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STIMULATING SCIENTIFIC AND EDUCATIONAL ACTIVITIES OF UKRAINIAN HIGHER EDUCATION TEACHERS FOR SUSTAINABLE DEVELOPMENT AND INNOVATIVE COMPETITIVENESS

ESTIMULACIÓN DE LAS ACTIVIDADES CIENTÍFICAS Y EDUCATIVAS DE DOCENTES UNIVERSITARIOS EN UCRANIA PARA DESARROLLO SOSTENIBLE E INNOVACIÓN COMPETITIVA

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ABSTRACT

In the article, the prerequisites for the study of the problem of stimulating the scientific and educational activity of a higher school teacher are identified and justified, and the factors that stimulate his activity are determined. Effectiveness monitoring has been developed as the basis of the mechanism for stimulating the scientific and educational activity of a higher school teacher. Pedagogical conditions for stimulating the scientific and educational activity of a higher school teacher are defined and substantiated. An experimental trial of monitoring the effectiveness and pedagogical conditions of stimulating the teacher's scientific and educational activities was carried out and its results were evaluated. The epistemological reasons for the need to evaluate the results of higher education teachers' scientific and educational activities from the standpoint of their effectiveness have been identified and characterized. The provisions on the necessity and feasibility of applying pedagogical conditions in the practice of stimulating higher education teachers' scientific and educational activities aimed at their professional and personal development have been substantiated. The presented contradictions, prerequisites, and principles for developing a mechanism and constructing pedagogical conditions for stimulating higher education teachers' scientific and educational activities develop ideas about the possibility of their use in the process of professional development of research and teaching staff.

Keywords:

Educational Activity, Scientific, Higher School, Pedagogical Conditions.

RESUMEN

En el artículo se identifican y justifican los requisitos previos para el estudio del problema de la estimulación de la actividad científica y educativa de un docente universitario, y se determinan los factores que estimulan su

actividad. Se ha desarrollado un sistema de monitoreo de la eficacia como base del mecanismo para estimular la actividad científica y educativa del docente universitario. Se definen y fundamentan las condiciones pedagógicas para estimular la actividad científica y educativa del docente universitario. Se realizó una prueba experimental del monitoreo de la eficacia y de las condiciones pedagógicas para estimular las actividades científicas y educativas del docente, evaluándose sus resultados. Se han identificado y caracterizado las razones epistemológicas de la necesidad de evaluar los resultados de la actividad científica y educativa de los docentes de educación superior desde el punto de vista de su eficacia. Se han fundamentado las disposiciones sobre la necesidad y la viabilidad de aplicar condiciones pedagógicas en la práctica de la estimulación de la actividad científica y educativa de los docentes universitarios, orientadas a su desarrollo profesional y personal. Las contradicciones, los requisitos previos y los principios presentados para el desarrollo de un mecanismo y la construcción de condiciones pedagógicas para estimular la actividad científica y educativa de los docentes universitarios desarrollan ideas sobre la posibilidad de su uso en el proceso de desarrollo profesional del personal docente e investigador.

Palabras clave:

Actividad Educativa, Científica, Educación Superior, Condiciones Pedagógicas.

INTRODUCTION

Higher education is undergoing a constant process of transformation, influenced by state policies, technological advances, and societal demands. This evolving context implies that the teaching profession is also changing, increasing the responsibility of educators for their own professional development and the effectiveness of their academic activities. Chen et al. (2021) provide a concrete analysis of how to stimulate and sustain scholarly activity in teaching-intensive institutions. Their study demonstrates that faculty motivation and engagement depend on clear pedagogical conditions, institutional recognition, and support structures that promote both professional development and research productivity. The implementation of effectiveness monitoring systems allows institutions to evaluate how incentive mechanisms impact academic activity, offering a practical framework to foster faculty professionalization in universities facing simultaneous teaching and research demands.

Similarly, Hellín et al. (2023) emphasize the importance of pedagogical innovation to enhance student motivation and engagement through gamified learning environments. Their findings show that improving the educational experience requires faculty to develop advanced competencies and adaptive skills, reinforcing the idea that modern universities must provide incentives, training, and resources to facilitate the implementation of innovative teaching strategies. In this way, educators become active managers of their own professional growth, contributing to increased educational effectiveness.

