

**REFLECTION OF THINKING SKILLS IN INTERNATIONAL RESEARCH AND MODERN
PEDAGOGICAL APPROACHES****Eshkuvvatova Khosiyat Farhodovna**

2nd-year Master's student

Samarkand State Pedagogical Institute

Annotation

This article analyzes the manifestation of creative and critical thinking abilities and skills among students in primary education. The impact of international assessment programs such as TIMSS and PIRLS on education and their role in measuring students' thinking skills are highlighted. The article discusses in detail the concepts of creative and critical thinking, methods for their development in primary education, international experience, and changes in the education system of Uzbekistan. The necessity of introducing modern methods to develop students' independent thinking, creativity, and critical analysis skills is emphasized.

Keywords: international assessment programs, international research, PISA, PIRLS, creative thinking, logical activity.

Introduction

At the International Education Forum dedicated to the modernization of the global education system, the Sustainable Education Concept until 2030 was adopted, which recognizes education as “the main driving force of development and an important factor in achieving sustainable development goals.” In this regard, large-scale work is being carried out in general secondary schools to develop students’ logical thinking abilities, create new generation textbooks, and introduce modern information technologies into the educational process. Based on an integrative approach, projects aimed at developing logical thinking, forming independent learning skills in primary school students, and improving the educational and methodological base are being consistently implemented.

In leading educational and research institutions around the world, the issue of introducing creative mechanisms for developing logical reasoning skills of primary school students into the educational process is being deeply studied. Scientific research is being conducted to improve the theoretical and methodological foundations of education, reorganize primary school lessons based on modern requirements, and identify opportunities for integrating the continuous education system with science and industry. At the same time, research is also being conducted to determine the didactic possibilities and pedagogical technologies of targeted learning situations in developing students’ logical thinking skills.

In recent years, Uzbekistan has also created regulatory and legal frameworks aimed at studying the logical and intellectual abilities of primary school students based on an integrative approach, developing their reasoning skills, and improving the content of the educational process. The appeal of the President of the Republic of Uzbekistan Sh. M. Mirziyoyev that “we will mobilize all opportunities

so that our youth grow up as independently thinking individuals with high intellectual and spiritual potential who are not inferior to their peers in any field on a global scale” places special emphasis on educating primary school students as independently thinking and intellectually mature individuals. Therefore, scientific research aimed at studying the dynamics of logical thinking development in primary grades is gaining particular importance.

Literature review

As one of the education scholars, Professor J. Anderson, noted: “International assessment systems, especially PIRLS and EGRA, serve as scientific diagnostic tools for education, through which the social, methodological, and cultural characteristics of the educational environment are studied and pave the way for renewal.” International assessment studies not only evaluate students’ knowledge and skills but also provide an opportunity to analyze the alignment between educational goals, teaching processes, and assessment systems. This process serves to improve the content of education and enhance the quality of teaching (Anderson & Krathwohl, 2001).

According to academician A. A’zamov, “international assessment programs serve not only to test students’ knowledge but also as an important impetus for identifying problems in the national education system, improving curricula, and enhancing teacher qualifications.”

Professor X. Mahmudova emphasizes that “the advantage of international assessment programs is that they are based not on whether a student ‘knows’ or ‘does not know,’ but on whether they can apply their knowledge. This requires a new approach in education.”

Field specialist A. O’rinboyev also states: “Based on PIRLS and EGRA results, it is possible to shape education policy, revise curricula based on modern competencies, and create strategies for teachers’ professional development.”

Discussion and results

In recent decades, the development of students’ independent, critical, and creative thinking skills has become the focus of global attention in international educational research. In particular, international assessment programs such as PIRLS, PISA, TIMSS, and EGRA measure not only students’ knowledge levels but also their cognitive activities, ability to analyze texts, express evidence-based opinions, and find solutions to problems.

For example, the PISA (Programme for International Student Assessment) study evaluates the functional literacy of 15-year-old students, their problem-oriented thinking, and independence in decision-making. PISA reports emphasize that countries with high performance (Singapore, Finland, Japan) pay special attention to the development of critical and creative thinking in their curricula.

The UNESCO report Foresight in Education (2021) states:

“In the 21st century, education systems should not teach students ready-made answers but rather teach them how to find answers to complex questions. This requires the development of critical, creative, and reflective thinking skills.”

