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METHODOLOGICAL JOURNAL****MENTAL ENLIGHTENMENT SCIENTIFIC –
METHODOLOGICAL JOURNAL**<http://mentaljournal-jspu.uz/index.php/mesmj/index>**INSTITUTIONAL TRANSFORMATION OF PEDAGOGICAL HIGHER
EDUCATION INSTITUTIONS: ORGANIZATIONAL MECHANISMS AND
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ABOUT ARTICLE

Key words: pedagogical personnel training, institutional transformation, competency-based education, digital learning environment, quality of education.

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Abstract: This article develops and scientifically substantiates a phased institutional transformation model aimed at the sustainable development of pedagogical higher education institutions within the system of pedagogical personnel training. The study provides a comprehensive systemic analysis of key components, including institutional diagnostics, competency-based curriculum modernization, enhancement of academic staff capacity, digital transformation, and quality of education management. The proposed model integrates these components into a unified institutional framework, ensuring consistency, sustainability, and effectiveness in improving the quality of pedagogical personnel training. The scientific novelty lies in the development of a holistic transformation model combining educational content, human resource potential, digital infrastructure, and quality assurance mechanisms.

Introduction. In the context of the 21st century, the higher education system is undergoing profound structural and institutional transformations driven by globalization

processes, rapid advancement of digital technologies, and evolving labor market demands. These factors necessitate the modernization of higher education institutions and the reorganization of their activities in accordance with contemporary socio-economic requirements.

This transformation is particularly significant within the system of pedagogical personnel training, where the need to ensure the quality, competitiveness, and adaptability of future teachers becomes increasingly actual.

The integration of digital technologies into education is not limited to technical modernization; rather, it represents a complex and multi-dimensional transformation process affecting educational content, pedagogical methodologies, and institutional management systems.

Despite the existence of numerous studies focusing on individual aspects of educational transformation, the issue of comprehensive institutional transformation of pedagogical higher education institutions remains insufficiently explored.

Therefore, the present study aims to develop and theoretically substantiate a comprehensive institutional transformation model based on a systemic and integrative approach.

The widespread introduction of digital technologies in the field of education is significantly transforming the forms and methods of organizing the educational process. At the same time, digital transformation is not merely a technical upgrade but a comprehensive process of change that encompasses the content of education, the management system, and pedagogical activities.

International research extensively covers the issue of developing the system of pedagogical personnel training, where competency-based education models, digital learning environments, and mechanisms for ensuring the quality of education occupy an important place. However, most existing studies are limited to analyzing individual elements of this process, and the mechanisms for comprehensive institutional transformation of pedagogical higher education institutions at the institutional level have not been sufficiently addressed.

The scientific novelty of the study consists in the development of a comprehensive institutional transformation model that integrates educational content, pedagogical personnel potential, digital infrastructure, and education quality management into a unified systemic mechanism, ensuring the sustainable development of pedagogical higher education institutions.

The purpose of this article is to develop a step-by-step institutional transformation model aimed at the development of pedagogical higher education institutions and to scientifically substantiate its theoretical and methodological foundations.

The research is based on a systemic, integrative, and comparative methodological approach, which allows the higher education system to be examined as a complex socio-pedagogical system.

The following research methods were employed:

- systemic analysis;
- comparative analysis;
- modeling;
- analysis of scientific sources.

The object of the study is the system of pedagogical higher education institutions, while the subject comprises institutional transformation processes and their impact on education quality indicators.

2. Analysis of Scientific Sources. Modern research emphasizes competency-based education, digital transformation, and quality assurance as key directions. Competency-based education ensures the development of knowledge, skills, and professional readiness. Digital technologies contribute to individualized learning and effective monitoring of educational outcomes. However, existing studies often focus on isolated components, lacking a comprehensive institutional approach.

The competency-based education model is regarded as an important theoretical and practical foundation for modernizing the higher education system. According to Weinert (2001), competence is defined as the integration of an individual's knowledge, skills, and personal qualities, representing the ability to effectively perform complex professional tasks [5]. From this perspective, competency-based education serves to develop not only students' theoretical knowledge but also their practical professional readiness.

Researchers emphasize that competency-based curricula enable the alignment of educational content with labor market demands. In studies conducted by Jakoep Ezra Harianto, it is noted that competency-based curricula play a significant role in preparing students to meet the requirements of the global labor market [9].

The implementation of a competency-based education model requires the revision of curricula, the clear definition of learning outcomes, and the improvement of assessment systems.

