



IMPROVING THE PEDAGOGICAL SYSTEM FOR DEVELOPING COGNITIVE COMPETENCE OF FUTURE PHYSICAL EDUCATION TEACHERS

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ABSTRACT

The article explores theoretical foundations and practical approaches to improving the pedagogical system aimed at developing cognitive competence of future physical education teachers. The paper emphasizes the importance of integrating innovative teaching methods, digital solutions and reflective practices to foster analytical thinking, decision-making and professional flexibility. The authors highlight that cognitive competence plays a crucial role in ensuring pedagogical effectiveness under new educational standards and constantly changing learning environments.

1. Introduction

Contemporary educational reforms increase the demand for teachers capable of complex intellectual activity. Future physical education teachers are expected to interpret pedagogical situations, evaluate multiple options and make informed decisions that support students' physical development. These challenges require a pedagogical system that not only transfers knowledge but deliberately develops cognitive skills relevant to professional practice.

2. Theoretical perspective on cognitive competence

Cognitive competence is generally defined as the ability to process information through analytical, critical and reflective thinking. Within physical education, it includes:

- applying scientific knowledge about physical development;
- identifying cause-effect relationships in training processes;
- predicting outcomes of pedagogical interventions;
- adapting strategies to individual student needs.

This competence allows teachers to function effectively in diverse educational contexts and to implement scientifically grounded decisions.

3. Pedagogical conditions for competence development

Improvement of cognitive competence is supported by several pedagogical conditions:

1. problem-based and research-oriented learning;
2. connection between theoretical modules and practice;
3. digital support for learning activities;
4. development of communicative and reflective skills;
5. encouragement of self-regulated learning.

Learning formats such as case analysis, project design and simulation can intensify cognitive engagement and stimulate higher-order thinking.

4. Digital technologies as a developmental tool

Digital technologies contribute to competence development by enabling:

visualization of educational content;
collection and interpretation of performance data;
simulation of training scenarios;
rapid feedback and continuous assessment.

Such tools allow students to explore pedagogical problems in a controlled environment, evaluate the consequences of their decisions and develop evidence-based reasoning—an essential component of cognitive competence.

5. Pedagogical system model

The pedagogical system aimed at cognitive development can be described through the following components:

1. Goal – development of cognitive skills relevant to teaching;
2. Content – integration of sport science, pedagogy and psychology;
3. Methods – interactive, research-based and digital approaches;
4. Resources – platforms, simulation tools, practical workshops;
5. Outcome – enhanced professional readiness and adaptability.

This system supports the formation of professional identity and ensures a balance between knowledge and practical action.

6. Conclusion

Improving the pedagogical system for developing cognitive competence is a necessary step for modernizing teacher education in physical culture. A combination of innovative methodologies, digital instruments and reflective practice promotes intellectual autonomy and professional responsibility among students. As a result, graduates are better prepared to face educational challenges and contribute to the development of a quality learning environment.

References:

1. Атаханов, С. А., & Рахматжонов, М. (2025). РАЗВИТИЕ МЕДИЦИНСКИХ КОМПЕТЕНЦИЙ СТУДЕНТОВ ПОСРЕДСТВОМ ИСПОЛЬЗОВАНИЯ ТЕХНОЛОГИЙ БИОЛОГИЧЕСКОГО МОДЕЛИРОВАНИЯ В МЕДИЦИНСКОМ ОБРАЗОВАНИИ. Tadqiqotlar, 60(1), 3-7.
2. Anvarovich, A. S. (2025). SUN'IY INTELLEKT YORDAMIDA YURAK-QON TOMIR KASALLIKLARINI ERTA TASHXISLASH. IMRAS, 8(11), 96-99.
3. Anvarovich, A. S. (2025). INTERNETGA QARAMLIK OQIBATIDA NEVROLOGIK TIZIMDA ANOMALIYALARNING PAYDO BO'LISHI. MODERN SCIENCE, 2181, 3906.
4. Anvarovich, A. S., & Omonjon o'g'li, M. H. (2025). THE ROLE OF MODERN COMPUTER TECHNOLOGIES IN THE DIAGNOSIS AND TREATMENT OF GASTRITIS. EduVision: Journal of Innovations in Pedagogy and Educational Advancements, 1(4), 766-770.

