

MODERNIZATION OF HIGHER EDUCATION TEACHERS' PROFESSIONAL FORMATION AS A STRATEGY OF FORMING THEIR PROFESSIONALISM

MODERNIZAÇÃO DA FORMAÇÃO PROFISSIONAL DE PROFESSORES DE ENSINO SUPERIOR COMO ESTRATÉGIA PARA FORMAR SEU PROFISSIONALISMO

MODERNIZACIÓN DE PROFESORES DE ESCUELA SUPERIOR LA FORMACIÓN PROFESIONAL COMO ESTRATEGIA DE FORMAR SU PROFESIONALISMO

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ABSTRACT: The relevance of the modernization process of professional formation of future academic staff of higher educational institutions consists of a comprehensive update of the system of professional formation of teachers and academic staff. These processes are focused on a scientifically and practically oriented improvement of the educational process. As well as professional and pedagogical interaction of its participants in the educational and professional environment. Theoretical and methodological foundations of increasing the professional formation of teachers of higher schools in the conditions of master's programs are grounded; the author's concept of improving the professional formation of teachers of higher education, in the conditions of these programmes, is formulated and tested; substantiated the content of the modernization of professional formation of teachers of higher education; affordable author's model of modernized professional formation of higher education teaching staff in the conditions of a master's programs. Experimentally verified effectiveness of the proposed scientific and methodological support for the professional formation of teachers of higher educational institutions.

KEYWORDS: Higher education teacher. Master's program. Modernization. Pedagogical innovations. Professional formation. Professionalism.

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RESUMO: *A relevância do processo de modernização da formação profissional do futuro pessoal acadêmico, das instituições de ensino superior, consiste em uma atualização abrangente do sistema de formação profissional de professores e pessoal acadêmico. Estes processos estão focalizados em uma melhoria científica, orientada para a prática do processo educacional. Assim como a interação profissional e pedagógica de seus participantes no ambiente educacional e profissional. Os fundamentos teóricos e metodológicos do aumento da formação profissional de professores de ensino superior nas condições dos programas de mestrado são fundamentados; o conceito do autor de melhorar a formação profissional de professores de ensino superior nas condições destes programas é formulado e testado; fundamentado o conteúdo da modernização da formação profissional de professores de ensino superior; modelo de autor acessível de modernização da formação profissional de professores de ensino superior nas condições de um programa de mestrado. Eficácia, comprovada experimentalmente, do apoio científico e metodológico proposto para a formação profissional de professores de instituições de ensino superior.*

PALAVRAS-CHAVE: *Professor de Educação Superior. Programa de mestrado. Modernização. Inovações pedagógicas. Formação profissional. Profissionalismo.*

RESUMEN: *La relevancia del proceso de modernización de la formación profesional del futuro personal académico de las instituciones de educación superior consiste en una actualización integral del sistema de formación profesional del profesorado y del personal académico. Estos procesos están enfocados a una mejora del proceso educativo con orientación científica y práctica. Así como la interacción profesional y pedagógica de sus participantes en el ámbito educativo y profesional. Se fundamentan los fundamentos teóricos y metodológicos para incrementar la formación profesional de los docentes de las escuelas superiores en las condiciones de los programas de maestría; se formula y prueba el concepto del autor de mejorar la formación profesional de los profesores de las escuelas superiores en las condiciones de estos programas; fundamentó el contenido de la modernización de la formación profesional de los profesores de educación superior; modelo de autor asequible de formación profesional modernizada del personal docente de educación superior en las condiciones de un programa de maestría. Efectividad comprobada experimentalmente de la propuesta de apoyo científico y metodológico para la formación profesional de docentes de instituciones de educación superior.*

PALABRAS CLAVE: *Profesor de Educación Superior. Programa de maestría. Modernización. Innovaciones pedagógicas. Formación profesional. Profesionalidad.*

Introduction

In the late 20th – the early 21st centuries rapid globalization processes have become a kind of catalyst for the transition to innovative scientific-informational technologies and have actualized the intensification of the development of the professional potential of future high school teachers in the conditions of master's program studies. They have exacerbated the need for substantial and structural renewal of the higher education system in accordance with new trends in the development of society and changes in the requirements for teachers from

stakeholders (state, society, employers, students) with due account of national traditions and foreign experience. The introduction of new information technologies (NIT) in the learning process is an integral part of the informatization project (HARKOVA; BASHKIROVA, 2019).

