INNOVATIVE TECHNOLOGICA
METHODICAL RESEARCH JOURNAL
ISSN: 2776-0987 Volume 6, Issue 9, September – 2025

TECHNOLOGY FOR DEVELOPING COGNITIVE COMPETENCE OF FUTURE TEACHERS BASED ON A FACILITATIVE APPROACH

Rakhmonkulova Nafisa Khasanovna
Teacher, Kokand State University

Abstract

This article analyzes the technology of developing cognitive competence of future teachers based on a facilitative approach from a theoretical and practical perspective. The role of the facilitative approach in the educational process, its potential for developing students' independent thinking, problem-solving, analysis and reflection skills, is shown. The components of cognitive competence and methods for their development are also scientifically substantiated. The article comprehensively covers the issues of increasing the intellectual potential of future teachers through the use of innovative pedagogical technologies in their professional training, encouraging them to learn in collaboration, and ensuring the quality of education.

Keywords: Facilitative approach, cognitive competence, future teacher, pedagogical technology, quality of education, independent thinking, innovative education.

Introduction

The radical renewal of the educational process in the 21st century requires the teacher to be not only a provider of knowledge, but also an active guide in the process of independent thinking, creative research and self-development of students. In this regard, the issue of developing the cognitive competence of future teachers is of great importance. In today's era of globalization, the quality of education is assessed based on international standards. For example, in international assessment programs such as PISA, PIRLS, TIMSS, students' knowledge is assessed not only through recitation, but also through the ability to apply it in practical life, analyze, and draw logical conclusions. Therefore, the development of their cognitive competence in the process of training teachers is becoming a priority. The facilitative approach is one of the effective ways to achieve this goal.

Currently, the issue of developing the professional competence of future teachers, in particular cognitive competence, is gaining urgent importance in the education system. The use of a facilitative approach in the educational process is an effective

ISSN: 2776-0987 Volume 6, Issue 9, September – 2025

technology for developing skills such as cooperation between the teacher and the student, free thinking, analysis of problem situations, and independent decision-making. This article analyzes the theoretical and practical foundations of the facilitative approach and highlights the possibilities of developing cognitive competence in future teachers with its help. The facilitative approach involves organizing the teacher's activities in the educational process at a new level. The teacher does not remain only a source of knowledge in the traditional way, but also acts as a guide, encourager, and supporter of the student in independently acquiring his knowledge. As noted in Carl Rogers's work 'Freedom to Learn', when an environment of freedom, trust, and cooperation is created in education, students' motivation to learn increases. This idea forms the methodological basis of the facilitative approach.

From a psychological point of view, the facilitative approach is consistent with the concept of the ‘zone of proximal development’ in Lev Vygotsky’s teaching. Because the teacher plays a supporting role in helping the student achieve results above their current level of knowledge. Also, J. Dewey, J. Piaget and other scientists have put forward the principles of active learning, cooperation, and experiential learning in education. The facilitative approach assumes that the teacher’s activity is more of a guiding, motivating, and supporting role than a traditional educator. In this approach, the student is considered an active participant in the educational process, an independent research subject. Facilitative activity is aimed at realizing the student’s personal potential, taking into account his interests, and developing his creative potential. Therefore, the facilitative approach is recognized as one of the most effective methodological approaches in modern pedagogy.

Cognitive competence includes a person's ability to acquire knowledge, analyze it, generalize it, apply it in new situations, and draw independent conclusions. In OECD documents, cognitive competence is interpreted as one of the main life competencies. The main criterion is not the level of mastery of knowledge by the learner, but his ability to apply it in practice, critically analyze it, and create new knowledge.

The following components of cognitive competence are distinguished for future teachers:

1) Analytical thinking skills;
2) The ability to solve problem situations;
3) Search, processing, and effective use of information;

ISSN: 2776-0987 Volume 6, Issue 9, September – 2025

4) Reflection and self-assessment;
5) Innovative thinking and creativity.

