

THE INTEGRATION OF INNOVATIVE TECHNOLOGIES AND FACTORS OF EDUCATORS' PROFESSIONAL DEVELOPMENT IN ORGANIZING PEDAGOGICAL-PSYCHOLOGICAL SUPPORT IN EDUCATION

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Abstract

This article analyzes, in close interconnection, the issues of organizing pedagogical and psychological support in the modern education system, introducing innovative information technologies, and ensuring the professional development of teaching staff. An integrated model combining these three directions is proposed, and the quantitative results achieved in terms of education quality, learners' adaptability, and teachers' competence are presented through tables and charts. Specific recommendations are developed for creating an inclusive educational environment and improving the system of continuous professional development.

Keywords: Pedagogical and psychological support, inclusive education, innovative technologies, digital educational tools, professional development, competence, quality of education.

Introduction

TA'LIMDA PEDAGOGIK-PSIXOLOGIK YORDAMNI TASHKIL ETISHDA
INNOVATSION TEXNOLOGIYALAR VA PEDAGOGLARNING KASBIY
RIVOJLANISH OMILLARINING UYG'UNLASHUVI

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“Pedagogika, psixologiya va ta’lim texnologiyalari” kafedrasi katta o‘qituvchisi
Jizzax viloyati pedagogik mahorat markazi, Jizzax, O‘zbekiston

Annotatsiya

Ushbu maqolada zamonaviy ta'lim tizimida pedagogik-psixologik yordamni tashkil etish, innovatsion axborot-texnologiyalarini joriy qilish hamda pedagog kadrlarning kasbiy rivojlanishini ta'minlash masalalari uzviy bog'liqlikda tahlil qilinadi. Tadqiqotda ushbu uch yo'nalishning integratsiyalashgan modeli taklif etilib, uning amaliyotga tatbiq etilishi natijasida ta'lim sifati, o'quvchilarning moslashuvchanligi va pedagoglar kompetentligi bo'yicha erishilgan miqdoriy natijalar jadval va diagrammalar asosida yoritiladi. Muallif tomonidan inklyuziv ta'lim muhitini yaratish, raqamli vositalardan foydalangan holda monitoring olib borish va uzluksiz kasbiy rivojlantirish tizimini takomillashtirish bo'yicha aniq tavsiyalar ishlab chiqilgan.

Kalit so'zlar: pedagogik-psixologik yordam, inklyuziv ta'lim, innovatsion texnologiyalar, raqamli ta'lim vositalari, kasbiy rivojlanish, kompetentlik, ta'lim sifati.

Аннотация

В статье в тесной взаимосвязи анализируются вопросы организации педагогико-психологической поддержки в современной системе образования, внедрения инновационных информационных технологий и обеспечения профессионального развития педагогических кадров. Предложена интегрированная модель трёх направлений, а результаты её апробации по показателям качества образования, адаптивности обучающихся и компетентности педагогов представлены в виде таблиц и диаграмм. Разработаны конкретные рекомендации по созданию инклюзивной образовательной среды и совершенствованию системы непрерывного профессионального развития.

Ключевые слова: педагогико-психологическая поддержка, инклюзивное образование, инновационные технологии, цифровые образовательные средства, профессиональное развитие, компетентность, качество образования.

Introduction

The rapidly changing needs of modern society are placing new demands on the education system. In particular, issues such as organizing pedagogical and psychological support tailored to the individual needs of each learner, implementing innovative technologies in the educational process, and continuously enhancing the professional skills of teaching staff have become increasingly relevant. Although these three areas may appear distinct, they are closely interconnected in practice, and their integration determines the overall effectiveness of the educational process.

International experience demonstrates that relying solely on pedagogical support or merely implementing technological solutions does not yield the expected results; a systematic integration of all three factors is essential. The aim of this article is to develop a practical model that integrates these three areas and to substantiate its effectiveness based on empirical data.