In the modern period of dynamic implementation of the updated regulatory legal framework of the education system of the Russian Federation, there is an imbalance between the need to improve the methodology of forming future higher school teachers' professionalism and readiness to introduce pedagogical innovations in their professional activities. However, there is a lack of clear guidelines for updating the pedagogical tools of this process. There exists certain discrepancy between the federal state educational standards of secondary (complete) general education and the new standards of higher education. There have not been created conditions for implementing modernization of the professional training of teachers of higher education, since the pedagogical consciousness of society is not prepared for its implementation.

In the presence of such problems, one can observe trends of searching for effective ways to modernize the professional training of high school teachers in order to ensure their high level of professionalism during a short period of study for a master's degree.

Methods

The following methods were used in the course of research:

– theoretical ones: the systemic-analytical method of studying philosophical, psychological and pedagogical theories – for revealing the state of elaboration of the problem and defining theoretical and methodological foundations of research, systematization and generalization of scientists' views on various aspects of the designated problem and the formulation of a hypothesis; the method of scientific modeling – for creating a model of a modernized professional training of high school teachers in the conditions of master's program studies;

– empirical ones: the diagnostic methods (questioning, testing, interviews, conversations), the observational methods (observation, self-observation); the prognostic methods (ranking, scaling, research work); the method of pedagogical experiment – for detecting the effectiveness of the proposed model of modernized training of teachers of higher education in the conditions of master's program studies; the methods of mathematical

statistics: Pearson's criterion and Kolmogorov's-Smirnov's criterion – for testing statistical hypotheses and detecting statistically significant differences in the levels of professionalism of master students of experimental and control groups during the ascertaining and formative stages of the pedagogical experiment.

Experimental groups were formed from master students studying in educational master programs “Higher Education”, “Management in Education” at the Humanitarian Pedagogical Academy (branch) of V. I. Vernadsky Crimean Federal University (Yalta). Separate elements of the research were introduced into the educational process of the Evpatoria Institute of Social Sciences (branch) of V. I. Vernadsky Crimean Federal University. In total, 60 master students and 120 university professors took part in the experiment at its different stages.

Results and Discussion

The analysis of the psychological-pedagogical literature of both domestic and foreign higher education gives grounds to state certain shifts in determining the basic guidelines and ways of the development of the education system. The following publications are meant: N. Rönström's one with the rationale for the reform of pedagogical education in the light of globalization and reflexive modernization of the world economy and the author's opinion on the importance of the transition from an economically oriented globalist approach to a multidimensional cosmopolitan approach in pedagogical education and education in general (RÖNNSTRÖM 2013) the work by Pegalajar Palomino, María del Carmen & Paul Drijvers presenting the analysis of the future teachers' ideas on innovative methodology focused on the teaching activity of university professors employed in the master's program for teacher training (PALOMINO, 2015). The scientists Burkhanova *et al.* (2017), argue that, choosing between electronic educational resources and teaching practice, a professional teacher will always look for more rational technological and didactic learning opportunities.

Considering the professionalism of high school teachers as a complex personality-activity formation, in our study we have determined the structural components of this phenomenon: motivational-axiological component (the formation of internal motives for achieving success in future professional activity; the formed system of pedagogical values, the pursuit of scientific and educational activities); innovation-cognitive component (the formed system of psychological, pedagogical, methodical and technological knowledge); professional activity-based component (readiness for scientific-pedagogical activity, presence of

professionally important qualities, practical habits and methodological skills of professional activity, ability to model the educational process and generate new ideas, informational-technological competence, ability to realize the educational process based on the latest technologies); effective-reflexive component (the need in self-development and self-actualization, the ability to self-analysis, the prediction of the results of one's activities, the readiness for professional self-improvement) (VAGANOVA *et al.*, 2020; ZAMALETDINOVA *et al.*, 2018; KONOPLEVA; GLUZMAN; GORBUNOVA, 2018).

