
The Theoretical Significance of Developing Reading and Text Comprehension Skills in Primary School Students Through Media Technologies

Qayumova Shoxsanam To'lqin qizi

Doctor of Philosophy in Pedagogical Sciences (PhD)

Xursanbekova Gulnavoz Mansurali qizi

Master's Student in Gulistan State Pedagogical Institute

Article information:

Manuscript received: 02 Oct 2025; **Accepted:** 02 Nov 2025; **Published:** 16 Dec 2025

Abstract: This article explores the theoretical aspects of integrating media technologies into the development of reading and text comprehension skills among primary school students. The study analyzes the psychological and pedagogical foundations of media resources, modern approaches to digital education, and the scientific role of multimodal tools in shaping reading literacy. The significance of international studies such as PIRLS, PISA, and OECD assessments for primary education is also examined. Furthermore, the article substantiates the methodological potential of media technologies in enhancing learners' abilities to comprehend, analyze, interpret, communicate, and think creatively about textual content.

Keys words: reading literacy, text comprehension, media technologies, digital education, multimodal text, primary education, interactive methods, PIRLS, PISA, information competence.

Introduction. The processes of globalization and digital transformation require the implementation of new pedagogical approaches at all levels of education. As the global landscape witnesses rapid development in the digital economy, artificial intelligence, big data, media technologies, and innovative learning platforms, education systems are likewise undergoing fundamental change. In Uzbekistan, digital transformation has been elevated to the level of national policy, with its conceptual foundations articulated in Presidential Decree PF-60 (The New Uzbekistan Development Strategy for 2022–2026) and Resolution PQ-4884 (Measures for the Development of Digital Education). These policy documents emphasize the integration of digital technologies into the learning process, the enhancement of lesson effectiveness through modern media and interactive platforms, and the cultivation of information competence among learners.

The use of media technologies in primary education is recognized as one of the most efficient and modern methods for developing students' reading and text comprehension skills. At this age, children experience active cognitive development, stabilization of attention, growth of imaginative capacity, and maturation of auditory–visual perceptual mechanisms. From this perspective, a media-enriched multimodal learning environment supports deeper comprehension of textual meaning, facilitates students' visualization of narrative events, and helps them perceive logical relationships among components of a text.

Contemporary media tools—such as audiobooks, video lessons, animations, interactive platforms, digital comics, virtual reading environments, and AR/VR technologies—enhance learners’ reading motivation, provide opportunities to access information through multiple channels, and foster multimodal reading processes. According to Mayer’s (2005) Multimedia Learning Theory, the coordinated functioning of auditory, visual, and sensory systems significantly increases the speed and efficiency of information processing.

Media-assisted instruction not only improves learners’ text comprehension but also contributes to the development of critical thinking, analytical reasoning, inference, independent reading, and communication competencies. International assessments—PIRLS, PISA, and OECD—highlight that media resources and digital texts constitute important factors in the development of primary students’ reading literacy. Therefore, this article provides a comprehensive scientific–pedagogical analysis of the theoretical foundations for using media technologies to enhance reading and text comprehension skills among primary school learners. The article examines the psychological and pedagogical aspects of media technologies, their impact on reading literacy, theoretical concepts of multimodal reading, and the formation of competencies within the digital learning environment. Primary school reading literacy is not limited to recognizing letters or reading fluently; rather, it encompasses complex cognitive processes. Reading literacy refers to a learner’s ability to extract information from a text, understand it, analyze it, draw conclusions, and express personal viewpoints in a coherent and reasoned manner. Psychological and pedagogical research (Vygotsky, Bruner, Leontiev) demonstrates that text comprehension is closely connected with students’ logical thinking, linguistic development, and personal experience, and that the formation of conscious reading skills requires a multi-stage developmental approach. International assessments such as PIRLS and PISA identify the following core components of reading literacy: *Locating and retrieving information* — identifying essential information within a text; *Analyzing and understanding content* — recognizing sequences of events and cause–effect relations; *Interpreting ideas* — identifying the central theme, message, and purpose of the text; *Understanding the author’s stance* — recognizing the evaluative and emotional aspects of the text; *Expressing personal response* — relating the text to one’s own experience and providing reasoned judgments. Media technologies significantly enhance the development of these competencies. They allow learners to engage with texts not in a single mode but through a multimodal combination of audio, video, imagery, animation, and interactive digital elements. Such enrichment increases cognitive engagement and enables faster and deeper comprehension of textual content.