RESEARCH METHODOLOGY AND LITERATURE REVIEW

The study employed methods including theoretical analysis, comparative analysis, surveys, and pedagogical observation. Practical pilot activities were conducted during the 2025–2026 academic year in six general education institutions operating under the Jizzakh Region Pedagogical Skills Center, involving a total of 240 students and 48 educators. The experiment was organized in two stages: initial assessment and final assessment.

The theoretical framework was based on L.S. Vygotsky's theory of the zone of proximal development, modern concepts of inclusive education, and the competency-based approach to developing pedagogical competence.

RESULTS AND DISCUSSION

An integrated model combining three areas was developed during the study (see Diagram 1). At the core of the model lies a unified support mechanism that integrates pedagogical-psychological assistance, innovative technologies, and professional development; this mechanism ensures three key outcomes: improved educational quality, student adaptation, and enhanced pedagogical competence.

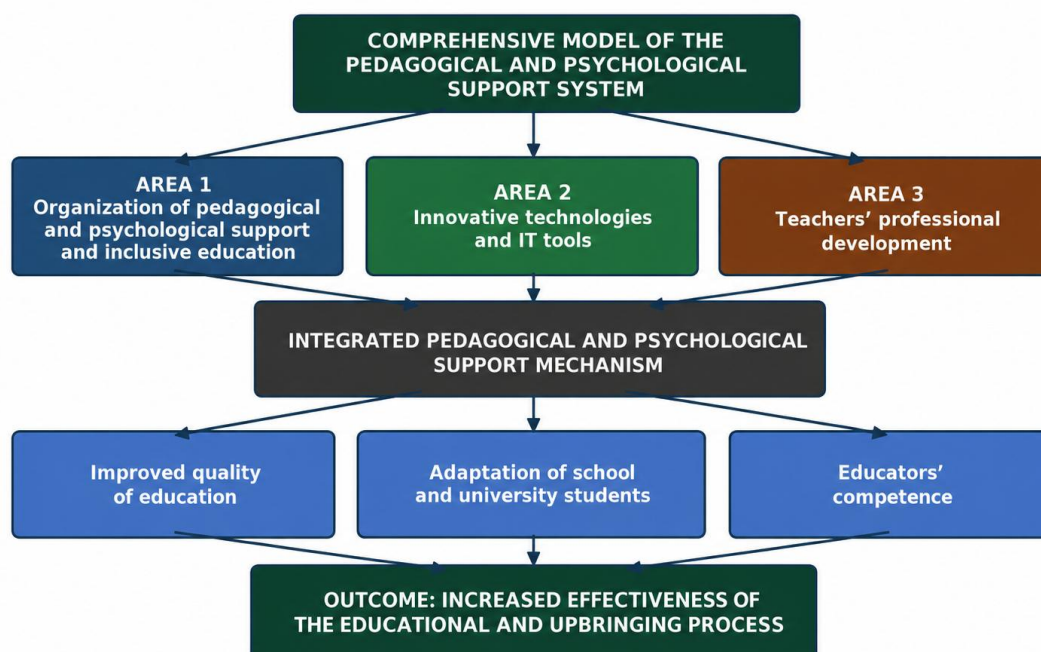


Diagram 1. An integrated model combining pedagogical-psychological support, innovative technologies, and professional development.

The specific tasks, tools and methods employed, and expected results for each area are summarized in Table 1.

Table 1. Tasks, tools, and expected results by area

Track	Core Objective	Tools/methods used	Expected outcome
Track 1: Pedagogical-psychological support and inclusive education	Ensuring psychological safety and an inclusive environment in education	Individual counseling, psychodiagnostics, tutoring, customized program	Improved socio-emotional adjustment and academic performance of students
Track 2: Innovative technologies and IT tools	Improving the quality of education through digital tools	LMS platforms, interactive whiteboard, AI-based monitoring, online testing	Transparency of the educational process and an individualized approach
Track 3: Professional development of educators	Continuously enhancing the competence of educational psychologists	Training, masterclass, mentoring, reflective seminars	Enhanced staff qualifications and professional stability

The results of the experimental trials demonstrated that the application of the proposed integrated model led to significant improvements across all observed indicators (see Table 2 and Diagram 2). Specifically, the indicator for the quality of education rose from 58% to 79% (an increase of 21 percentage points), while educator competence increased from 61% to 88% (an increase of 27 percentage points). The greatest growth was recorded in the indicator for socio-psychological well-being (+32 percentage points), indicating that the pedagogical-psychological support system had a direct positive impact on the students' emotional state.