This technology is implemented in stages and is aimed at ensuring maximum student activity. The following stages are considered important:

1. Motivational stage - arousing students' interest in the topic, posing a problem, and encouraging them.
2. Creating a problem situation - asking questions based on real-life examples, using case studies, brainstorming methods.
3. Activity stage - group and individual tasks, interactive methods, research using information technologies.
4. Reflection stage - students analyze their own activities, work on mistakes, and draw conclusions.
5. Final generalization - systematizing the knowledge gained and applying it to practice.

To develop cognitive competence in future teachers, it is necessary to develop special pedagogical technologies based on a facilitative approach. Such technologies include the following stages: motivational preparation, creating a problem situation, organizing group and individual discussions, reflection and final generalization. In this process, the teacher paves the way for students' personal research, encouraging them to think critically and creatively. Also, the use of modern information technologies, interactive methods and innovative techniques increases efficiency.

Experiences conducted in higher educational institutions of Uzbekistan show that in classes organized on the basis of interactive methods and a facilitative approach, students' abilities to think independently, analyze logically and solve problem situations increase significantly. For example, in experimental lessons held at Fergana State University, 70 percent of students were able to successfully complete independent analytical tasks, while in the traditional approach this figure was 45 percent.

Foreign experiences also confirm the effectiveness of this approach. In the US, Finland and South Korea, the teacher plays the role of a ‘facilitator’, ensuring the active participation of the student in the learning process. In these countries, cognitive competence is recognized as a key professional skill.

Pedagogical experience shows that in classes organized on the basis of a facilitative approach, students' skills in independent thinking, drawing logical conclusions, working with a group, and freely expressing their opinions are significantly

ISSN: 2776-0987 Volume 6, Issue 9, September – 2025

developed. In such classes, the teacher involves students in free discussion, ensuring their active participation in the learning process. As a result, favorable conditions are created for the formation of a high level of cognitive competence in students.

In conclusion, organizing education on the basis of a facilitative approach is of great importance in developing the cognitive competence of future teachers. This technology develops independent thinking, problem-solving, reflection, and creative approach skills in students.

Organizing the educational process on the basis of a facilitative approach is of great importance in developing the cognitive competence of future teachers. This approach serves to develop independent research, critical, and creative thinking in students. The widespread use of the technologies highlighted in the article is recognized as one of the effective ways to improve the quality of education, form the personality of a modern teacher, and develop their professional competencies.

References

1. Azlarov. T., Mansurov. X., Matematik analiz. T.: «O‘zbekiston».1t: 1994, 2t. 1995
2. Toshmetov G. Matematik analiz. O’quv qo’llanma. T.: TDPU. 2005y.
3. J.O.Tolipova. Pedagogik kvalimetriya moduli boyicha ma’ruzalar matni va amaliy mashg’ulotlar. -T.: “TDPU”, 2015, -108 bet.
4. A.A.Abduqodirov, F.A.Astanova, F.A.Abduqodirova. Case-study uslubi: nazariya, amaliyot va tajriba. -T.: “Tafakkur qanoti”, 2012, -134 bet.
5. Sh A. U. The main approaches to the formation of the control action in younger schoolchildren in the process of teaching mathematics //INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 8.036. – 2022. – Т. 11. – №. 11. – С. 142-150.
6. Абдурахмонов У. Ш. О ПОСТАНОВКЕ И ИССЛЕДОВАНИЮ ОДНОЙ КРАЕВОЙ ЗАДАЧИ ДЛЯ УРАВНЕНИЯ ТРЕТЬЕГО ПОРЯДКА ПАРАБОЛО-ГИПЕРБОЛИЧЕСКОГО ТИПА В ТРЕУГОЛЬНОЙ ОБЛАСТИ С ТРЕМЯ ЛИНИЯМИ ИЗМЕНЕНИЯ ТИПА //E Conference Zone. – 2022. – С. 118-121.
7. Abdurahmonov U. FUNKSIYA HOSILASI GEOMETRIK VA MEXANIK MA’NOLARI //Журнал интегрированного образования и исследований. – 2022. – Т. 1. – №. 6. – С. 135-138.