In contemporary research, the digital transformation of the education system is also considered an important scientific direction. In the studies by Vida Davidaviciene and Anna Limanovskaja, it is emphasized that the integration of digital technologies in higher education institutions enables the modernization of the educational process, the individualization of learning, and the enhancement of education quality monitoring [10].

At the same time, hybrid learning models are regarded as an essential component of the modern pedagogical education system. According to Graham's research, hybrid learning is organized on the basis of integrating traditional classroom activities with online learning technologies and contributes to increasing students' active engagement in the educational process [3].

The issue of digital competencies in the pedagogical personnel training system is also of particular importance. The TPACK model developed by Mishra and Koehler demonstrates the possibility of creating an effective learning environment through the integration of teachers' technological, pedagogical, and content knowledge [6]. This approach provides an important theoretical foundation for the effective integration of digital technologies into the educational process.

Systems for ensuring the quality of education are likewise a key component of higher education transformation. Harvey and Green describe the concept of education quality as a multifaceted category and analyze it in relation to educational outcomes, the educational process, and the effectiveness of institutional management [4].

However, the majority of international studies are limited to analyzing individual elements of the pedagogical personnel training system and have not sufficiently addressed the issues of comprehensive institutional transformation of pedagogical higher education institutions at the institutional level. This situation demonstrates the necessity of developing a comprehensive transformation model that encompasses the content of education, the potential of pedagogical personnel, digital infrastructure, and education quality management as a single systemic whole in the development of pedagogical universities.

At the same time, unlike the analyzed studies, the present work examines the transformation of pedagogical higher education institutions on the basis of a comprehensive institutional approach, with all main components integrated with one another and developed within the framework of a single model.

3. Research Methodology. The research is based on a systemic, integrative, and comparative approach. Methods include systemic analysis, comparative analysis, modeling, and

literature review. The object of the study is pedagogical higher education institutions, and the subject is their institutional transformation processes.

The object of the study is the education system of higher education institutions specialized in pedagogical personnel training. The subject of the study consists of the institutional transformation processes aimed at the development of pedagogical universities and the mechanisms of their impact on the quality of education.

The study employed systemic and comparative analysis, analysis of scientific sources, and modeling methods. Through systemic analysis, the interrelationships among the main elements of the university education system — educational content, pedagogical technologies, digital environment, the potential of professors and teachers, and management mechanisms — were examined, and internal and external factors influencing transformation were identified.

The comparative analysis method was used to study the differences between the traditional education model and education models based on digital transformation. In the analysis process, criteria such as forms of educational organization, educational technologies, educational content, student activity, educational trajectories, and the assessment system were taken as the basis.

Table 1. Comparative Analysis of Traditional and Digital Transformation-Based Education Models

Analysis Criterion	Traditional Education Model	Transformed Digital Education Model
Organization of Education	Classroom-based, traditional lectures and seminars	Hybrid and online learning environment
Educational Content	Based on standard curricula	Flexible and dynamic educational programs
Educational Technologies	Printed materials and classical methods	LMS, Moodle, digital platforms
Educational Management	Paper-based document circulation	Electronic management systems
Student Activity	Passive participation	Interactive and collaborative learning
Educational Trajectory	Uniform for all students	Individual educational trajectory
Assessment System	Traditional examinations	Rating and digital assessment systems
Educational Outcomes	Dominance of theoretical knowledge	Competencies and practical skills

In the study, based on the analysis of scientific sources, international literature and documents from organizations such as OECD and UNESCO were examined, and theoretical approaches related to the development of the pedagogical personnel training system were

generalized. Based on the obtained results, a step-by-step institutional transformation model integrating educational content, the potential of pedagogical personnel, digital environment, and quality management was developed. The research process was carried out in the stages of analysis, comparison, and modeling.

Source: Author's development. The results obtained from the example of JSDPU show that the proposed model for the transformation of pedagogical higher education institutions is an effective institutional mechanism that can be applied in practice. This model has a positive impact on the quality of education by integrating educational content, the potential of pedagogical personnel, and the digital environment.

To ensure the reliability of the research results, data obtained from various sources were compared with one another, and methods of theoretical generalization were applied.