Modern pedagogical approaches such as constructivism, competency-based education, CLIL, STEAM, and active learning methods are aimed at activating students' thinking processes. In these approaches, the student is considered:

Not as a passive recipient of knowledge, but as an active creator of knowledge;

Able to independently justify, defend, and analyze their ideas;

Capable of differentiated thinking while working with texts, images, tables, and problems.

According to education scholar Z. Rasulova:

“The main task of modern pedagogy is not to equip students with knowledge, but to encourage them toward critical and creative thinking. This requires the active use of questions, problem-based tasks, debates, and discussions during lessons.”

Recommendations

In international practice, the development of students' thinking skills is implemented through the following methodological approaches:

Socratic dialogue – guiding students toward deep reflection through questions and answers;

Working with question types based on Bloom's taxonomy;

Debates and group discussions;

Argumentation of ideas through analytical essays and oral presentations.

Tasks developed based on PIRLS assessment criteria also require students not only to understand the text but also to express their attitude toward the author's ideas, identify hidden meanings or messages, and relate them to personal experience, which involve complex thinking processes.

In the 2023 Address of President Sh. Mirziyoyev, special emphasis was also placed on this issue:

“Today's education system must raise young people to be independent thinkers, innovative, and proactive.”

Conclusion

In conclusion, international research and modern pedagogical approaches place the development of thinking skills at the center of educational strategy. Uzbekistan is also striving to adapt advanced international experience to its national education system in order to shape students not only as knowledgeable individuals but also as intellectually developed thinkers.

REFERENCES

1. Abdullaev, A. (2018). O'zbekiston ta'lim tizimidagi islohotlar: Darsliklar va metodik qo'llanmalar. O'zbekiston Milliy Ensiklopediyasi.
2. G'ulomov, O. (2019). Boshlang'ich ta'limda mantiqiy fikrlashni rivojlantirish metodikasi. O'zbekiston Respublikasi Xalq ta'limi vazirligi.
3. Tursunov, M. (2020). Ta'limda tanqidi fikrlash: Nazariy asoslar va amaliyot. Toshkent, O'zbekiston.
4. Shamsiev, A. (2017). Matematika darslarida o'quvchilarda ijodiy fikrlashni rivojlantirish. Toshkent, Akademnashr.
5. Murodov, A. (2019). O'quvchilarni tanqidi fikrlashga o'rgatish metodikasi. Ta'lim va pedagogika ilmiy tadqiqotlari, 5(3), 105-112.
6. Rakhmatov, S. (2020). PISA baholash dasturi va uning O'zbekistondagi ta'lim tizimiga ta'siri. Pedagogika va psixologiya jurnal, 8(2), 34-42.
7. Jumayev, R. (2018). O'zbekistonda boshlang'ich ta'limning rivojlanish yo'llari. O'zbekiston Xalq ta'limi akademiyasi.
8. Sirojov, A. (2021). Innovatsion pedagogik texnologiyalar va ularning boshlang'ich ta'limda qo'llanilishi. O'zbekiston Ta'limi jurnali, 2(4), 49-58.
9. Yuldashev, F. (2022). Xalqaro baholash dasturlari asosida ta'lim samaradorligini oshirish. Ta'limni rivojlantirish ilmiy jurnali, 3(1), 12-20.
10. Berkov, D. (2020). O'zbekistonda xalqaro baholash dasturlarining qo'llanilishi va natijalari. Ta'lim va ilmiy tadqiqotlar, 7(3), 101-108.
11. To'xtasinov, R. (2019). Boshlang'ich ta'limda o'quvchilarni fikrlashga o'rgatish metodikasi. Toshkent davlat pedagogika universiteti.
12. Akhmedov, M. (2021). O'qish darslarida ijodiy va tanqidi fikrlashni rivojlantirish. O'zbekistan ta'limi va pedagogikasi jurnali, 9(1), 67-75.
13. Khodjayeva, D. (2019). Xalqaro baholash dasturlarining ta'limdagi ahamiyati va ularning O'zbekistondagi tatbiqi. Ta'lim va texnologiyalar, 5(2), 88-95.
14. Javlonov, U. (2018). PISA va TIMSS dasturlari: O'zbekiston ta'lim tizimi uchun tavsiyalar. Pedagogik ilm-fan jurnali, 6(4), 150-158.
15. Mirzaev, B. (2020). Tanqidi fikrlashni boshlang'ich ta'limda rivojlantirish metodikasi. Toshkent, Sharq nashriyoti.