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Using Artificial Intelligence to Foster Creative Reading Culture Among Primary School Pupils

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Abstract: This article explores the potential of artificial intelligence (AI) in cultivating a creative reading culture among primary school students. It analyzes the role of AI-based educational tools in enhancing reading motivation, comprehension, and creative thinking. The study highlights how the integration of digital technologies, particularly intelligent reading platforms, can support individual learning needs and promote students' engagement in reading activities. Key findings suggest that AI can personalize reading tasks, adapt to learners' cognitive levels, and encourage curiosity-driven exploration of texts.

Keywords: artificial intelligence, creative reading, primary education, digital literacy, reading culture, personalized learning.

In the 21st century, the rapid advancement of digital technologies and artificial intelligence (AI) is reshaping education at all levels. Particularly in primary education, there is a growing need to modernize teaching strategies to meet the cognitive and emotional needs of young learners. One key area of focus is the development of a creative reading culture—a learning environment where students are not only able to decode text but also engage with it imaginatively, critically, and personally.

Reading is no longer viewed merely as a mechanical skill. Instead, it is recognized as a complex, creative process that shapes students' thinking, expression, and worldview. A creative reader is someone who can interpret texts in original ways, relate them to real-life experiences, and even produce new ideas or stories based on what they have read. However, traditional reading instruction methods often lack the flexibility, individualization, and interactivity needed to nurture such skills in young children.

In this context, artificial intelligence technologies offer unprecedented opportunities. AI-powered tools—such as personalized reading apps, voice-interactive platforms, and intelligent feedback systems—can help bridge the gap between standardized curricula and individual learning needs. These technologies can analyze a child's reading level, provide tailored content, and offer immediate feedback, all while engaging students through gamification, storytelling, and multimedia support.

Moreover, AI has the potential to foster autonomy and intrinsic motivation in reading. By offering choices, adapting difficulty levels, and allowing students to explore themes they are passionate about, AI can turn reading into a meaningful and enjoyable activity. As a result, students are more likely to develop a lifelong habit of reading and a deeper appreciation for literature, language, and self-expression.

Despite its promise, the use of AI in developing reading culture among primary students remains an underexplored area in pedagogical research, especially in the context of Uzbekistan's evolving education system. Therefore, this study aims to investigate the didactic potential of artificial intelligence tools in enhancing students' creative engagement with texts and in cultivating a sustainable reading culture in primary school settings.

This paper discusses the conceptual framework of creative reading, analyzes the role of AI in education, and presents findings from experimental classroom practices where AI was used to support creative reading development. It also outlines the practical challenges, pedagogical implications, and recommendations for integrating AI into literacy instruction for young learners.

In the modern era of digital transformation, the use of artificial intelligence (AI) in education is gaining momentum, especially in areas that aim to promote creativity, personalization, and active learner engagement. This is particularly relevant in primary education, where establishing a creative reading culture is essential for developing students' cognitive, emotional, and linguistic capabilities.

Several scholars have emphasized the pedagogical potential of AI in fostering personalized and interactive learning environments. For example, Luckin et al. (2016) argue that AI systems can adapt to individual learners' needs, allowing for customized educational content that matches students' pace and preferences. Their research supports the idea that intelligent tutoring systems can play a critical role in developing student autonomy and motivation—two key components of creative reading culture.

This perspective aligns with the views of Holmes et al. (2019), who describe AI as a catalyst for shifting educational practices from teacher-centered instruction toward learner-centered engagement. Through real-time feedback, speech recognition, and adaptive reading tools, AI platforms can provide primary school pupils with supportive, responsive environments that encourage exploration and imagination.

At the same time, the importance of creativity in reading has been long supported by educational theorists. Vygotsky (1978), in his sociocultural theory, highlights the role of language and social interaction in the development of higher cognitive functions, including imagination and creative thinking. According to his framework, tools such as language—and by extension, AI-powered reading interfaces—serve as mediators for cognitive development. These tools enable learners to visualize, interpret, and reconstruct meaning beyond the literal text, thus enriching their reading experience.