2. Table 2. Results of Implementing the Transformation Model at the Example of JSDPU

Transformation Stage	Measures Implemented (at the Example of JSDPU)	Expected / Observed Results
Institutional Diagnostics	Educational programs were analyzed, the potential of professors and teachers was assessed, and the state of digital infrastructure was studied	The university's strengths and weaknesses were identified, and strategic development directions were defined
Transformation of Educational Content	Competency-based curricula were introduced, and the integration of subjects was strengthened	Practical skills and professional competencies were formed in students
Development of Pedagogical Personnel Potential	Advanced training courses and trainings on digital pedagogy were organized for professors and teachers	Teachers' skills in using modern educational technologies increased
Digital Transformation	LMS platforms, electronic journals, and online courses were introduced	The educational process was digitized, and student activity and participation levels increased
Monitoring of Education Quality	Monitoring of educational outcomes, student competencies, and graduate employment was conducted	The quality of education improved, and the competitiveness of graduates in the labor market increased

4. Step-by-Step Transformation Model for Pedagogical Higher Education Institutions. The proposed model is based on the phased implementation of the transformation process. It integrates the main components of the education system as a single institutional mechanism and relies on a comprehensive approach that combines the renewal of educational content, the

development of pedagogical personnel potential, the improvement of digital infrastructure, and the integration of education quality management.

1. Institutional Diagnostics Stage. The initial stage of the transformation process consists of a comprehensive analysis of the university's current state. Through institutional diagnostics, its development potential, strategic objectives, and priority directions are identified. At this stage, educational programs, the potential of pedagogical personnel, digital infrastructure, and educational outcomes are assessed in a comprehensive manner.

Educational programs are analyzed in terms of their compliance with modern standards and labor market requirements, the level of competency-based approach and subject integration, as well as their orientation toward digital technologies and practical application. This process is carried out through content analysis and sociological surveys.

The potential of pedagogical personnel is assessed on the basis of their scientific degrees, pedagogical competencies, research activity, and skills in using innovative technologies. At the same time, the university's digital infrastructure is analyzed from the perspective of LMS platforms, digital resources, and electronic management systems.

Educational outcomes are evaluated based on students' academic performance, the employment rate of graduates, and employers' feedback, which makes it possible to identify the university's strengths and weaknesses.

2. Stage of Transforming Educational Content. Based on the results of institutional diagnostics, the process of modernizing educational content begins. In modern pedagogical education, this process relies on a competency-based approach, interdisciplinary integration, and digital technologies.

Competency-based education is aimed at forming not only theoretical knowledge but also practical skills in students, with learning outcomes expressed through clearly defined competencies. Critical thinking, problem-solving, and digital literacy occupy an important place among the key competencies. This approach ensures the competitiveness of students in the labor market.

Digital learning technologies are an essential component of the university education system and contribute to increasing the efficiency of the educational process through LMS platforms and online learning tools. They enable the individualization of education, the enhancement of student activity, and the automation of educational monitoring.

3. Stage of Developing the Potential of Pedagogical Personnel. Pedagogical personnel are the main driver of university transformation; therefore, their professional development is organized on the basis of the principle of lifelong learning. Advanced training programs cover

modern pedagogical and digital technologies, research methodology, and areas of international scientific cooperation. In addition, grant schemes, rating systems, and award mechanisms are introduced to stimulate the research activity of teachers.