Today, media technologies have become an integral part of the educational process. Their integration into learning activities transforms not only the form of instruction but also fundamentally reshapes its content. In pedagogical practice, media tools are applied on the basis of several theoretical approaches. According to the theory of multimodal learning, when a learner receives information simultaneously through multiple channels—visual, auditory, kinesthetic, and symbolic representations—the level of comprehension and retention significantly increases. As highlighted in the scholarly works of Kress and Van Leeuwen (2001), the advantages of multimodal reading include: deeper comprehension of content through the combination of text, images, audio, and animation; enhanced memory retention due to information being presented through various sensory modalities; and the transformation of the learner from a passive recipient into an active participant in the learning process. Since primary school children more readily perceive figurative and visual information, multimodal instruction substantially facilitates their understanding of textual material.

One of the most significant advantages of media technologies is their ability to transform events, characters, or processes described in a text into vivid visual representations. This contributes to the development of learners’ abilities to imagine scenes, understand event sequences, and relate textual content to real-life contexts.

For instance: – animated videos help learners grasp the sequence of events and relationships between characters; – audio texts support the development of listening-based comprehension skills; – digital comics enable students to perceive the storyline through visual narrative structures; – AR/VR

technologies allow learners to observe textual content in a vivid, three-dimensional environment.

This process is grounded in the principle of “I saw – I heard – I understood – I comprehended,” integrating the learner’s sensory perception mechanisms into a unified system.

The use of media technologies is not limited to enhancing reading literacy alone. They also contribute to the development of essential 21st-century skills, including critical thinking, information analysis, evaluation, creative reasoning, and responsible online behavior.

The following competencies develop through the use of media technologies: – *Information selection and analysis* — the ability to distinguish between reliable and unreliable sources; – *Digital content evaluation* — determining the purpose, origin, and audience of a text; – *Understanding socio-cultural meaning* — recognizing values and ideas conveyed through textual content; – *Safe online engagement* — adhering to internet etiquette and information security principles.

The “Media and Information Literacy (MIL)” standards developed by UNESCO (2021) identify these competencies as essential components of contemporary education.

Media technologies play a crucial role in primary education as powerful tools that stimulate the reading process, activate cognitive engagement, and promote deeper comprehension of texts. When digital technologies are integrated into instruction, all components of reading literacy—motivation, text analysis, content synthesis, communication, and critical thinking—develop in a systematic and interconnected manner. For this reason, media technologies constitute the theoretical foundation for a comprehensive approach to enhancing reading and text comprehension.

Media tools function as a natural motivational factor that engages learners in the reading process. Digital texts, audio stories, video narratives, animated visuals, and interactive tasks stimulate students’ interest, transform reading into a dynamic and enjoyable activity, and strengthen their intrinsic motivation for independent reading. Psychological research demonstrates that multimodal (visual–auditory) materials maintain learners’ attention 40–60% longer than traditional unimodal resources. Consequently, such materials significantly enhance conscious reading, content retention, and recall skills. Moreover, digital media personalize the reading process: each learner can listen, watch, and repeat at their own pace, thereby promoting more stable and sustainable motivation.

Media technologies deepen comprehension by presenting textual content through multiple channels. They vividly and clearly represent key components of a text, including its main idea, sequence of events, character attributes, cause–effect relationships, logical development of the plot, and the author’s purpose and stance.

For instance, when reading traditional text, a young learner constructs meaning only through imagination. However, video, audio, or animation provides concrete visualizations that allow the learner to grasp logical connections more rapidly. As a result, the learner develops essential cognitive skills such as logical reasoning, analysis, comparison, synthesis, and inference—skills that constitute the higher levels of reading literacy and ensure deep comprehension.