The authors Yu & Zin (2023), through a systematic review, highlight how the adaptation of problem-based learning models oriented toward critical thinking requires faculty to have specialized preparation and facilitation skills. The research indicates that institutional mechanisms that stimulate pedagogical innovation and critical thinking development not only benefit students but also strengthen faculty professionalization and research capacity. This finding underscores the interdependence between continuous faculty development, academic effectiveness, and the creation of incentive conditions within the university.

Finally, Sattari-Ardabili & De Hoyos-Guevara (2026) discuss the integration of artificial intelligence in scientific research as an example of technological innovation that requires ethical and responsible management by educators. The adoption of such tools demands not only technical competencies but also critical reflection and awareness of professional responsibility, emphasizing the need for institutional mechanisms that support training and ethically stimulate academic activity. This perspective complements the previous findings, highlighting that faculty professionalization in contemporary universities is built not only through incentives and pedagogical development but also through ethical awareness and the responsible adoption of advanced technologies.

These studies reveal that higher education requires faculty to actively manage their own learning and professional development. The creation of incentive mechanisms, institutional recognition, ethical training, and the adoption of pedagogical and technological innovations are essential factors for ensuring the effectiveness of academic and research activities, consolidating the faculty member's role as an active agent in the transformation of the modern university.

Proceeding from this message, the prognosis of the creation of an effective university presupposes the formation of an effectively working teaching staff, since the image of the university is the total effect of the activities of its scientific and pedagogical team (Brew, 2006).

In this regard, pedagogical theory and educational practice puts forward as a priority the task of continuous professional growth of higher school teachers. Hence, the implementation of mechanisms and procedures that stimulate the scientific and educational activity of the teacher

and increase its effectiveness in the practice of higher education institutions is the most important potential resource for the professional improvement of teachers, the development of higher education, and a factor in economic and social transformations in society (Johnstone, 2010).

Consequently, in the theory and practice of higher education, there are certain prerequisites that allow us to consider the problem stated for research as an actual one (Altbach et al., 2009; Shulha et al., 2022). The analysis of the theoretical aspects of the investigated problem showed that the information field contains various works dedicated to the study of the effectiveness of the functioning of educational systems at different levels. Yes, the views of scientists are presented (Kablova et al., 2021; Kuzmenko et al., 2025)

Purposeful study of the scientific developments of the specified authors allowed us to make four generalizations. The first is related to the effective management of a state-important, constantly developing and, above all, complex social object - the system of higher education. Information, its quantity and quality, can be the basis for forecasting the development of this system, the information gives a complete picture of the current state of the system, its balance or imbalance with the environment. Based on this, the researchers suggest using such procedures as control and stimulation in the practice of higher education management (Malakhov et al., 2024).

The second generalization is related to the search by the authors for the scientific-based definition of the concept of "stimulation", "monitoring", "effectiveness of activity", "effective contract", etc. Many are defined, and the majority of researchers are inclined to consider, for example, stimulation - a function associated with the process of activation of the activity of individual teachers and entire pedagogical teams, which ensures an increase in the effectiveness of their work. Monitoring is considered as a controlled, managed and guided flow of information about the state of the system, which allows you to make adequate management decisions and forecast the development of the system (in our case, managed systems are the university and the activities of teachers). The effectiveness of activities, for example, of teachers, will be determined on the basis of comparing the data of the activity results with the planned data.

An effective contract is considered as an additional agreement to the employment contract between the university administration and the teacher of a stimulating nature, establishing increased obligations for the teacher based on the results of scientific-methodical, scientific-research, and educational activities.

As a result of the analytical work, the following contradictions between:

the need to significantly increase the efficiency of the activities of domestic higher education organizations and the insufficient development of the theoretical and methodological foundations of the management of this process;

the need to consider the scientific and educational activity of a university teacher as an object of stimulation and the insufficient development of the corresponding mechanisms and procedures that allow this function to be performed;

the need to model and organize stimulating conditions and monitoring procedures in the higher education system, aimed at increasing the effectiveness of the scientific and educational activities of teachers, and the lack of scientifically based developments that allow modeling the mentioned conditions and procedures;

the need for scientific-methodological support and psychological-pedagogical support of organizational and evaluation procedures aimed at stimulating the scientific-educational activity of a higher school teacher and the insufficient development of such support and support.

METHODOLOGY

The research problem is formulated as follows: what are the theoretical foundations and practical approaches to solving the problem of increasing the effectiveness of the scientific and educational activity of a higher school teacher by using pedagogical conditions to stimulate it?

