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METHODOLOGICAL PRINCIPLES OF RESEARCH OF PROFESSIONAL TRAINING OF ADMINISTRATORS AND MANAGERS IN HIGHER EDUCATION INSTITUTIONS

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Scientific research problems of results of professional training of administrators and managers by the integrated thematic direction “Theory and methodology of organizational-communicational support of professional training of future specialists in public administration and managers at higher educational institutions” in the National pedagogical university, named after M.P. Dragomanov within state budgetary scientific works “Theory and technology of studying in the system of professional education” and “Theoretical and methodological bases of forming the system of postgraduate education, based on sustainable development” has been realized. The theoretical analysis of scientific literature has been conducted for determining the potential of methodological support, most reasonable methods of its realization (theoretical, general scientific and concrete scientific, empirical and statistical) have been established. Methodological possibilities of using means of information-analytical, technical and scientific-metrical support, graphic-demonstration ones on different information carriers, video-visual, multimedia, distant, instrumental-laboratory, scientific-methodical and technical-regulative, scientific-worldview, concrete scientific, disciplinary and interdisciplinary, scientific cognition in the sphere of state management and public administration, pedagogical, natural sciences, empirical and statistical ones and humanities have been analyzed. Methodical recommendations have been offered and a plan for studying professional training of future specialists in public administration and managers at higher educational institutions has been formed as following: methodological substantiation of the competence approach under conditions of information society of advanced knowledge; information-methodological support of organization of the educational-scientific process of professional training of future specialists in public administration and managers; elaboration and verification of a projected organization model of socio-cultural forms of professional training of future specialists in public administration and managers by pedagogical research stages: cameral, diagnostic-screening, ascertaining, forming and expert

Keywords: professional training, educational process efficiency, scientific cognition methodology, research plan

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1. Introduction

The scientific problem of modernization of professional training of managers at higher educational institutions (then – HEI) is actualized by the necessity for organizing new educational process forms under conditions of spatial-temporal intensity of transmission, systematization and synthesis of modern scientific knowledge, interpersonal space of communicative interaction of educational-scientific systems, psychological-pedagogical imbalance of the academic potential of scientific schools for developing portable learning and research programs, prognostication and modeling of process interaction between participants in the system of managing the relevance quality in the sphere of education, science and innovations.

Organization of new forms of professional training needs today satisfying the socio-economic and socio-ecological demand for safety of all participants of the ecological process and interested parties as to guarantees for health protection, legal and information defense of the personal space and corporative student-centered learning environment (for different categories of applicants of continuous education throughout life without exclusion and limitations, for all, who wants), access and equality (without political, confession, age, race, gender, inclusive, con-

victional, material exclusion for a person), involvement of the most number of consumers, stakeholders, public representatives and authorities, politicians, patrons for realizing institutional (in-class (day, evening), out-class, distant, network); individual (external, family (home), pedagogical patronage, at the working place (at production)); dual form of training with the formed setting of technical-technological and information-telecommunication services (scientific-metrical bases, platforms, banks of statistical and modern scientific information data) for guaranteeing information transparency as to the environment condition, global civilization problems, risks and threats for developing a methodology of system management on principles of the Conception of education for sustainable development, Strategy of sustainable development of Ukraine «Ukraine – 2020», National strategy of education development in Ukraine up to 2021, realization of aims of the UNO Summit on sustainable development.

