



## **FOUNDATIONS FOR DEVELOPING FUNCTIONAL LITERACY IN STUDENTS**

*Mirxalilova Nargiza Akbarovna*

*Senior Lecturer at Silk Road University of Innovations,  
Independent Researcher*

**Abstract:** This article discusses the theoretical and methodological foundations for developing functional literacy among primary school students. It provides an overview of the scholars who have conducted research in the field of functional literacy, explores the various types of functional literacy, and analyzes how theoretical knowledge can be applied in practice. The paper also outlines strategies for implementing functional literacy in primary education, stages for improving students' levels of functional literacy, and the main directions and developmental stages for enhancing functional literacy.

**Keywords:** independent thinking, cognitive activity, functional literacy, TIMSS international assessment program, PIRLS international assessment program.

**Introduction.** Global changes in the field of education require the improvement of functional literacy among primary school students in line with current developmental trends. The Education Agenda for 2030, adopted by international organizations and developed countries, emphasizes the urgent task of "ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all." This objective highlights the importance of scientific research aimed at developing functional literacy among primary school students.

International pedagogical practices demonstrate the need to effectively utilize the integrative opportunities for assessing and developing functional literacy at the primary level.

**Literature Review Related to the Research.** Studies by national scholars such as M. Jumayev, A. Kudratova, K. Boymenova, U. Inoyatov, B. Khodjayev, M. Vakhobov, O. Qo'ysinov, and D.M. Mamatqulov have explored the theoretical and practical foundations for developing students' creative activity, independent thinking, and cognitive engagement. Research by I.E. Shernazarov and D.M. Maxmudova has focused on educational technologies aimed at fostering functional literacy in students.

Further research by A. Radjiyev, A.A. Ismailov, Kh.J. Daminov, Q.K. Karimberdiyev, G.O. Tog'ayeva, N.A. Karimov, Z.A. Kosimova, G.A. Pirimov, D. Asqarova, S.R. Akbarova, D. Norboyeva, D. Manapova, M. Uralova, B.Q. Haydarov, H.P. Akhmedov, M. Maxsudov, M. Boymuratova, and E. Tursunov has addressed issues such as participation in international assessment studies, preparation for such evaluations, the development of scientific literacy among students, and the design of tasks to determine literacy levels.

In the Commonwealth of Independent States (CIS), scholars such as A.A. Veryayev, M.N. Nechunaeva, G.V. Tatarnikova, M.A. Kholodnaya, A.A. Leontiev, B.G. Kubaydullaeva, V.P. Bepalko, I.A. Volodar, A.M. Mitina, B.A. Ananyev, Ch. Kupisiewicz, and others have widely studied the problems related to functional literacy and its development.

Research on functional literacy in foreign countries, as well as on international assessment programs such as TIMSS and PIRLS, has been conducted by scholars including Mary Lindquist, Ray Philpot, Ina V.S. Mullis, Kerry E. Cotter, Victoria A.S. Centurino, Lee R. Jones, Kelly Martin, R. Tyler, J. Guilford, B.S. Bloom, D. Hiebert, B.P. Bitinas, R.M. Gagne, P.Ya. Galperin, J.P. Guilford, A.M. Matyushkin, Ch.S. Nosal, and M. Oboro.

**Problems.** The regulations of the TIMSS and PIRLS international assessment programs

highlight the need to improve the pedagogical conditions for developing functional literacy among primary school students based on national education systems. There is also a necessity to develop and implement assessment tasks that resemble those found in international evaluation programs.

Within the framework of this study, an implementation strategy was developed, which is designed as follows:

Functional literacy is defined as the effective application of knowledge, skills, abilities, and competencies acquired through reading, mathematics, science, financial and computer literacy, global competencies, and creative thinking in everyday life.

**Discussion.** Functional literacy encompasses the following types of literacy:

- Reading literacy
- Mathematical literacy
- Scientific literacy
- Financial literacy
- Computer literacy
- Creative literacy

In this study, we analyzed the concept of functional literacy within three main types and developed the research methodology accordingly:

1. Reading literacy
2. Mathematical literacy
3. Creative literacy

The characteristics of students' levels of functional literacy include the following indicators:

- Goal setting
- Planning
- Decision making
- Execution
- Evaluation of results

The practical application of theoretical knowledge fosters the following abilities in primary school students:

1. Development of students' cognitive abilities
2. Activation of cognitive and intellectual engagement
3. Enhancement of self-directed learning skills
4. Contribution to the formation of universal learning activities
5. Development of the ability to identify the main idea of a text
6. Support in analyzing texts from different perspectives
7. Assistance in evaluating information and learning new concepts
8. Improvement in comprehension and encouraging individual expression

**Implementation Strategies for Functional Literacy in Primary School Students:**

1. Developing more fundamental ideas about functional literacy than currently available
2. Creating a codifier of learning outcomes and analyzing functional literacy in more detail by projecting these outcomes across school and university subjects
3. Clarifying the developmental stages of different components of functional literacy

**Stages of Improving Functional Literacy in Primary School Students:**

Tasks that are solved using knowledge both within and beyond the subject framework should be based on real-life contexts that students can relate to. Each task should be grounded in a familiar life situation and require the student to consciously choose an appropriate behavioral model. The questions should be simple, clearly worded, and translated from everyday language into academic or subject-specific language. Various forms of information presentation should be used, such as images, tables, diagrams, comics, and others.