The object of research is the scientific and educational activity of a teacher of a higher school.

The subject of the research is the pedagogical conditions for stimulating the scientific and educational activities of the higher school teacher.

The purpose of the study is to theoretically substantiate and experimentally test the pedagogical conditions for stimulating the scientific and educational activity of a higher school teacher.

The hypothesis of the research was the assumption that the effectiveness of the scientific and educational activity of the teacher of the higher school will be noticeably higher if:

the prerequisites for the study of the problem of stimulating the scientific and educational activity of a higher school teacher will be identified and substantiated, the factors that stimulate his activity will be determined;

monitoring of effectiveness will be used as the basis of the mechanism of stimulating the scientific and educational activity of the higher school teacher;

the pedagogical conditions for stimulating scientific and educational activities of the higher school teacher will be determined and substantiated;

the model and pedagogical conditions for stimulating the scientific and educational activity of a higher school teacher will be introduced into the university's work practice.

Appropriate research methods were used at all stages of the work. The first stage included an analysis of regulatory documents on the organization of assessment procedures at the university, pedagogical modeling, and analysis and synthesis of data available in the literature and practical experience. The second stage included methods such as questionnaires and interviews, observation, analysis of the products of the scientific and educational activities of teachers, and experimental methods (ascertaining, formative, and control experiments).

The empirical basis of the study consisted of:

a model and pedagogical conditions for motivating faculty members, as well as relevant scientific and methodological materials, being implemented in the educational process;

data from a theoretical analysis of the types of monitoring and incentives currently used in higher education to assess the effectiveness of university faculty;

the results of a pilot study conducted at a technological university, involving approximately 200 faculty members. Faculty members in the control group planned and evaluated their work based on individual plans, while those in the experimental group were subject to the proposed model and incentive conditions.

Based on the results of the conducted analysis, the prerequisites for studying the stated problem were identified as a priori grounds for implementing incentive and monitoring procedures in university systems aimed at improving the effectiveness of faculty members' research and educational activities. These include:

scientific data on the philosophy of assessment and evaluation procedures applicable to activities in general and activities in the scientific and educational spheres, as well as data on the methods for implementing incentive and evaluation procedures presented in the literature;

ongoing changes in society, culture, and, consequently, the higher education system, affecting the fundamental foundations of higher education and introducing adjustments to the typology of university systems, their goals, and fundamentally transforming the activities of teachers;

the emergence of the higher education system and each individual university as active participants in the market for research, educational, cultural, and educational services, and the positioning of higher education as a sector of the economy;

the emergence of problems and contradictions in the implementation of incentive and evaluation procedures at universities, due to the need to determine the effectiveness of university activities; - the low level of effectiveness of the research and educational activities of the majority of university faculty, due to the insufficient preparation of faculty for work in new conditions, for example, under an effective contract;

the inappropriate use of scientometric data in the practice of assessing the effectiveness of faculty research and educational activities, the lack of scientifically based approaches to organizing incentive processes, the bureaucratization of university management and evaluation procedures;

the impact of globalization, internationalization, integration, as well as regionalization and ethno-culturation on domestic university systems and the activities of faculty;

the need to understand that incentives and monitoring the effectiveness of faculty research and educational activities are essential management tools that help maintain and develop not only the quality of higher education and scientific research, but also the quality of research and teaching staff, facilitating their professional development (Mohrman & Baker, 2008).

The study demonstrates that the effectiveness of a university and its individual faculty cannot be objectively assessed without considering the quality of the educational process and the quality of specialist training at the university. Therefore, incentives should become an effective mechanism for managing not only the effectiveness and quality of higher education, but also a means of managing and self-regulating the professional development of faculty.

The study identified factors that determine the effectiveness of higher education faculty in their research and educational activities. These factors include, for example, low faculty readiness and ability to perform effectively, the diversification of the university's mission and model, as well as the faculty model and content of their work, dynamic processes in the labor market and educational services, higher education standardization processes, changing requirements for research results, changing approaches to performance evaluation, including financial ones, and others. These factors not only influence the effectiveness of faculty in their research and educational activities but also serve as the basis for developing performance evaluation criteria.