This question is actualized for improving the methodology of system management of professional training of specialists at HEI under conditions of global challenges by separated priority methodological directions of formation of information-methodological support (theoretical-methodological principles) of scientific cognition in spheres of science and knowledge – natural

(fundamental), humanitarian (socio-economic, socio-political), informative (management of informatization and digitalization of the space of education, science and innovation, system analysis of the quality of geoinformation, biosocial, socio-cultural forms of organization of system interaction with the environment); managerial methodologies of scientific studies – pedagogical (influence of global challenges on transformation of educational-scientific systems of HEI under conditions of international implementation of the social dimension, legal protection of life quality and safety by principles of stability and prolonged employment and professional mobility of all participants of the educational process); evaluation methodology – geosphere influence of relevance of sociocultural forms (systems of professional training, retraining and qualification improvement with course resources for realization of the academic potential of HEI management) on transformation of the socio-economic, ecological development of society and nature (improvement of procedures of individual and collective algorithms of expert evaluation using methods of expert examinations – socioeconomic, ecological, political and strategic plans of development of collective and individual forms of management organization); fundamental-philosophical methodology (production of innovative paradigms of professional training at the fundamental basis of the noosphere world position of a manager-professional of the new formation in the futuristic projection of noospheric worldview); research methodologies for management of virtual modification of subject-subject interaction of HEI educational-scientific systems, their inter-institutional connections and influence on the external environment (society, Nature) for elaborating and managing stable stratagems and modifications; methodologies for producing and realizing a synergetic paradigm for managing balance of interaction between education, science and innovations and external environment (natural – geospheric (bio-, hydro-, litho-, atmospheric); socio-economic, socio-politic environments (bio-, geo, chemical influence on society and formation of the policy of life quality and safety under conditions of globalization)); methodology of system management of life quality and safety as an information-digital expression of system interaction between educational institutions, their graduates as managers-professionals, able to transform social processes of management (for forming a social paradigm of information safety of the globalization influence, prognostication and modeling of social development, support of the optimal stability dynamics of global ecological processes).

For making information technologies of circulation of information-educational data (fields of sciences and knowledge, knowledge of technologies) in advance safe for socio-natural systems, society and also the system of postgraduate pedagogical education, it is urgent to substantiate architecture of information systems, to provide educational policy of higher educational institutions on the base of information-methodical and searching volumes, guaranteeing e-technological management of available information portals, program analysis and assessment for elaborating the information-technological system of making managerial decisions, providing strategic development of institutions of modernized socio-

cultural forms of organization of continuous professional education of teachers, regulation of asymmetric information and uncontrolled symmetry of web-technologies introduction in the educational process.

2. Literary review

The methodology of system management of professional training is based on fundamental, applied special and interdisciplinary methodological strategies, namely fundamental-philosophical, general and concrete scientific, expert examination, practice, prognostication and modeling of prospective development under transformation conditions of global challenges without losing effectiveness of the educational process relevance.

The theory of system was studied and substantiated from different points of view: essence and development of the system approach were elaborated by I. Blauberg and E. Yudin [1]; system analysis – by Y. Surmin [2], who separated the complex of approaches, principles, methods, means and ways of system activity in scientific-research work. The theory of system management, principles and peculiarities of managerial processes were studied by the scientists – A. Fayol [3], founder of the conception of administrative (or classic) management; P. Druker [4], who substantiated the conception of purpose management, elucidating the effectiveness of system analysis of economic management. The system methodology is considered by scientists as a complex of architectonics of methodology components that may transform both separately and in the totality according to the system; integrity of principles, approaches and methods, types and means of system activity. Among modern scientific researches in the sphere of professional training of managers, special attention must be paid to ones by N. Winter [5], who presents the discourse as to academic identity in higher education; S. Hardy [6] – analysis of methodological diversification that favors the search for effective methods and means of scientific cognition. Modern scientific searches of native scientists are presented in works [7–10], elucidating theoretical and methodological aspects of formation of the postgraduate education and research system on principles of stability, actualizing the research problem.

3. Research aim and tasks

The research aim is to study the research problem using methods and means of scientific cognition and to prove relevant reliability (including expert examination and verification) for developing a plan of the pedagogical study of the effectiveness of professional training of managers at higher educational institutions.