8. Абдурахмонов У. Ш. О КРАЕВОЙ ЗАДАЧЕ ДЛЯ УРАВНЕНИЯ ТРЕТЬЕГО ПОРЯДКА ПАРАБОЛО-ГИПЕРБОЛИЧЕСКОГО ТИПА В ТРЕУГОЛЬНОЙ ОБЛАСТИ. – 2022.
9. Abdurahmonov U. EKSTREMAL MASALALARNI YECHISHDA TENGSIZLIKLAR USULIDAN FOYDALANISH //Eurasian Journal of Academic Research. – 2022. – Т. 2. – №. 12. – С. 1239-1242.
10. Abduraxmonov U. S., No‘monova D. UMUMTA’LIM MAKTABLARI MATEMATIKA DARSLARIDA ZAMONAVIY DIDAKTIK VOSITALARINING QO ‘LLANILISHI //Новости образования: исследование в XXI веке. – 2023. – Т. 1. – №. 9. – С. 160-165.
11. Abdurahmanov U. S. Application of Modern Information Technologies in Teaching Mathematics in General Education Schools //INTERNATIONAL JOURNAL OF INCLUSIVE AND SUSTAINABLE EDUCATION. – 2023. – Т. 2. – №. 3. – С. 20-24.
12. Sh A. U., Umarjonova S. A. TA’LIMNI BAHOLASHDA INNOVATSION YONDASHUV. PIRLS BAHOLASH DASTURI //University Research Base. – 2024. – С. 95-96.
13. Abduraxmonov U. UMUMTA’LIM MAKTABLARIDA O’QUVCHILARNING MATEMATIKAGA KOGNITIV QIZIQISHLARINI RIVOJLANTIRISHNING ZAMONAVIY PEDAGOGIK TEXNOLOGIYASI //University Research Base. – 2024. – С. 93-94.
14. Abduraxmonov U., Musayeva S. BOSHLANG ‘ICH TA’LIMDA INNOVATSION JARAYONNING PEDAGOGIK ASOSLARI //University Research Base. – 2024. – С. 91-92.
15. Abduraxmonov U., Temirova M. BOSHLANG ‘ICH TA’LIMDA INTEGRATSIYA. O ‘QUVCHINI MUSTAQIL FIKRLASHGA YO ‘NALTIRISHDA INTEGRATSIYALASHGAN TA’LIMNING ROLI //University Research Base. – 2024. – С. 87-88.
16. Sh A. U., Valijonova Z. A. BOSHLANG ‘ICH TA’LIMDA INNOVATSION YONDASHUV //University Research Base. – 2024. – С. 89-90.
17. Umidjon A. CONDITIONS FOR THE FORMATION OF STUDENTS'COGNITIVE INTERESTS //JOURNAL OF MULTIDISCIPLINARY BULLETIN. – 2023. – Т. 6. – №. 5. – С. 357-362.
18. Абдурахманов У. АКТИВИЗАЦИЯ ПОЗНАВАТЕЛЬНОГО ИНТЕРЕСА УЧАЩИХСЯ К МАТЕМАТИКЕ В СРЕДНЕЙ ШКОЛЕ.

ISSN: 2776-0987 Volume 6, Issue 9, September – 2025

19. Umidjon A., Oghiloy M. SCIENTIFIC AND THEORETICAL BASES OF ORGANIZING EXTRACURRICULAR ACTIVITIES //PEDAGOGICAL SCIENCES AND TEACHING METHODS. – 2023. – С. 341.
20. Abduraxmonov U. UMUMTA'LIM MAKTABLARIDA O'QUVCHILARNING MATEMATIKAGA KOGNITIV QIZIQISHLARINI RIVOJLANTIRISHNING ZAMONAVIY PEDAGOGIK TEXNOLOGIYASI //University Research Base. – 2024. – С. 93-94.
21. Shoqosim o'g'li A. U. et al. Technologies For Improving The Quality Of Educational Results Of Schoolchildren By Developing A Personalized Model Of Teaching Mathematics Through Interactive Stories //Journal of Positive School Psychology. – 2022. – Т. 6. – №. 11. – С. 1354-1365.
22. Shoqosim o'g'li A. U. UMUMTA'LIM MAKTABLARIDA MATEMATIKA FANINI O 'QITISHDA MODELLASHTIRISH METODLARI VA ULARNING KLASSIFIKATSIYASI //ILM SARCHASHMALARI. – С. 104.