

## **Methodological Approaches to Improving the Training Methods for Future Primary School Teachers in Developing Reading Literacy among Students**

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**Abstract.** *This article analyzes contemporary methodological approaches to preparing future primary school teachers for developing reading literacy among students. Based on an examination of international experience and scientific-pedagogical literature, the study explores ways to improve teacher-training programs, effective pedagogical strategies and methods, as well as existing shortcomings in teacher education and approaches to addressing them. The article discusses instructional methods for teaching key components of reading literacy such as phonemic awareness, phonics, fluency, vocabulary development, comprehension, and assessment. It further recommends differentiated instruction, cognitive strategies, and evidence-based teaching approaches. The theoretical and practical foundations of global assessments (PIRLS, PISA), national curricula, competency-based education, digital and innovative methods (Learning Analytics, gamification, STEAM), and integrative technologies are examined in detail. The paper also provides scientifically grounded recommendations for enhancing teachers' methodological readiness, lesson-design competencies, and diagnostic and assessment mechanisms. The research findings contribute to increasing the preparedness of future teachers to effectively develop students' reading literacy.*

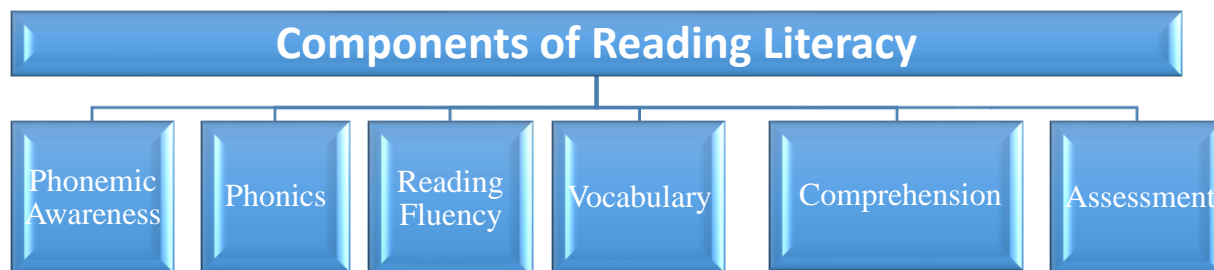
**Key words:** *reading literacy, primary education, teacher training, methodological approaches, pedagogical strategies, evidence-based instruction, PIRLS, methodological preparedness, competency-based approach, teacher model, innovative technologies, diagnostics, assessment.*

**Introduction.** In today's context of globalization, one of the primary objectives of primary education is the development of reading literacy among students. The Law of the Republic of Uzbekistan "On Education" (2020), the national program "New Uzbekistan – Development Strategy 2022–2026" (PF–60), as well as the renewed curricula of the Ministry of Public Education, require strengthening teachers' methodological preparedness in this direction. Analysis of PIRLS international assessment results also indicates the need to enhance teachers' professionalism in developing students' reading literacy. Therefore, improving the methodological training of future primary school teachers is considered a pressing scientific and pedagogical issue. In the modern education system, reading literacy is one of the key competencies, playing a crucial role in students' success at subsequent educational stages and in the formation of essential life skills [1]. Reading literacy includes not only the ability to read a text, but also the skills of understanding, analyzing, evaluating, and applying the information obtained from the text in practice [2].

Preparing future primary school teachers with high quality is one of the priority tasks of the education system, as it is in the primary grades that the foundations of reading literacy are established [3]. However, numerous studies show that teacher-training programs are often insufficiently aligned, lack

balance between theoretical and practical components, and do not adequately incorporate modern evidence-based approaches [4].

The purpose of this article is to identify and recommend effective methodological approaches for improving the training of future primary school teachers in developing reading literacy among students. The theory of reading literacy development is based on a set of interconnected, evidence-based components. International research and pedagogical practice highlight the following key components [5]:



**Picture 1. Components of reading literacy**

1. *Phonemic Awareness*. Phonemic awareness is the ability to identify, distinguish, and manipulate phonemes—the smallest units of sound in speech. It represents an essential stage of learning to read and helps children understand the relationship between sounds and letters [6]. Teacher training should emphasize the methodology of conducting phonemic awareness activities, techniques for segmenting and blending sounds, and the development of phonemic skills through games and interactive tasks.

2. *Phonics*. Phonics involves teaching the relationship between letters and sounds. Systematic phonics instruction enables students to read and write new words independently [7]. Teacher-preparation programs should include: methods for teaching letters and sounds in sequence; synthetic and analytic phonics approaches; and techniques for applying phonics rules in practice.

3. *Reading Fluency*. Reading fluency is the ability to read a text accurately, quickly, and with expression. Fluent reading enhances comprehension because cognitive resources are directed toward understanding meaning rather than decoding [8]. To develop fluency in students, future teachers must learn strategies such as repeated reading and paired reading, methods for assessing reading rate and accuracy, and techniques for fostering expressive reading.