The study identified principles whose adherence determines the level of performance (Deci & Ryan, 2000). These included: the presence of clearly expressed ideals or mission; common sense; Appointment or election of an expert council; compliance with regulations or discipline; honest business conduct; development of simple and clear key performance indicators, maintaining direct, adequate, and ongoing records of achievements; clear time and cost scheduling, or so-called dispatching; introduction of standards and schedules—a predetermined set of rules or regulations generally recognized in the professional activities of university employees; determination of standard conditions and standardization of operations; development of regulatory, methodological, and practical instructions; a system of rewards for effective work.

The obtained understanding of the prerequisites, factors, and principles made it possible to create and substantiate a monitoring mechanism and pedagogical conditions, develop criteria and their indicators for performance assessment, and organize work on training teachers with the aim of increasing the effectiveness of their research and educational activities (Etzkowitz & Leydesdorff, 2000).

During the experimental work, pedagogical conditions for stimulating the scientific and educational activities of higher education teachers were substantiated and proposed. These conditions included organizational, psychological, pedagogical, and technological factors.

Organizational factors are specialized, scientifically based tools for university management that, using algorithms as a step-by-step design language, enable the general conceptual design of incentives to be translated into individualized projects for enhancing teacher effectiveness.

Psychological and pedagogical factors, on the one hand, represented the psychological microclimate created through the introduction and use of incentive procedures. On the other hand, they constitute a set of psychological and pedagogical actions related to the development and implementation of individualized training programs for teachers.

Technological conditions are presented as activities aimed at organizing and modifying other activities. These activities determine the focus, content, and roles of the subjects of incentive and evaluation procedures at the university, leading to significant modernization of the scientific and educational activities of teachers.

Monitoring the effectiveness of the scientific and educational activities of higher education teachers is presented in Table 1.

Table 1: Monitoring the effectiveness of scientific and educational activities of a higher education teacher.

Block	Content
Target block: Purpose and Objectives of Monitoring the Teacher's Professional Activity	Purpose of monitoring: Forming the system "Effective University"
Objectives of monitoring: Improving the quality of scientific and pedagogical staff; Improving the quality of specialist training; Improving the quality of management decisions	
Methodological block: Principles of Monitoring	Openness, Objectivity, Continuity, Cyclicity, Relevance, Scientific validity, Diagnostic and prognostic orientation, Sufficient completeness
Block: monitoring focus and participants	Objects of monitoring: Educational and methodological activity; Scientific activity; Educational activity; Enlightenment activity; Entrepreneurial activity
Subjects of monitoring: Monitoring service specialists; Representatives of employers; Graduates; Students; Teachers	
Diagnostic block: Monitoring Procedures	Methods: Measurement, evaluation, comparison, analysis, rating
Criteria and indicators: Academic-methodological: quantitative, qualitative, relative; Scientific-research: quantitative, qualitative, relative; Educational: quantitative, qualitative, relative; Enlightenment: quantitative, qualitative, relative; Entrepreneurial: quantitative, qualitative, relative	
Result block: Degree of Achievement of Goals and Objectives	Improving the effectiveness of the teacher's scientific and educational activities and the university's performance as a whole

This type of monitoring, as an element of the incentive mechanism, is a scientifically based system for selecting, processing, storing, and disseminating information on the educational, methodological, scientific, educational, and entrepreneurial results of a teacher's activities. It is aimed at providing informational, organizational, and scientific-methodological

support for managing the teacher's professional growth and the quality of the educational process at the university at any given time, as well as forecasting their development and effectiveness over the future (Ferguson, 2025).

Monitoring includes five blocks: a target block; a methodological block; a subject-object block; a diagnostic block; and a performance block, each of which performs a corresponding function.

The implementation of incentive and evaluation procedures was carried out in stages and included the following phases: motivational, conceptual, project, technological, diagnostic, and final (Hedzyk et al., 2023).

The motivational stage has a psychological and pedagogical context and includes organizational measures to motivate organizers, experts, and faculty to achieve the goals and objectives of incentives. These measures include holding staff meetings across the university's structural divisions, which were devoted to reviewing incentive targets and, separately, monitoring, along with its risks and benefits for faculty.

The conceptual stage also has a psychological and pedagogical context and is aimed at developing a monitoring-based incentive concept and its theoretical justification. This was necessary for conceptualizing the meaning and content of incentive and monitoring procedures and determining the effectiveness, role, and status of organizers, experts, and faculty in incentives.

