activity and creative thinking skills.

Thus, forming a creative learning environment in primary education requires selecting learning materials that take into account students' age and individual characteristics. In grades 1–2, game-based and visual materials, and in grades 3–4, tasks focused on logical thinking and problem situations should be used to develop students' creative potential. A creative learning environment enriched with modern digital technologies and artificial intelligence serves as an important factor in improving educational quality, developing independent thinking, and forming innovative competencies.

Characteristics of modern learning materials

Modern primary school learning materials differ from traditional textbooks in several aspects:

- Interactivity – students are not limited to reading texts but actively participate through tasks, quizzes, digital games, and simulations.

- Visual richness – colorful images, diagrams, animations, and video materials make the lesson content easier to understand.

- Individual approach – using AI technologies, materials are adapted to each student's level of knowledge. For example, task difficulty automatically changes, and additional recommendations and support are provided.

- Gamification – game elements, point systems, and virtual rewards increase students' motivation, making the learning process more interesting and effective in grades 1–4.

In the modern approach, learning materials for primary school students are enriched with interactive platforms, multimedia tools, digital games, and artificial intelligence (AI)-based adaptive learning systems. This approach reflects the technological transformation of education and contributes to shaping learners not as passive recipients of information but as active knowledge constructors. Through interactive platforms, students are able to complete tasks in real time, analyze their results, and identify their own mistakes, which enhances reflective learning.

One of the most significant advantages of AI-based educational systems is the adaptive learning model. In this model, algorithms analyze students' individual knowledge levels, learning speed, error patterns, and areas of interest, and then generate appropriately tailored tasks. As a result, a personalized learning path is created for each student. This ensures the effective implementation of differentiated instruction and supports the principles of inclusive education by addressing individual learning needs.

In addition, multimedia tools such as animations, audio-visual materials, virtual laboratories, and simulations enhance students' sensory perception of information. This reduces cognitive load and facilitates the understanding of complex concepts in a simplified and visual form. Digital games and gamification elements further enrich the learning process from a motivational perspective, fostering intrinsic motivation among students and encouraging active participation in lessons.

For primary school learners, the main function of

learning materials in a creative educational environment is to actively engage students in the learning process, increase their cognitive activity, and gradually develop independent thinking competencies. This age period represents a crucial stage of psychological development, where imagination, emotional perception, and imitation play dominant roles. Therefore, learning materials must be adapted to the natural developmental characteristics of children.

At the Grade 1 level, the learning process is mainly based on visual and imaginative thinking. Therefore, fairy tales, illustrated stories, multimedia presentations, short videos, and simple didactic games are highly effective in delivering knowledge. Such an approach helps form a positive emotional attitude toward learning, develops attention span, and strengthens initial learning motivation.

In Grades 2–3, students' thinking gradually shifts toward logical and analytical processes. Accordingly, learning materials become more complex and are enriched with role-playing activities, small projects, problem-based questions, group collaborative tasks, and elements of inquiry-based learning. At this stage, communicative competence, teamwork skills, and social adaptation processes are actively developed.

By Grade 4, students begin to demonstrate higher levels of independent thinking, analysis, and reasoning. Therefore, it is effective to engage them in small research projects, project-based learning activities, problem-solving tasks, creative writing assignments, and tasks aimed at developing critical thinking. These activities foster higher-order cognitive skills such as analysis, synthesis, evaluation, and creativity.

Moreover, within a creative learning environment, learning materials are regarded not only as tools for knowledge transmission but also as pedagogical instruments for personal development. They contribute to students' emotional and intellectual growth, socialization processes, and the formation of innovative thinking skills. As a result, learners not only acquire ready-made knowledge but also develop the ability to apply it in real-life situations, generate new ideas, and adopt creative approaches to problem-solving.

The main purpose of learning materials in a creative learning environment for primary school students is to engage them in learning and teach them independent

thinking. For example, in grade 1, fairy tales, illustrated stories, and simple games are used, while in grades 2–3, role-playing games, small projects, and group work are emphasized. In grade 4, involving students in small research activities, problem-based tasks, and creative writing assignments is considered effective.

Gamification elements are also very important in primary education. Learning through games increases students' motivation and encourages active participation in lessons. AI-based game platforms analyze students' results, provide individual recommendations, and help organize the learning process more effectively.

Learning materials also contribute to the development of students' communicative and social skills. Through group work, pair activities, and discussions, students learn to express their ideas freely, listen to others' opinions, and work collaboratively. This is very important for their personal and social development.

In modern learning materials, the STEAM (Science, Technology, Engineering, Art, Mathematics) approach is widely used. In primary education, this approach enables students to integrate subjects and solve real-life problems. For example, in grades 3–4, through small project work, students learn to apply mathematics, natural science, and creativity simultaneously in practice.

The teacher plays a key role in creating a creative learning environment in primary classes. He or she must properly use modern learning materials and organize the learning process in an engaging and effective way. Artificial intelligence technologies provide significant support to teachers in lesson planning, task preparation, and analyzing student performance.

CONCLUSION

In conclusion, learning materials and modern technologies, especially artificial intelligence, play an important role in forming a creative learning environment in primary education. They help provide age-appropriate learning, develop creative thinking, and improve educational effectiveness. Therefore, the wide use of innovative and interactive learning materials in primary education is one of the urgent tasks of today.

REFERENCES

1. OECD. (2010). Inspired by Technology, Driven by Pedagogy: A Systemic Approach to Technology-Based School Innovations. OECD Publishing, Paris.
2. Groff, J. S. (2013). Technology-Rich Innovative Learning Environments. OECD-CERI Technical Report.
3. Johnson, L., Adams Becker, S., Estrada, V., & Freeman, A. (2016). The NMC Horizon Report: 2016 K–12 Edition. The New Media Consortium.
4. Mishra, P., & Koehler, M. J. (2016). Technological Pedagogical Content Knowledge: A framework for teacher knowledge. Teachers College Record, 108(6), 1017–1054.
5. Burns, T., & Gottschalk, F. (Eds.). (2020). Education in the Digital Age: Healthy and Happy Children. OECD Publishing.
6. Abdullayeva U.T. Advantages Of Using Information Technologies In Primary Grades // “Pedagogical Cluster- Journal of Pedagogical Developments”. 2024. - 2-son. - B 237-241.
7. U.T.Abdullayeva Ta’lim tizimida raqamli texnologiyalardan foydalanish va amalga oshirilayotgan ishlar // “Raqamli iqtisodiyot va sun’iy intellekt texnologiyalarining jamiyat rivojlanishidagi ahamiyati” mavzusidagi xalqaro ilmiy amaliy konferensiya.-2024. 22-noyabr, – B 1243-1248.