**Directions for Improving Functional Literacy:**

1. Reducing the proportion of students who have not reached the highest level of functional literacy

2. Increasing the effectiveness of work with gifted and high-achieving students
3. Developing metacognitive skills, which are essential for lifelong learning
4. Fostering learning abilities in all students

#### **Developmental Levels of Functional Literacy:**

1. **Low** – The student can handle relatively familiar problem situations, apply well-known mathematical knowledge directly, and interpret simple texts.
2. **Medium** – The student can describe moderately complex situations encountered in life but not yet practiced. Several formal methods of processing the information are suggested.
3. **High** – The student can interpret complex and unfamiliar situations, requiring deep thinking and creative approaches. This includes independently constructing a mathematical model of the situation, engaging in discussion, and developing appropriate problem-solving methods.

**Methods.** In order to enhance the functional literacy of primary school students, we propose the use of the “Instagram” method.

**Implementation of the method:** Students are divided into 4 or 5 groups. Each group is provided with a sheet of paper, colored pencils, and pens (it is preferable if the facilitator provides these materials). All groups receive the same topic. Students are encouraged to express their understanding of the topic creatively—through writing, poetry, drawings, or any other non-traditional format. The key requirement is a creative approach and clear communication of the topic.

Groups are instructed **not** to write their group names on the paper and **not** to share their project with other groups during the process. A time limit is set for task completion, after which all submissions are collected. It is strictly emphasized that when presenting, groups must **not** claim ownership of their own projects.

The classroom board acts as the **Instagram platform**, where each group’s project is anonymously displayed one by one. As each work is presented, students are asked whether they liked it or not, using gestures: (like) or (dislike). The number of likes and dislikes is recorded, and based on this count, the winning group is determined and rewarded.

As part of this method:

- Students work in four groups.
- Each group discusses and solves test questions collaboratively.
- Group names are not written on the paper to maintain anonymity.
- Projects are reviewed publicly on the “Instagram” board.
- Instagram symbols are used for encouragement and reward.
- Final scores are calculated to determine the most successful group.

**Conclusion.** In conclusion, the formation of functional literacy among primary school students requires focused attention on the different types of literacy it encompasses, the application of theoretical knowledge in practical contexts, effective implementation strategies, developmental stages of functional literacy enhancement, and targeted improvement directions. These elements should be actively integrated into educational practice to ensure meaningful progress.

#### **References**

1. Mirxalilova N.A. TIMSS 2023 mathematics assessment scope // Annals of Forest Research <https://www.e-afr.org/> 2022. 5399-5404-b.
2. Mirxalilova N.A. Use of the "Working with objects" methodology in preparing for international studies // American Journal of Research in Humanities and Social Sciences // ISSN (E): 2832-8019 Volume 13, | June, 2023. Pp: 152-154. [www.americanjournal.org](http://www.americanjournal.org).
6. Mirxalilova N.A. Functional Literacy in Primary Education // AMERICAN Journal of Religious and Cultural Studies Volume 2, Issue 4, 2024 ISSN (E): Pp: 2993-2599.
11. Usmanova Mashkura Mirzoroximovna. The content of improving the teaching methods of future teachers of the Russian language based on reflexive innovative technologies and its scientific and theoretical pedagogical foundations // European Journal of Interdisciplinary Research and Development. 2025-yil. Website: [www.ejird.journalspark.org](http://www.ejird.journalspark.org)

12. Usmanova Mashkura Mirzoroximovna. Improving the teaching methods of future teachers of the Russian language based on reflexive innovative technologies as a topical problem // academic research in modern science International scientific-online conference. 2025-yil. <https://doi.org/10.5281/zenodo.14723225>
13. Usmanova Mashkura Mirzoroximovna. Improving the methodology of teaching the Russian language based on reflexive innovative technologies for future teachers of the Russian language // trends in the development of science "Moscow - 2025". 2025-yil.
14. M.M.Usmanova. Spiritual and Moral Self-Awareness: The Key to Harmony and Personal Development // Intersections of Faith and Culture: AMERICAN Journal of Religious and Cultural Studies. -18/04/2024, 2024-yil.
19. M.M.Usmanova. FEATURES OF THE METHODOLOGY OF TEACHING FUTURE TEACHERS OF THE RUSSIAN LANGUAGE IN MODERN SOCIETY // TADQIQOTLAR Jahon ilmiy – metodik jurnali. -xalqaro , 2025-yil. <https://journal-web.uz/index.php/07/article/view/930>
20. M.M.Usmanova. THE STATE OF THE PROBLEM OF IMPROVING THE METHODOLOGY OF TEACHING FUTURE TEACHERS OF THE RUSSIAN LANGUAGE BASED ON REFLECTIVE INNOVATIVE TECHNOLOGIES // THE BEST INTELLECTUAL RESEARCHES. -xalqaro, 2025-yil. <https://scientific-jl.com/luch/article/view/1414>
19. Xunarova L.A. Grammatical complexity in teaching Russian as a foreign language // The best intellectual research. -2025, 2025-yil. 3030-3680.
20. Xunarova L.A. Features of the technology of improving the methodology of teaching the Russian language to students through innovative educational technologies in society // Trends in the development of science "Moscow-2025". -UDC 62-5, 2025-yil.
21. Xunarova L.A. Improving the methodology of teaching Russian to students through innovative educational technologies // TRENDS IN EDUCATION AND PEDAGOGY DEVELOPMENT. -166, 2024-yil. 11.11.2024.
22. Xunarova L.A. Uzbek folklore, history and its place in literature // GALAXY INTERNATIONAL INTERDISCIPLINARY RESEARCH JOURNAL (GIIRJ). -ISSN (E): 23-47-6915, 2023-yil. In volume 11, Issue 5
23. Asadbek Khabibullaev. Sociolinguistic Factors and Pedagogical Strategies in English Language Learning: A Case Study from Uzbekistan // American Journal Of Advanced Scientific Research // ISSN: 2195-1381, 2025. Pp: 60-62. <http://ijarer.org/index.php/ij/article/view/124>