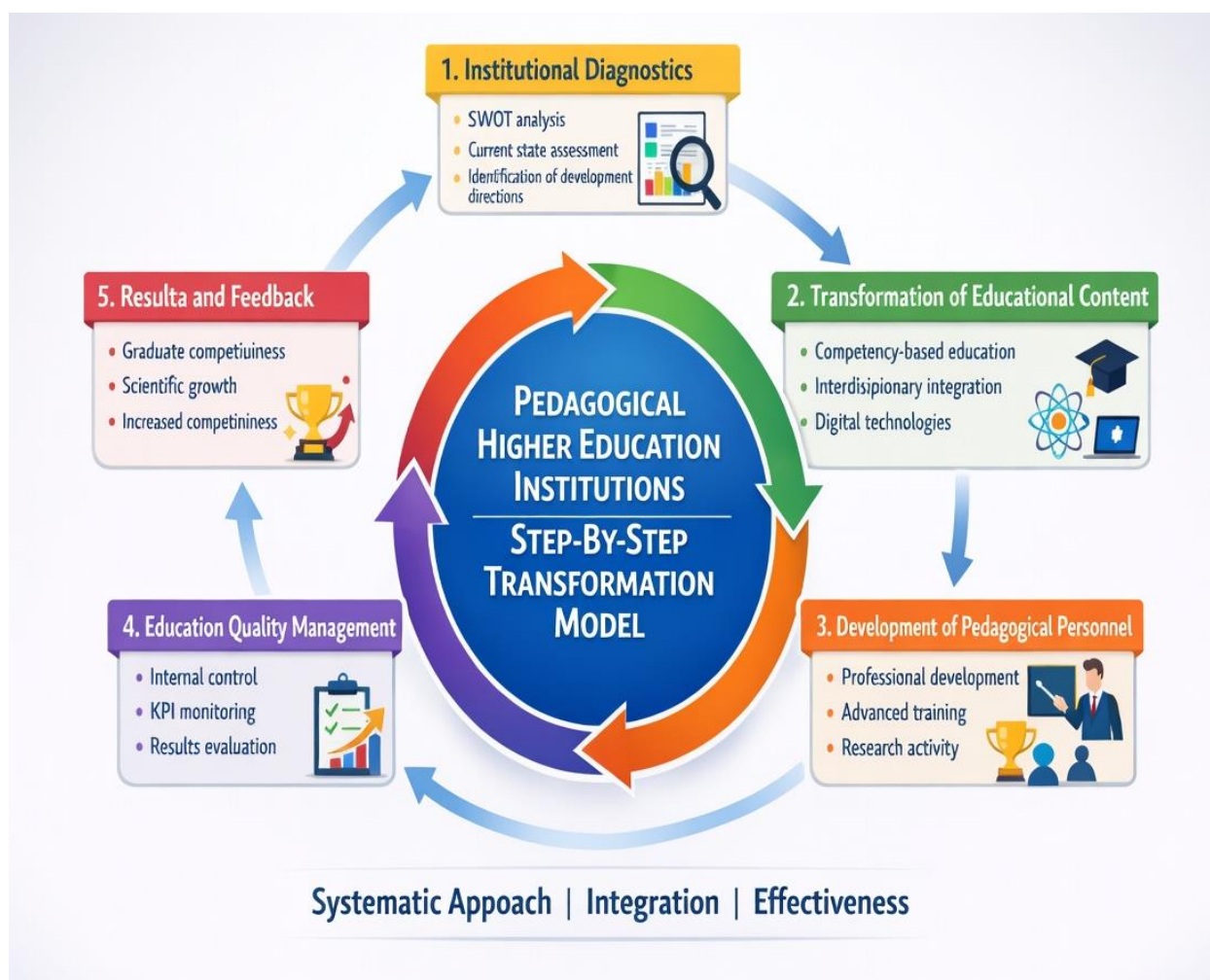
4. Stage of Education Quality Management and Monitoring. During the transformation process, the quality of education is assessed on the basis of continuous monitoring, and an internal quality control system is established in universities. The main indicators taken into account are student competencies, the share of digital education, and the employment rate of graduates. These indicators make it possible to evaluate the effectiveness of the university's activities.

5. Transformation Results. As a result of the step-by-step transformation of pedagogical universities, educational programs are aligned with modern requirements, the potential of pedagogical personnel is enhanced, and a digital learning environment is formed. This strengthens the university's research activity and has a positive impact on the quality of pedagogical personnel training by increasing the competitiveness of graduates.

5. Discussion. The step-by-step transformation model for pedagogical higher education institutions proposed in this study provides a theoretical foundation for the comprehensive institutional mechanism of modernizing the pedagogical personnel training system. The research results indicate that the effective development of modern higher education institutions is not limited to updating educational content alone. The transformation of universities must be carried out as a multi-component system that encompasses educational programs, the potential of pedagogical personnel, digital infrastructure, and education quality monitoring, which demonstrates the necessity of organizing it on the basis of a comprehensive institutional approach. If implemented in practice, the proposed model will make it possible to improve the quality of education, develop the digital environment, and ensure the adaptability of graduates to the labor market.

International research emphasizes that the modernization of universities is associated with multifaceted institutional changes. The OECD's "Future of Education and Skills 2030" concept identifies competency-based education, the integration of digital technologies, and the monitoring of learning outcomes as priority directions. Similarly, UNESCO reports highlight digital transformation as an important factor in enhancing the quality and individualization of education. The proposed model substantiates mechanisms for the development of pedagogical higher education institutions in harmony with these international trends.

Transformation Model of Pedagogical Higher Education Institutions



At the same time, the study has certain limitations. In particular, the proposed model is primarily based on theoretical analysis and conceptual approaches; therefore, empirical studies are required to test its effectiveness in practice. In future research, analyzing the processes of implementing the transformation model in pedagogical universities and statistically assessing its impact on the quality of education and the professional readiness of graduates will be among the important scientific tasks.

6. Conclusion. The results of the study demonstrate that the transformation of pedagogical higher education institutions requires a comprehensive and systemic approach encompassing all key components of university activities. The proposed institutional model ensures the modernization of educational content, enhancement of pedagogical personnel capacity, and development of digital infrastructure, thereby contributing to improving the quality of education and increasing the competitiveness of graduates in the labor market.

The findings of the research can serve as a methodological basis for developing strategies for higher education reform and for improving institutional management mechanisms in pedagogical universities.

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