4. *Vocabulary Development*. A rich vocabulary is one of the key prerequisites for comprehension. The more words students know, the better they understand the text [9]. Instruction should include contextual vocabulary teaching, word-formation rules (prefixes, suffixes, roots), and interactive methods to expand students' vocabulary.

5. *Comprehension*. Comprehension is the primary goal of reading literacy and reflects the ability to understand, analyze, and evaluate textual meaning [10]. Teachers must learn strategies such as metacognitive techniques (before, during, and after reading), questioning and answering techniques, analysis of text structures and genres, visualization, and inferencing strategies.

6. *Assessment*. Assessment of reading skills helps teachers identify students' achievements and difficulties, as well as adapt instruction to their individual needs [11]. Assessment components include diagnostic assessment (initial skills and knowledge), formative assessment (ongoing monitoring during learning), summative assessment (evaluation of final outcomes), early identification of reading difficulties, and methodological approaches used in teacher training.

#### Key Methodological Approaches Highlighted in International Research and Effective Practice

**Evidence-Based Practice.** An evidence-based approach involves using methods and strategies that have been validated through scientific research [12].

Principles of implementation include: updating instructional programs using current research; applying proven-effective methods in practice; training teachers to work with scientific literature; and promoting reflective practice and continuous professional development.

**Systematic and Coherent Instruction.** All components of reading literacy must be taught systematically and in a logically connected sequence [13]. A common challenge in teacher-training programs is that reading components are taught separately or inconsistently. An improved approach requires: integrated instruction of reading components; alignment between theoretical courses and practical activities; a progressively structured curriculum; and consistent attention to reading literacy across all methodology courses.

**Cognitive Strategy Instruction.** Cognitive strategies help students consciously regulate the reading process and improve comprehension [14]. Future teachers must master these strategies themselves before teaching them to their students. Core cognitive strategies include: activating prior knowledge; predicting and hypothesizing; questioning and seeking answers; visualization and creating mental imagery; making inferences and generalizations; and monitoring and self-regulation. Studies show that cognitive-strategy instruction not only improves pre-service teachers' own reading comprehension skills but also prepares them to model these strategies effectively in the classroom [15].

**Differentiated Instruction.** Each student has unique learning pace, style, and needs. Differentiated instruction helps teachers work effectively with diverse learners [16]. Future teachers must learn: methods for identifying students' individual needs; preparing materials and tasks at different levels; strategies for small-group instruction; adaptive teaching techniques; and methods for supporting students with reading difficulties. Research shows that pre-service teachers who receive specialized training in differentiated instruction are more successful in meeting diverse student needs during teaching practice [17]. **Short Intensive Modules.** Studies indicate that short but intensive and targeted modules can rapidly improve pre-service teachers' knowledge, particularly in under-taught areas such as fluency and assessment [18]. An effective module includes: clear goals and outcomes; 6–12 hours of intensive instruction; practical exercises and simulations; immediate feedback and reflection; and application of learned content to real teaching scenarios.

**Supervised Practicum.** To transform theoretical knowledge into practical skills, adequate teaching practice under the supervision of experienced teachers is essential [19]. Effective practicum components include: sufficient duration of teaching practice; regular supervision by mentor teachers; opportunities to design and teach lessons; video analysis and reflective discussions; and exposure to various classes and school environments.

**Assessment-Informed Teaching.** Future teachers must learn methods for assessing students' reading skills and using the results to adapt instruction [20]. Assessment literacy includes: selecting and applying various assessment tools; interpreting assessment results; planning instructional adjustments based on the results; choosing strategies for working individually and in groups; establishing effective communication with parents; and addressing challenges commonly faced by pre-service teachers. Research shows that pre-service teachers encounter the following major difficulties when learning to teach reading literacy:

**Inconsistent and insufficient preparation.** In many teacher-training programs, reading components are taught irregularly and without sufficient depth [21]. As a result, future teachers demonstrate strong preparation in some aspects of reading literacy while remaining weak in others.

**Limited knowledge of fluency and assessment.** Studies indicate that pre-service teachers often possess the weakest knowledge in teaching reading fluency and assessing reading skills [22]. This is a serious problem, as both components are essential for identifying struggling readers and providing appropriate support.

**Difficulty transferring theoretical knowledge into practice.** Although cognitive strategies and other methods are learned theoretically, extensive practice is required to apply them automatically during instruction [23]. Many training programs lack a sufficiently developed practicum component.

**Insufficient preparation for working with diverse learners** Pre-service teachers frequently struggle when working with students of varying achievement levels because they receive little specialized training in differentiated instruction [24].