At the ascertaining stage the state of formation of the structural components of the professionalism of high school teachers in the conditions of master's program studies was revealed using diagnostic measurements that involve a set of diagnostic methods: motivation of professional activity (GLUZMAN; GORBUNOVA, 2019) motivation of success and avoiding failure; definition of types of thinking and level of creativity; realizing the needs for self-development (REAN, 1999) reflexivity (ROGOV, 2001) self-actualization of personality (KARPOV, 2003). implementation of flexible integrated pedagogical technologies capable adapt to different levels of complexity of pedagogical conditions and effectively solve modern problems of education (GAFIYATOVA ELZARA *et al.*, 2019).“ finding an efficient solution to the existing problem of the professional teaching of a language (ZABUGA ANTONINA *et al.*, 2018). the author's tests: on the basics of pedagogy and didactics of higher school with pedagogical innovation; on the basics of scientific-pedagogical research; on the basics of pedagogical skills; on diagnosing the development of information competency of master students (Table 1).

Table 1 – General characteristics of the levels of professional development of master students at the ascertaining stage of the experiment, %

| Criteria | Motivational-axiological | | Innovational-cognitive | | Professional activity-based | | Effective-reflexive | | Integrative indicator | |
|-----------------|--------------------------|------|------------------------|------|-----------------------------|------|---------------------|------|-----------------------|------|
| | EG | CG | EG | CG | EG | CG | EG | CG | EG | CG |
| Initial | 15.9 | 17.7 | 28.6 | 30.6 | 31.7 | 30.6 | 27.0 | 29.0 | 25.8 | 26.9 |
| Basic | 38.1 | 37.1 | 38.1 | 38.7 | 39.7 | 40.3 | 38.1 | 32.3 | 38.5 | 37.1 |
| Sufficient | 34.9 | 32.3 | 25.4 | 24.2 | 19.0 | 17.7 | 22.2 | 24.2 | 25.4 | 24.7 |
| High | 11.1 | 12.9 | 7.9 | 6.5 | 9.5 | 11.3 | 12.7 | 14.5 | 10.3 | 11.3 |
| Total: | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| χ^2_{emp} | 0.22 | | 0.16 | | 0.14 | | 0.48 | | 0.28 | |
| λ_{emp} | 0.11 | | 0.11 | | 0.06 | | 0.22 | | 0.11 | |

Source: Prepared by the authors

In particular, the high level was diagnosed in 10.3% of the students in the experimental group and 11.3% in those of the control group. 25.4% of the future teachers of the university experimental and 24.7% of the control groups manifested the sufficient level. The basic level of professionalism was formed in 38.5% of the master students of the experimental group and in 37.1% of those of the control group. The initial level was recorded in 25.8% of the master students of the experimental group and 26.9% in those of the control groups.

In the process of the ascertaining stage of the pedagogical experiment it was revealed that the majority of master students do not clearly understand the specifics of the professional activity of a teacher of a higher educational institution, do not focus on the implementation of innovative and multimedia technologies in future pedagogical activity; students are not aware of the content and structure of the professionalism of a university teacher and, accordingly, do not emphasize it in the process of master's training; the level of professionalism of master students is insufficient; the attention of teachers in practical and seminar classes concentrates mainly on testing the skills of future teachers to reproduce learned theoretical content; almost no purposeful and systematic work is carried out to develop the skills of master students to use innovative and multimedia technologies.

The program of the formative stage of the experiment involved the phased implementation of the model of modernized professional training of teachers of higher education in the conditions of master's program studies.

The model consists of the target, methodological, content-activity-based and effective modules and includes: the goal (formation of professionalism of future teachers); directions of intensification of the process of formation of professionalism of teachers of higher education in the conditions of master's program studies: extrapolation of scientific postulates of the modernization of the system of professional training of teachers in the conditions of master's program studies; intensification of the development of the professional potential of future teachers based on the pedagogical co-creation of undergraduates with the academic staff of the university; actualization of personal qualities of the future teacher and his motivational-axiological orientations as a teacher and researcher; providing conditions for introducing innovative educational technologies into the educational process.