The design stage involved designing algorithms for organizing and implementing incentives and monitoring. As noted above, in accordance with the purpose of incentives and monitoring, its objectives were defined, which formed the basis for developing algorithms for implementing these processes.

The technological stage (the actual technological conditions) consisted of the practical implementation of incentive and monitoring procedures, ongoing diagnostics and self-diagnostics, monitoring and analysis of the incentive and monitoring implementation process, advisory and technological assistance, and training in working within an effective contract.

The diagnostic stage consisted of final diagnostics and self-diagnostics, rating procedures based on expert and student survey results, reflection, analysis, and discussion of the results. This stage and its content also have a psychological and pedagogical context.

The final stage continued the previous one and included the processing and coordination of data on individual (departmental, university-wide) performance indicator values, making proposals to improve the incentive procedure based on monitoring, preparing proposals for moral encouragement and calculating incentive bonuses to teachers' salaries based on the results of performance evaluation.

The groups included faculty members with practical experience at the university. The gender composition and average age of the participants in the experiment were virtually identical.

The participants in the experiment—faculty members included in the control group—were not included in this type of incentive; their professional performance was assessed traditionally, based on data from their individual work plans for the academic year. Faculty members in the experimental group, however, were included in the proposed incentive model.

The average performance criteria for teachers in the experimental group in 2024 and 2025 exceeded those of teachers in the control group by 12.2% and 12.0%, respectively. The largest differences were observed for research (18% in 2024 and 13% in 2025), educational (32% in 2024 and 24% in 2025), and entrepreneurial (24% in 2024 and 18% in 2025). The differences between the teaching and methodological (educational) and educational criteria were insignificant and nonsignificant. Student assessments of teachers, changes in the structure of teachers' professional motivations, changes in teacher agency indicators, and the level of teachers' readiness to work under an effective contract were used as indirect or additional criteria and indicators for determining teacher effectiveness.

At the end of the formative experiment, we conducted follow-up assessments to determine the readiness of teachers in the experimental and control groups for research and educational activities under the incentives underlying an effective contract (Kwiek & Roszka, 2025). Teacher readiness for such working conditions was determined based on changes in motivational, cognitive, and activity-based readiness criteria.

An analysis of the results of determining the readiness of teachers for professional work under incentives and an effective contract at the end of the experiment revealed that the control group of teachers showed no changes in the levels of readiness under study (the dynamics of indicators ranged from 0.8 to 2.2%), while the experimental group of teachers demonstrated significant dynamics – from 13.3 to 32.8%. The values of the experimental group's readiness indicators for work under incentives and an

effective contract, obtained as a result of the experiment, significantly exceed those of the control group.

Key research findings:

1. Stimulating the scientific and educational activities of higher education teachers as a targeted process of enhancing their activities within the framework of educational, methodological, research, educational, outreach, and entrepreneurial work, based on the combined effect of conditions that ensure increased teacher effectiveness.

The purpose of incentives is to, by activating the scientific and educational activities of teachers and influencing their effectiveness, determine the zone of proximal professional development of teachers and ways to improve the effectiveness of the university as a whole.

The prerequisites for the study and substantiation of the relevance of the problem of stimulating the scientific and educational activities of higher education teachers under consideration are factors that have developed in the management of the higher education system, in the regulatory framework for higher education, in the pedagogical and psychological sciences, as well as the insufficient development of the scientific foundations for stimulating and monitoring the activities of university teachers.

2. A mechanism for stimulating the scientific and educational activities of higher education teachers, which is a theoretically substantiated process, developed, and then implemented within the space of a technological university, to activate the work of scientific and pedagogical staff, promoting their professional development (Khimchuk et al., 2023).

The key element of the incentive mechanism is monitoring the effectiveness of the scientific and educational activities of teachers, which includes five structural and functional blocks: a target block, defining the purpose and objectives of monitoring, which are focused on improving the quality of training specialists at the university, the quality of university management, the quality of the faculty, and the formation of the image of an «effective university» (Nebelenchuk et al., 2024); a methodological block, characterizing the psychological and pedagogical principles underlying the monitoring of the effectiveness of the scientific and educational activities of teachers; a subject-object block, containing information on the focus and participants of the monitoring; a diagnostic block, including the actual monitoring procedures used during monitoring, such as measurement, evaluation, comparison, comparison, counting, analysis, rating, and a results block, reflecting the degree of coincidence of the obtained results with target or planned values.