Table 2. Diagnostic results of the experimental trials

Indicator	At the beginning of the experiment (%)	At the end of the experiment (%)	Growth (percentage points)
Education quality indicator	58	79	+21
Student engagement	54	82	+28
Level of adaptability	49	76	+27
Teacher competence	61	88	+27
Socio-psychological comfort	52	84	+32

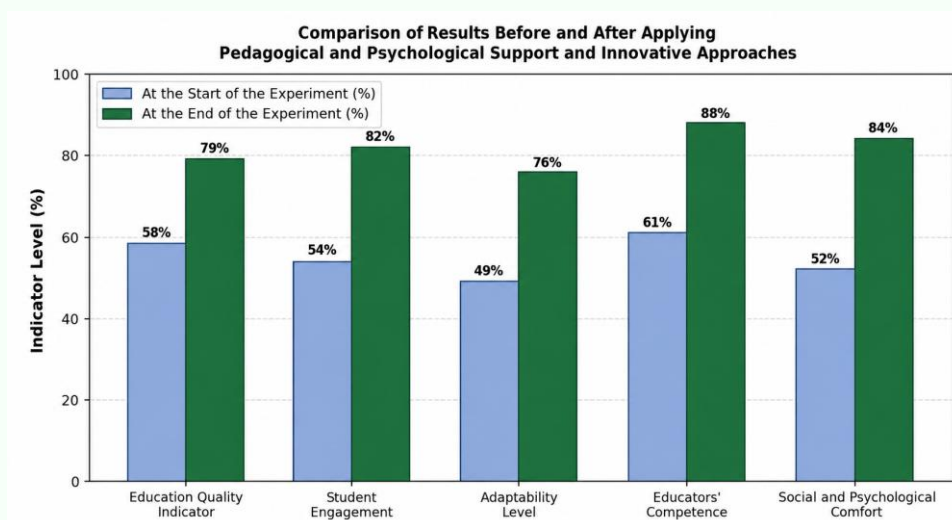


Figure 1. Comparative analysis of indicators recorded at the beginning and end of the experiment.

An analysis of the results indicates that organizing pedagogical-psychological support, implementing innovative technologies, and ensuring the professional development of educators yield the best results when carried out as a unified

system rather than in isolation. In particular, monitoring the individual development dynamics of each student through digital tools enabled educational psychologists and teachers to make timely, informed decisions, which in turn ensured steady growth in educational quality indicators.

At the same time, regular training sessions and mentorship programs focused on educators' professional development accelerated the pace at which they mastered and applied new methodologies. Consequently, significant growth was observed in indicators of educator competence.

CONCLUSION

Based on the research findings, the following conclusions were drawn:

- 1) Pedagogical-psychological support, innovative technologies, and the professional development of educators should be viewed as an integrated, interconnected system rather than as separate, isolated elements;
- 2) the proposed integrated model resulted in an average increase of 21–32 percentage points in the quality of education, student adaptability, and teacher competence;
- 3) it is advisable to implement digital monitoring tools more widely to further improve the inclusive education environment;
- 4) it is necessary to strengthen—at an institutional level—mentoring and training programs that ensure the continuous professional development of teaching staff.

In conclusion, the implementation of modern approaches in the educational process leads to sustainable, high-quality results only through a comprehensive integration of pedagogical, psychological, and professional factors, rather than through purely technological or methodological solutions alone.

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