



EFFECTIVE USE OF AI-BASED PLATFORMS IN PRIMARY MOTHER TONGUE LESSONS

Khazratova S.Sh.

Master's student, Asia International University

<https://doi.org/10.5281/zenodo.18439846>

ARTICLE INFO

Received: 27st January 2026

Accepted: 28th January 2026

Online: 29th January 2026

KEYWORDS

mother tongue instruction, primary school education, digital learning platforms, artificial intelligence in education, language skills development, interactive learning

ABSTRACT

This article examines methodological approaches to the effective use of digital and artificial intelligence-based learning platforms in primary school mother tongue lessons. The study emphasizes the importance of adapting interactive and adaptive technologies to the cognitive, psychological, and linguistic characteristics of young learners. It highlights how digital platforms can support the development of vocabulary, spelling, reading, and basic grammatical skills through game-based activities, instant feedback, and differentiated instruction. The article also discusses the pedagogical role of the teacher in integrating these platforms into the learning process while preserving the educational and cultural value of mother tongue instruction. The findings suggest that the thoughtful application of digital platforms enhances learner motivation, promotes independent learning, and contributes to the overall effectiveness of primary language education.

The rapid development of digital technologies and artificial intelligence (AI) has significantly transformed modern education systems, creating new opportunities for improving the quality and effectiveness of teaching and learning processes. In primary education, where the foundations of literacy, language competence, and cognitive development are formed, the integration of AI-based educational platforms is becoming increasingly relevant. Especially in mother tongue (native language) instruction, innovative digital tools can enhance pupils' engagement, motivation, and learning outcomes when applied through a well-structured pedagogical methodology.

Primary school learners possess specific psychological and cognitive characteristics, such as high curiosity, visual thinking, and a strong need for interactive and game-based learning. Traditional teaching methods in mother tongue lessons, which often rely on repetitive exercises and teacher-centered instruction, may not always address these developmental needs effectively. In this context, artificial intelligence-based educational platforms offer adaptive learning environments that can personalize content, provide instant feedback, and support differentiated instruction according to pupils' individual abilities and learning pace.

The effective use of AI-based platforms in mother tongue lessons allows teachers to organize learning activities that develop reading, writing, speaking, and listening skills in an

integrated manner. Through intelligent algorithms, such platforms can analyze pupils' errors, monitor their progress, and suggest appropriate tasks to reinforce language competence. Moreover, interactive exercises, voice recognition tools, and gamified elements contribute to the development of correct pronunciation, vocabulary enrichment, and grammatical awareness among primary school pupils.

However, the successful integration of artificial intelligence into mother tongue teaching does not depend solely on technological availability. It requires a scientifically grounded methodological approach that aligns digital tools with pedagogical objectives, age-specific characteristics of learners, and national educational standards. Teachers must be equipped with methodological guidelines that explain how to select, adapt, and implement AI-based platforms in classroom practice while maintaining the educational and moral values embedded in mother tongue instruction. Therefore, the topic of developing an effective methodology for using artificial intelligence-based educational platforms in primary school mother tongue lessons is of particular importance. This study aims to explore pedagogical principles, methodological conditions, and practical strategies for integrating AI technologies into native language teaching, ensuring both educational effectiveness and the holistic development of young learners.

AI-based educational platforms can be effectively integrated into primary mother tongue lessons through a carefully planned and pedagogically grounded approach that supports pupils' cognitive and linguistic development. At the initial stage of a lesson, such platforms may be used to identify pupils' prior knowledge through short interactive tasks related to sounds, letters, or basic spelling patterns. Based on pupils' responses, the system adapts the level of difficulty and offers tasks appropriate to each learner's abilities. For example, during a lesson on phonics or syllable structure, pupils may be asked to choose correct word forms, complete missing letters, or identify sounds within simple words. Immediate feedback provided by the platform helps pupils understand their mistakes and reinforces language rules in a clear and accessible way. This process enables differentiated instruction, ensuring that both high-achieving and struggling pupils actively participate in the learning process while maintaining their motivation and interest.

Furthermore, AI-based platforms contribute to the development of reading, writing, and vocabulary skills through interactive and engaging learning activities that align with the age characteristics of primary school pupils. In reading lessons, pupils can work with short texts accompanied by images and audio support, allowing them to practice reading fluency and comprehension at their own pace. Some platforms offer speech recognition features that assist pupils in improving pronunciation by identifying incorrect sounds and encouraging repeated practice. In vocabulary lessons, adaptive digital exercises present new words in meaningful contexts, supported by visuals and simple sentences, which promotes long-term retention. For instance, after learning a short story, pupils may complete interactive tasks that require them to match words with pictures, choose appropriate words to complete sentences, or retell the content using guided prompts. Such activities foster independent learning, strengthen language competence, and support the effective implementation of artificial intelligence technologies in primary mother tongue education.

Digital learning platforms can be effectively adapted for use in mother tongue lessons when they are applied with clear pedagogical objectives and age-appropriate methods. Although many international platforms are originally designed for foreign language learning, their interactive and adaptive features allow teachers to use them successfully in primary school mother tongue instruction. The key factor is not the language of the platform itself, but the methodological approach through which learning tasks are organized and aligned with the content of the mother tongue curriculum.

In mother tongue lessons, platforms such as Quizlet can be used to develop pupils' vocabulary, spelling, and basic grammatical awareness. Teachers may create digital flashcards that include words, pictures, and short example sentences. Through repeated practice and game-based activities, pupils gradually memorize new words and learn to recognize correct spelling patterns. For example, during a lesson on word meanings, pupils can work independently or in pairs to match words with images or explanations. This method supports visual learning and helps young learners retain information more effectively than traditional memorization techniques.

Similarly, Duolingo-style learning models can be adapted to mother tongue instruction by using short, simple, and engaging exercises that focus on basic language skills. In early grades, such tasks may include choosing the correct word to complete a sentence, identifying words that match pictures, or listening to short phrases and repeating them aloud. These activities encourage active participation and allow pupils to learn through play, which is especially important in primary education. Immediate feedback provided by such platforms helps pupils understand their mistakes and reinforces language rules in a clear and motivating way.

Overall, the use of digital platforms in mother tongue lessons enhances learner motivation, supports differentiated instruction, and promotes independent learning. When applied thoughtfully, these tools help teachers create interactive and learner-centered lessons that strengthen pupils' language competence while preserving the educational and cultural value of mother tongue instruction.

References:

1. Ismoilova D. Mobile applications and mother tongue education. Tashkent: Tashkent State University Press. 2020
2. Qodirova S. Mobile technologies and teaching the mother tongue among young learners. Uzbekistan Journal of Pedagogy, 45(3), 78-85. 2019
3. Karimov A. Methodology of teaching the mother tongue through mobile applications. Tashkent: Publishing House of the Ministry of Education of the Republic of Uzbekistan. 2021
4. Tursunova M. Mobile technologies and cultural preservation: Opportunities in mother tongue teaching. Culture and History, 12(2), 55-62. 2018
5. Yusupova N. Mobile applications in the development of the mother tongue and their impact. Innovative Education, 7(1), 2022
6. Polat E. S. Pedagogical technologies in the modern educational process. Moscow: Academy Publishing Center. 2017
7. Khutorskoy A. V. Didactic foundations of learner-centered and digital education. Moscow: National Education Press. 2019