



METHODOLOGY FOR ORGANIZING EXPERIMENTAL WORK ON IMPROVING THE MANAGEMENT SYSTEM FOR TRAINING PEDAGOGICAL PERSONNEL FOR INNOVATIVE ACTIVITIES

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ABSTRACT

This article examines the methodological framework for conducting experimental research aimed at enhancing the management system for training pedagogical personnel in innovative activities. The study addresses the growing need for educators who can effectively implement innovative teaching methods, integrate technology, and adapt to rapidly changing educational environments. The proposed methodology encompasses the theoretical foundations, structural components, and practical implementation stages of experimental work designed to improve teacher training management systems. Key elements include diagnostic procedures, intervention design, implementation strategies, and evaluation mechanisms. The research framework integrates contemporary management theories with pedagogical innovation principles, establishing a systematic approach to developing educators' competencies in innovation.

KEYWORDS: Experimental methodology, pedagogical personnel training, innovation management, teacher professional development, educational management system, innovative activities, experimental work organization.

INTRODUCTION

The contemporary educational landscape demands continuous transformation of pedagogical practices to meet evolving societal needs and technological advancements. Central to this transformation is the preparation of pedagogical personnel capable of engaging in innovative activities that enhance learning outcomes and institutional effectiveness. However, traditional approaches to teacher training often fail to adequately prepare educators for the complexities of innovation implementation and management. The management system for training pedagogical personnel represents a critical infrastructure that shapes educators' professional competencies, attitudes toward innovation, and capacity for transformative practice. Improving this system requires rigorous experimental work that systematically examines existing practices, tests new approaches, and validates effective interventions. This article presents a comprehensive methodology for organizing such experimental work, providing researchers and educational administrators with a structured framework for enhancing teacher training management systems.

The methodology for organizing experimental work in teacher training management draws upon several theoretical domains. Systems theory provides a holistic perspective on teacher training as an interconnected set of components including curriculum design, instructional delivery, assessment mechanisms, and organizational structures. Innovation diffusion theory illuminates how innovative practices are adopted and implemented within educational institutions. Competency-based education frameworks guide the identification of specific skills



and knowledge required for innovative pedagogical activities. The integration of these theoretical perspectives creates a comprehensive foundation for understanding how management systems influence the development of innovative capacities among pedagogical personnel. This multidisciplinary approach recognizes that effective teacher training for innovation requires coordination across multiple organizational levels and consideration of both individual and institutional factors.

Innovative activities in education encompass the development and implementation of new teaching methods, integration of emerging technologies, creation of novel curricula, and transformation of learning environments. For pedagogical personnel, engagement in innovative activities requires specific competencies including creative problem-solving, technological literacy, collaborative skills, reflective practice, and change management capabilities.

The management system for training pedagogical personnel comprises several interconnected elements: strategic planning mechanisms that align training with institutional goals and societal needs; organizational structures that facilitate communication, collaboration, and resource sharing; resource allocation processes that ensure adequate support for training activities; quality assurance systems that monitor and enhance training effectiveness; professional development programs that build specific competencies; and performance evaluation frameworks that assess outcomes and guide continuous improvement.

The experimental work begins with comprehensive analysis of the existing management system to identify deficiencies, gaps, and areas requiring improvement. This foundational stage establishes the rationale and direction for subsequent experimental activities.

Diagnostic assessment involves systematic evaluation of current teacher training practices, management structures, and outcomes related to innovative activities. This assessment employs multiple methods to gather diverse perspectives and comprehensive data. Surveys capture broad patterns across large groups of participants, revealing common challenges and areas of concern. Interviews with stakeholders including educators, trainers, administrators, and students provide in-depth understanding of experiences, perceptions, and contextual factors. Document analysis examines policies, curricula, strategic plans, and performance reports to understand formal structures and stated objectives. Observational studies offer direct insight into actual practices, interactions, and organizational dynamics.

Problem definition requires clear articulation of specific management deficiencies that hinder effective preparation of pedagogical personnel for innovative activities. Problems may relate to curriculum gaps where training content fails to address emerging pedagogical approaches or technological developments. Inadequate resources including insufficient funding, limited access to technology, or lack of appropriate facilities may constrain training quality. Ineffective organizational structures characterized by rigid hierarchies, poor communication channels, or fragmented responsibilities can impede coordination and innovation. Insufficient support mechanisms such as absent mentoring programs, inadequate feedback systems, or limited opportunities for professional collaboration may leave educators unprepared for innovative practices.

Literature review examines existing research on teacher training management, innovative pedagogy, and educational leadership to establish theoretical grounding and identify best practices. This review synthesizes findings from empirical studies, theoretical articles, and

practical reports to understand what works in similar contexts. The literature review identifies knowledge gaps that the experimental work can address and ensures that proposed interventions build upon established evidence rather than repeating past mistakes or reinventing solutions.

Hypothesis formulation develops testable propositions about how specific improvements to the management system will enhance pedagogical personnel's capacity for innovative activities. Hypotheses should specify expected relationships between management interventions and training outcomes, articulating causal mechanisms through which changes in management practices lead to improvements in educator competencies. Well-formed hypotheses are specific enough to guide empirical testing yet flexible enough to accommodate contextual variations.

Research design selection determines appropriate experimental or quasi-experimental approaches based on research questions, available resources, and institutional context. Randomized controlled trials offer the strongest evidence of causal effects but may be impractical or unethical in educational settings. Pre-post designs compare outcomes before and after interventions within the same group, though they cannot rule out alternative explanations for observed changes. Comparison group studies contrast outcomes between groups receiving different interventions or between experimental and control conditions. Action research approaches involve cyclical processes of planning, acting, observing, and reflecting, emphasizing collaborative inquiry and practical problem-solving.

Conclusion

The methodology presented in this article offers a systematic framework for organizing experimental work aimed at improving management systems for training pedagogical personnel in innovative activities. By integrating theoretical foundations with practical implementation guidance, this methodology supports rigorous yet feasible research that generates actionable knowledge for educational improvement. Successful experimental work requires careful attention to multiple dimensions including thorough problem diagnosis, theoretically-grounded intervention design, faithful implementation with adaptive flexibility, comprehensive evaluation employing diverse methods and perspectives, and thoughtful reflection translating findings into practical wisdom. The staged approach facilitates systematic progress while maintaining coherence across activities and allowing responsive adjustment as learning accumulates.

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