3. Pedagogical conditions for stimulating the scientific and educational activities of higher education teachers are a purposefully created environment within the university in which a combination of organizational, technological, and psychological-pedagogical factors or means that motivate teachers to effectively carry out their activities are presented in close interaction. This is a set of psychological-pedagogical foundations or non-material incentives that determine the effectiveness of the scientific and educational activities of higher education teachers.

The organizational, technological, and psychological-pedagogical incentive conditions that comprise the complex of pedagogical conditions constitute the environment for implementing a regulated and targeted process for activating the scientific and educational activities of teachers by transforming it into a system of consistent, interconnected, and scientifically based procedures that, using algorithms as the language of step-by-step design, enable the general conceptual design of incentives to be translated into the form of an individual teacher's project for increasing the effectiveness of their activities.

4. The evaluation of incentive results used to determine the effectiveness of a higher education teacher's research and educational activities involves two sets of criteria: primary and secondary.

The primary group includes criteria for teaching and methodological, research, educational, outreach, and entrepreneurial activity, along with corresponding indicators, divided into three categories: quantitative, qualitative, and relative.

The methodology for determining the effectiveness and efficiency of a teacher's professional activity includes the following steps: based on the obtained monitoring data, planned and actual indicators are compared, and then the deviations between actual and planned data are calculated for each indicator value. Actual indicator values that are both high and as close as possible to planned values are considered optimal.

Supplementary criteria for the effectiveness of a teacher's research and educational activities include student assessments of the teacher, changes in the structure of the teacher's professional motivations, and data on the dynamics of the teacher's agency indicators and their level of readiness to work under an effective contract.

The scientific novelty of the study lies in the following:

a scientifically based method for improving psychological and pedagogical approaches to planning, organizing, and evaluating the results of higher education teachers' research and educational activities has been proposed,

in which the teacher's activity is presented as an object of incentives;

a mechanism for stimulating the research and educational activities of higher education teachers has been substantiated and developed based on monitoring the effectiveness of their activities, including target, methodological, object-subject, diagnostic, and results-based blocks;

pedagogical conditions for stimulating the research and educational activities of higher education teachers have been defined, substantiated, and tested in the space of a technological university as an organized process aimed at implementing the incentive mechanism and improving the quality and productivity of the professional activities of research and teaching staff;

definitions of the concepts "pedagogical conditions for stimulating scientific and educational activities of a higher education teacher", "monitoring the effectiveness of a teacher's professional activity" have been introduced into the scientific thesaurus as necessary methodological and research elements that develop the terminological apparatus of the pedagogical aspects of the problem of stimulating work in higher education.

CONCLUSIONS

This study has identified and characterized the epistemological reasons for evaluating the outcomes of higher education teachers' scientific and educational activities from the perspective of their effectiveness. Such evaluation is essential for understanding how teaching and research performance contribute to academic quality and student learning, emphasizing the need for systematic assessment of faculty impact.

Furthermore, the study has substantiated the necessity and feasibility of implementing pedagogical conditions to stimulate higher education teachers' scientific and educational activities, with a focus on fostering both professional and personal development. These conditions provide a structured framework to motivate faculty, encourage continuous professional growth, and enhance their effectiveness in research and teaching.

The research also explored the contradictions, prerequisites, and principles required to develop a mechanism for constructing pedagogical conditions that support faculty stimulation. This analysis expands the theoretical understanding of how such conditions can be applied in professional development processes, strengthening the integration of teaching and research responsibilities.

Additionally, the study advances the theoretical comprehension of factors that enable continuous updating of university teachers' professional competencies and promote higher effectiveness. The results contribute to the scientific and methodological foundation for stimulating various components of faculty activity and for designing concrete paths for professional growth. Key criteria were categorized into educational, methodological, research, pedagogical, outreach, and entrepreneurial dimensions, with corresponding quantitative, qualitative, and relative indicators. Indirect measures, such as student evaluations, changes in professional motivation structures, agency indicators, and readiness for effective contractual arrangements, were also considered.

Analysis of the experimental group showed that faculty readiness indicators for work under incentives, performance monitoring, and effective contracts significantly exceeded those of the control group. Overall, the implementation of the proposed model and pedagogical incentive conditions resulted in substantial improvements across motivational, cognitive, and activity-based indicators, enhancing teachers' preparedness for research and educational activities under effective contractual arrangements.

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