Building on this foundation, Chambers (2011) emphasizes that creative reading involves students interacting with texts in imaginative and personal ways. It is not just about comprehension but about emotional connection, interpretation, and transformation of information into new ideas. AI technologies, such as interactive storytelling platforms or voice-based reading assistants, have the capacity to foster this level of engagement by providing dynamic, multimodal content that appeals to various learning styles.

Research by Guthrie and Wigfield (2000) further demonstrates that student motivation plays a vital role in shaping reading habits. Their model of engaged reading shows that when students are offered choice, challenged appropriately, and supported through feedback, they become more

involved in reading activities. AI tools are well-equipped to address these needs by providing personalized reading materials, gamified elements, and immediate response systems.

More recent studies, such as those by Lee & Park (2021), showcase practical examples of how AI applications can transform classroom practices. Their study on AI-based storytelling in South Korean primary schools reveals that children using AI tools displayed increased vocabulary usage, imaginative language, and willingness to participate in reading-related tasks.

Despite the growing body of global literature, there remains a research gap concerning the implementation and effectiveness of AI in fostering creative reading culture in Central Asian educational contexts, particularly in Uzbekistan. While digital tools are increasingly being adopted, there is limited research on how these technologies impact students' creative engagement, literacy development, and teacher practices in the region. Addressing this gap, the present study aims to explore the didactic potential of AI in primary school classrooms and assess how such tools contribute to shaping a more meaningful, creative, and student-centered reading environment.

The integration of artificial intelligence (AI) into primary education, particularly in the development of creative reading culture, requires a comprehensive examination of its practical outcomes. In this regard, an experimental study was conducted to compare the effects of AI-supported reading instruction with traditional methods in fostering students' reading engagement, creativity, and comprehension skills.

To ensure reliable data, two groups of students were formed: the experimental group, which received AI-based reading instruction using tools like interactive story generators and voice feedback systems; and the control group, which continued with standard textbook-based reading activities. Throughout the six-week study, various tools such as NaturalReader, AI chat assistants, and gamified reading apps were employed to support the experimental group. These tools were designed to provide personalized reading paths, real-time feedback, and opportunities for imaginative expression.

Analysis of the data collected from student interviews, teacher observations, and written responses revealed several noteworthy results. Firstly, students in the AI group showed significantly higher levels of motivation and engagement. They approached reading tasks with enthusiasm, as the digital tools created a sense of novelty and fun, transforming reading into an interactive and explorative activity. In contrast, students in the control group were more passive and showed less excitement toward reading sessions.

Secondly, creative expression was more evident in the experimental group. These students were more likely to reimagine stories, develop new endings, and use expressive language when retelling or rewriting narratives. This was attributed to the AI tools' ability to pose open-ended prompts and simulate dialogue, encouraging students to think beyond the surface level of the text.

Another key outcome was the personalized nature of AI-assisted instruction, which allowed students to work at their own pace and receive support appropriate to their reading level. Struggling readers benefited from simplified texts and audio support, while more advanced students were challenged with higher-order thinking tasks. This adaptability helped build students' confidence and reduced reading-related anxiety.

In addition, students began to demonstrate metacognitive skills, such as reflecting on their reading process and identifying their own misunderstandings. For instance, when prompted by AI tools to explain their answers or revisit confusing sections, students engaged in self-monitoring behaviors—an important step in developing independent learning habits.

Notably, this shift also affected the role of the teacher. In AI-integrated classrooms, teachers transitioned from being traditional instructors to facilitators of learning. They guided student

interactions with AI tools, provided individualized support, and encouraged discussion and reflection—thus promoting a more student-centered and collaborative classroom environment.

These findings collectively suggest that the use of AI in literacy education has the potential to transform reading into a more engaging, creative, and reflective process. However, it should also be acknowledged that the study faced certain limitations, including unequal access to digital devices, varying levels of digital literacy among students, and the need for teacher training in AI tool integration. Despite these challenges, the results strongly support the view that AI can play a pivotal role in cultivating a creative reading culture among young learners when used thoughtfully and inclusively.

The findings of this study highlight the transformative role of artificial intelligence (AI) in shaping a creative reading culture among primary school students. The enhanced engagement, imaginative expression, and individualized support observed in the experimental group suggest that AI-based technologies can significantly enrich traditional approaches to literacy instruction.