The dynamics of the results of assessing the formation of future higher school teachers' professionalism due to the modernization of their training is reflected in Table 2 (the experimental data was processed using the indicator that integrates data on all the four components of the professionalism of future high school teachers).

Table 2 – Dynamics of the levels of master students' professionalism in the experimental and control groups (EG, KG) according to the integral indicator, %

| Levels of formation | Stages of the pedagogical experiment | | | |
|---------------------|--------------------------------------|------|-----------|------|
| | Ascertaining | | Formative | |
| | EG | CG | EG | CG |
| Initial | 25.8 | 27.0 | 3.2 | 8.1 |
| Basic | 38.5 | 37.1 | 17.1 | 33.5 |
| Sufficient | 25.4 | 24.6 | 46.0 | 41.5 |
| High | 10.3 | 11.3 | 33.7 | 16.9 |

Source: Prepared by the authors

The indicators of table 2 indicate that at the first stage of the experiment the degree of formation of professionalism in the EG and the CG is almost the same at all levels. However, after the formative stage of the research, in the experimental groups there were significant positive changes in the levels of professionalism of future teachers of higher education, in the control groups the dynamics developed at a much slower rate.

Summary

The essence of the process of modernization of professional education of future teachers of higher school consists in comprehensive update of the system of professional training of higher school teachers in accordance with the trends of the society development, new requirements for the modern higher school teacher, which presupposes scientific-oriented and practically directed improvement of the educational process, professional-pedagogical interaction of its participants in the informational educational environment, employing innovative teaching technologies, providing conditions for professional self-development of master students.

The theoretical-methodological principles of the modernization of the professional training of higher schools teachers in the conditions of master's program studies are substantiated; there has been grounded the author's conception of modernizing the professional training of higher schools teachers in the conditions of master's program studies on the basis of the systemic, competence-based, synergistic, axiological, activity-based, personality-oriented, culturological, and acmeological approaches.

There have been defined the components of the professionalism of higher school teachers (motivational-axiological, innovational-cognitive, professional activity-based,

effective-reflexive ones), as well as the factors affecting the modernization of professional training of higher school teachers in the conditions of master's program studies.

The author's model of the modernized professional training of higher school teachers in the conditions of master's program studies has been presented. There have been scientifically grounded and experimentally verified the organizational-pedagogical conditions of the modernization of the professional training of higher school teachers in the conditions of master's program studies: the purposeful preparation of the organizers of master students' educational process to the modernization of the professional training of higher school teachers; the optimal combination of innovative teaching methods and scientific research work of master students in the process of professional training; creating an informational educational-professional environment in order to model master students' individual educational trajectory; organization of an extensive system of extracurricular work on the professional-reative self-identification of master students.

Conclusions

There have been scientifically grounded priority directions of the process of formation of future higher school teachers' professionalism in the conditions of master's program studies: 1) extrapolation of scientific provisions of the modernization of the system of professional training of higher school teachers in the conditions of the master's program studies; 2) intensification of the development of professional potential of future higher school teachers on the basis of professional co-creation of master students with the faculty members of universities; 3) actualization of the personal qualities of the future higher school teacher and his motivational-axiological orientations as a higher school teacher and researcher; 4) providing conditions for the implementation of innovative educational technologies in the educational process.

The development of the professional potential, the formation of pedagogical skills is considered as a continuous process that provides an adequate response to the changing requirements of the society, the educational system, and the unrealized level of readiness for professional activity that has been revealed.

Based on the selected approaches and pedagogical principles, there have been identified the main advantages of using the electronic support system for the master students' educational process, and professional creative expression of future teachers of higher education: providing master students with maximum information, eliminating duplication of

the content of educational material from different courses, controlling the quality of developing electronic educational-methodological complexes of disciplines, timely correction of the education program, selection of individual training schedules and scientific research work.

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