Children up to the fourth grade have not yet fully developed abstract thinking and generally operate at the level of concrete–figurative reasoning. Media technologies are highly compatible with these developmental characteristics because they facilitate understanding through visuality, animated representation, audio effects, dynamic motion, and multimodal (visual–auditory) input. In addition, media materials actively stimulate a child’s imagination, creative thinking, emotional perception, and affective engagement. This accelerates the transition from concrete representations to abstract concepts—an essential psychological foundation of reading literacy.

Contemporary instructional methodology places strong emphasis on the use of reading strategies. Media technologies offer an optimal environment for developing such strategies. Specifically: **SKIM** — rapidly identifying general meaning through multimodal texts; **SCAN** — locating specific information using interactive platforms; **Predicting** — anticipating narrative development in videos; **Visualising** —

forming mental imagery through animations and digital comics; Retelling — reconstructing content based on audio or video input.

These strategies foster learners' logical reasoning, text-handling competence, coherent expression, and independent learning skills. Thus, media technologies reinforce the theoretical foundations of text comprehension by supporting the systematic development of reading strategies.

Conclusion. Media technologies represent a modern, effective, and scientifically grounded means of developing reading and text comprehension skills in primary education. They support multimodal reading, visualization, experiential learning, digital literacy, increased motivation, and cognitive processes appropriate to the developmental characteristics of young learners. Through the use of media tools, students acquire deeper comprehension of textual content and develop analytical thinking, critical reasoning, creative problem-solving, and independent reading strategies. This elevates the methodology of reading literacy to a new qualitative level. Therefore, the integration of media resources into instructional systems aimed at improving reading literacy is not only necessary but also theoretically and practically indispensable.

FOYDALANILGAN ADABIYOTLAR

1. O‘zbekiston Respublikasi Prezidentining PQ–4884-son qarori. “Raqamli ta’limni rivojlantirish chora-tadbirlari to‘g‘risida”. 2020.
2. O‘zbekiston Respublikasi Prezidentining PF–60-son Farmoni. “2022–2026 Yangi O‘zbekiston taraqqiyot strategiyasi”.
3. UNESCO. (2021). *Media and Information Literacy Curriculum for Teachers*.
4. OECD. (2019). *PISA Reading Literacy Framework*.
5. PIRLS (2021) *International Report*. IEA Publishing.
6. Kress, G., & Van Leeuwen, T. (2001). *Multimodal Discourse*. London: Routledge.
7. Mayer, R. (2005). *The Cambridge Handbook of Multimedia Learning*. Cambridge University Press.
8. Yakman, G. (2010). *STEAM Education Framework*.
9. Resolution No. PQ–4884 of the President of the Republic of Uzbekistan. *On Measures for the Development of Digital Education*. 2020. Source: <https://lex.uz>
10. Decree No. PF–60 of the President of the Republic of Uzbekistan. *New Uzbekistan – Development Strategy 2022–2026*. Source: <https://lex.uz/docs/5884007>
11. UNESCO. (2022). *STEM and STEAM Global Education Report*. Paris: UNESCO Publishing.
12. Yakman, G. (2010). *STEAM Education Framework*.
13. Bybee, R. (2013). *The Case for STEM Education*. NSTA Press.
14. Qayumova, S. (2022). БЎЛАЖАК БОСШЛАНҒИЧ СИНФ ЎҚИТУВСЧИЛАРИНИ TIMSS ХАЛҚАРО БАҲОЛАШ ДАСТУРИ АСОСИДА МЕТОДИК ТАЙЁРГАРЛИГИНИ РИВОЖЛАНТИРИШДА МУЛТИМЕДИЯ ВОСИТАЛАРИНИНГ ЎРНИ. *Science and innovation, 1*(B4), 159-162.
15. Shohsanam, K. (2023). THEORETICAL IMPORTANCE OF ARTIFICIAL INTELLIGENCE. *Science and innovation, 2*(Special Issue 3), 159-162.
16. Kayumova, S. T. qizi, Sharipov, S. R., Abdullayev, K. A. ugli, & Nurmatov, I. S. (2023). THE THEORETICAL FOUNDATIONS OF IMPROVING STUDENTS' READING PROFICIENCY BASED ON MODERN TRENDS. *RESEARCH AND EDUCATION, 2*(12), 57–61.