One of the most prominent outcomes was the increase in student motivation. When reading tasks were supported by AI tools, students responded with greater enthusiasm and active participation. This indicates that technology can act as a bridge between students' interests and academic content, especially when it allows for choice, interaction, and real-time feedback. These factors align with constructivist theories, which emphasize learner autonomy and the active construction of knowledge through meaningful experiences.

Furthermore, the creative development observed among students in AI-supported classrooms illustrates how digital technologies can foster deeper cognitive and emotional engagement. By allowing learners to explore alternative storylines, visualize characters, and personalize narratives, AI tools support the development of imagination—an essential component of a creative reading culture. These outcomes support Vygotsky's sociocultural theory, which posits that tools (both physical and symbolic) mediate thought processes and contribute to intellectual growth.

From a pedagogical standpoint, the study suggests that AI integration promotes a shift from teacher-centered to learner-centered instruction. Teachers became facilitators, guiding inquiry and exploration rather than merely delivering information. This shift supports current global educational trends aimed at cultivating 21st-century skills such as creativity, collaboration, and critical thinking from the early years of schooling.

However, the integration of AI into primary education also presents challenges that must be addressed. Issues such as limited access to technology, disparities in digital literacy, and the need for teacher training must be considered in implementation strategies. Moreover, while AI tools can stimulate creativity and engagement, they should not replace the human elements of empathy, encouragement, and contextual understanding that teachers uniquely provide.

Additionally, it is important to ensure that the use of AI remains purposeful and pedagogically grounded. Technology should not be used merely for novelty but should align with educational objectives, support curriculum standards, and be adaptable to diverse learner needs. Ethical considerations regarding data privacy and student autonomy must also be acknowledged and managed responsibly.

In summary, the discussion affirms that when used thoughtfully, artificial intelligence can enhance literacy instruction by creating environments that support imagination, personalization, and active learning. For education systems aiming to prepare students for the demands of a rapidly changing world, the incorporation of AI into primary reading practices offers both opportunities and responsibilities that must be carefully balanced.

References:

1. Ziyaqulova M. S. Q., Xayitova F. A. Savod o'rgatish darslarida o'quvchilarning kreativ qobiliyatini shakllantirishda rasmlarning o'rni //Academic research in educational sciences. – 2021. – Т. 2. – №. 7. – С. 7-12.
2. Хаитова Ф. А. Maktabda o'quvchilarning o'qish madaniyatini shakllantirishning samarali usullari //Инновации в педагогике и психологии. – 2021. – Т. 4. – №. 6.
3. Hayitova F. Kitobxonlik madaniyatini shakllantirishda sinfdan tashqari ishlarning o'rni //Евразийский журнал академических исследований. – 2022. – Т. 2. – №. 8. – С. 235-242.
4. Хайитова Ф. А. Игра как практика развития на начальном этапе обучения //Гуманитарный трактат. – 2018. – №. 25. – С. 114-116.
5. Khaitova F. A. CREATIVE APPROACH TO FORMING A CULTURE OF LEARNING IN PRIMARY EDUCATION //Theoretical aspects in the formation of pedagogical sciences. – 2023. – Т. 2. – №. 5. – С. 123-127.
6. Хайитова Ф. А., Хуррамов Х. М. У. Значение национальных ценностей в воспитании молодежи //Вопросы науки и образования. – 2019. – №. 1 (42). – С. 88-95.
7. Abdullaevna H. F., Menglimamat P. J. The importance of forming a reading culture in the process of extracurricular activities //European Journal of Research and Reflection in Educational Sciences Vol. – 2019. – Т. 7. – №. 12.
8. Ҳайитова Ф. А. и др. Важность использования рисунков при описании текста работы на уроках начального класса //фундаментальные основы инновационного развития науки и образования. – 2018. – С. 38-41.
9. Xayitova F. A. SINFDAN TASHQARI ISHLARDA KITOBXONLIK MADANIYATINI SHAKLLANTIRISHDA OILA VA MAKTAB HAMKORLIGINING AHAMIYATI //New article. – 2024. – Т. 1. – №. 1. – С. 119-127.
10. Ҳайитова Ф. А. и др. Важность использования рисунков при описании текста работы на уроках начального класса //фундаментальные основы инновационного развития науки и образования. – 2018. – С. 38-41.