Contextual and resource limitations. Especially in developing countries and resource-limited settings, pre-service teachers experience additional challenges in applying modern instructional methods [25]. Analysis of international experience highlights several major shortcomings in teacher-preparation programs and suggests ways to overcome them:

Shortcoming	Consequences	Ways to Address
<b>1. Lack of a coherent curriculum</b>	Irregular and superficial learning of reading components	Developing an evidence-based, coherent curriculum; integrating all components into unified instruction
<b>2. Insufficient course load and sequencing</b>	Significant variation in pre-service teachers' knowledge levels	Increasing the number of mandatory courses on reading methodology; designing a progressively structured program
<b>3. Limited attention to assessment and fluency</b>	Difficulties in identifying struggling readers and providing support	Giving special attention to these areas through dedicated modules and practical training sessions
<b>4. Insufficient practicum and supervision</b>	Inability to translate theoretical knowledge into practical skills	Extending the duration of teaching practicum; ensuring regular supervision by mentor teachers; using video analysis and reflective discussions
<b>5. Lack of contextual adaptation</b>	Use of methods that do not align with local conditions	Adapting programs to local language, culture, and resources; studying successful local practices
<b>6. Absence of an evidence-based approach</b>	Use of ineffective or outdated methods	Integrating recent research findings into programs; training teacher educators in modern, evidence-based methods

During our research, we examined several successful programs implemented in international practice: **Vietnam: Course on Cognitive Strategies.** In Vietnam, an initiative was carried out to integrate metacognitive reading strategies into the methodology courses for pre-service primary school teachers. The results showed that this approach significantly improved pre-service teachers' reading comprehension skills and better prepared them to model these strategies in the classroom [26]. **Trinidad and Tobago: Differentiated Instruction Module.** During a two-week practicum, pre-service teachers who received specialized training in differentiated reading structures demonstrated a greater ability to meet the diverse needs of students [27]. **Namibia: Structured Reading Program.** A structured reading instruction program, adapted from Western methods and designed primarily for unqualified or underqualified teachers, was implemented in Namibia. The program helped improve teachers' ability to effectively teach reading [28]. **Short Intensive Literacy Module.** A 9-hour module for pre-service primary school teachers—including phonemic awareness, phonics, fluency, vocabulary, comprehension, and assessment—led to significant gains in content knowledge, especially in fluency and assessment [29]. To improve the methodology of preparing future primary school teachers to develop reading literacy in students, the following recommendations are proposed:

**Systematizing the Curriculum.** Teaching all key components of reading literacy (phonemic awareness, phonics, fluency, vocabulary, comprehension, and assessment) in a coherent and integrated manner; **Ensuring strong alignment between theoretical courses and practical training;** **Emphasizing reading literacy components across all methodology subjects.** Applying an Evidence-Based Approach: updating instructional programs based on recent research findings; implementing methods and strategies with proven effectiveness; training pre-service teachers to work with scientific literature. Ensuring Balance Between Theory and Practice: increasing the duration of teaching practicum; providing continuous supervision and guidance from experienced mentor teachers; incorporating video analysis, reflective discussions, and peer collaboration. Targeted Focus on Areas Requiring Special Attention: addressing under-taught areas such as fluency and assessment through short, intensive modules; providing specialized training in differentiated instruction; teaching methodologies for supporting students with reading difficulties. Teaching Cognitive Strategies: training pre-service teachers in metacognitive strategies for reading comprehension; conducting



practical exercises on implementing these strategies during instruction; developing skills for modeling cognitive strategies and teaching them to students; Developing Assessment Literacy: building competence in selecting and using a variety of assessment tools; training pre-service teachers to interpret assessment results and use them to adjust instruction; integrating formative assessment into everyday classroom practice. Adapting to the Local Context: considering local language, culture, and resource conditions; studying and disseminating successful local practices; preparing teachers to work in diverse and resource-constrained environments. Ensuring Continuous Professional Development: developing reflective practice skills among pre-service teachers; fostering motivation for continuous learning and professional growth; cultivating a culture of collaboration and experience sharing among colleagues.

**Conclusion.** Preparing future primary school teachers to develop reading literacy among students is one of the key priorities of the modern education system. Analysis of international research and effective practices shows that improving teacher-training programs requires the following core approaches: A systematic and coherent curriculum – integrating all components of reading literacy into unified instruction. Evidence-based teaching – using methods validated by scientific research. Balance between theory and practice – ensuring sufficient practicum and supervised instruction. Differentiated instruction – preparing teachers to work with learners of diverse needs. Cognitive strategies – teaching metacognitive reading strategies. Assessment literacy – assessing reading skills and using results to guide instruction. Short intensive modules – providing rapid preparation in underdeveloped areas. Contextual adaptation – considering national and local characteristics. Implementing these approaches can significantly enhance pre-service teachers' knowledge, skills, and competencies in teaching reading literacy, thereby contributing to the improvement of reading proficiency among primary school students. Future research should focus on developing programs adapted to the local context and evaluating their effectiveness.

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