17. To'liqin qizi Kayumova, S., Sharipov, S. R., ugli Abdullayev, K. A., & Nurmatov, I. S. (2023). THE THEORETICAL FOUNDATIONS OF IMPROVING STUDENTS'READING PROFICIENCY BASED ON MODERN TRENDS. *RESEARCH AND EDUCATION*, 2(12), 57-61.
18. Kayumova, S. T. K. (2022). DIFFERENCES BETWEEN PISA AND TIMSS INTERNATIONAL ASSESSMENT PROGRAM. *Academic research in educational sciences*, 3(NUU Conference 2), 753-757.
19. Sh. Kayumova (2023). DIDACTIC PRINCIPLES FOR DEVELOPING NATIVE LANGUAGE AND READING LITERACY OF FUTURE PRIMARY SCHOOL TEACHERS. *Science and innovation*, 2 (B9), 57-60. doi: 10.5281/zenodo.8348958
20. Sh. Kayumova (2023). DEVELOPMENT OF STUDENTS' READING LITERACY THROUGH TRIZ PEDAGOGY. *Science and innovation*, 2 (B10), 157-160. doi: 10.5281/zenodo.8433398
21. Qayumova, S. (2022). БЎЛАЖАК БОСПЛАНҒИЧ СИНФ ЎҚИТУВСЧИЛАРИНИ TIMSS ХАЛҚАРО БАҲОЛАШ ДАСТУРИ АСОСИДА МЕТОДИК ТАЙЁРГАРЛИГИНИ РИВОЖЛАНТИРИШДА МУЛТИМЕДИЯ ВОСИТАЛАРИНИНГ ЎРНИ. *Science and innovation*, 1(B4), 159-162.
22. Urol o'gli, M. M. (2024, April). ENHANCING READING LITERACY THROUGH TECHNOLOGY INTEGRATION. In *International conference on multidisciplinary science* (Vol. 2, No. 4, pp. 229-233).
23. To'liqin qizi Kayumova, S., ugli Abdullayev, K. A., ugli Khujamurodov, O. M., & Markabayev, F. T. (2024). THE THEORETICAL IMPORTANCE OF THE STEAM PROGRAM IN THE DEVELOPMENT OF THE QUALITY OF EDUCATION. *RESEARCH AND EDUCATION*, 3(1), 29-33.
24. Qizi, Q. S. T. L. (2024). ENHANCING THE READING LITERACY OF ELEMENTARY SCHOOL STUDENTS THROUGH MODERN TRENDS. *Science and innovation*, 3(Special Issue 18), 190-193.
25. To'liqin qizi Kayumova, S., & Sharipov, S. R. ugli Abdullayev, KA, & Nurmatov, IS (2023). THE THEORETICAL FOUNDATIONS OF IMPROVING STUDENTS'READING PROFICIENCY BASED ON MODERN TRENDS. *RESEARCH AND EDUCATION*, 2(12), 57-61.
26. Kayumova, S. (2025, December). MECHANISMS FOR THE MODIFICATIONAL IMPROVEMENT OF THE METHODOLOGICAL PREPAREDNESS OF FUTURE PRIMARY SCHOOL TEACHERS IN TEACHING STUDENTS TO DEVELOP READING LITERACY. In *International Conference on Business & Management* (Vol. 1, No. 2, pp. 56-60).
27. Yusupjonovna, Q. C. K. (2024, May). THEORETICAL IMPORTANCE OF DEVELOPING LOGICAL AND CRITICAL THINKING SKILLS IN ELEMENTARY SCHOOL STUDENTS. In *International conference on multidisciplinary science* (Vol. 2, No. 5, pp. 67-72).
28. Yusupjonovna, Q. C. K. (2024, May). THEORETICAL IMPORTANCE OF DEVELOPING LOGICAL AND CRITICAL THINKING SKILLS IN ELEMENTARY SCHOOL STUDENTS. In *International conference on multidisciplinary science* (Vol. 2, No. 5, pp. 67-72).
29. Qayumova, S., & Akmalxonov, S. F. A. (2024). MATERIALS FOR CLASS WITH STUDENTS AT DIFFERENT LEVELS. *Academic research in educational sciences*, 5(CSPU Conference 1 Part 2), 468-472.