The following tasks were set for attaining this aim:

1) Theoretical analysis of the potential of research methodical instruments (use and modernization of the complex of methods for realizing the scientific research program, where methods are a part of scientific cognition methodologies and technical regulation means – instruments for providing scientific-methodical substantiation of the effectiveness of methodical principles for studying professional training of administrators and managers at HEIs);

2) Prognostic analysis of methodical possibilities (methodical abilities of realization of strategic planning

directions for pedagogical work – their content, program and synergetic identification) of using means for identifying strategic planning directions for pedagogical work;

3) Elaboration of suggestions for forming a plan for studying the effectiveness of professional training of managers at HEIs.

4. Materials and methods

Materials of the scientific research of the problem of the effectiveness of professional training of managers were scientific cognition methods (theoretical, general scientific, concrete scientific, expert evaluation of strategic plans and programs), methods for monitoring of management and planning quality under conditions of using means of diagnostics and organization of the educational process at HEI (Quality management ISO 9001, Ecological management ISO 14001, Labor protection management OHSAS 18001, Requirements to experimental laboratories ISO 17025, Social responsibility ISO 26000, SA 8000, Information safety management ISO 27000, Food products safety management ISO 22000, HACCP, FSSC, Energy efficiency management ISO 50001 and others).

5. Research results and their discussion

The theoretical analysis of the potential of methodical instruments of the planned pedagogical study by the integrated thematic direction “Theory and methodology of organizational-communicational support of professional training of future specialists in public administration and managers at higher educational institutions” in the National Pedagogical Dragomanov University within state budgetary scientific works “Theory and technology of studying in the system of professional education” (state registration number 0115U000552, 2015–2017) and “Theoretical and methodological bases of forming the system of postgraduate education, based on sustainable development” (state registration number 0117U004914, 2016–2019) has been realized. The purpose destination of systematized groups of pedagogical research methods has been separated and substantiated, namely:

– *theoretical* – theoretical-axiological as to coordination of prevailing values of interpretation of the scientific cognition thesaurus; structural-logic for methodical substantiation of methodical means of quantity diagnostics of parameters, quality metrics of monitoring and parametric identification of educational process organization; comparative analysis of modern methodological research algorithms in philosophical, psychological-pedagogical, natural-scientific, managerial scientific and reference-encyclopedic literature and normative-legal documents of public administration and state regulation of modernization of HEI educational-scientific systems, normative-technical regulation, methodical documents for establishing institutional effectiveness of organization of professional training of future specialists in public administration and managers; system-functional analysis for establishing semantics of professional training by the purpose, field, regional destination, by nature management types and level of educational process organization at HEI, and also in networks of consortium interaction between partners (educational, scientific institutions,

stakeholders, publicity, self-government, information-telecommunication organizations), characteristics of organizational-managerial procedures of documents circulation regulation rules and its e-administration for providing public access to information; culturological analysis – revelation of the potential of HEI academic culture, taking into account principles of virtue, preservation and inheritance of results of scientific schools, including determination of functional peculiarities of management culture, HEI corporative and organizational culture.

– *General scientific methods* – generalization and systematization of knowledge fields for forming the methodological content of fundamental and natural components of professional training of specialists and professionals, formal-logic method of analysis of normative-legal documents, characteristic of the condition and prognostication of tendencies of social development and determination of the effectiveness level of the system of professional training of future teachers and educators by learning and evaluation data of stakeholders and interested parties by safety and stability indicators;

– *Concrete-scientific methods* of psychological and pedagogical studies – formalization by axiomatization of research hypotheses; geographic method for determining professional crosses by the administrative-territorial division of the country that gives a possibility to establish needs of higher educational institutions and employment subjects; disciplinary, interdisciplinary ways of combination of different types of modeling of subsystem components, directed on the adjacent and complete character of professional training system synergetics for forming life quality and safety;

– *empirical* – testing, questionnaire and interrogation of educational process participants; observation over the management organization process of professional training of future specialists; methods of expert evaluations; pedagogical experiment for checking the effectiveness of the organization method and system model of professional training of future specialists at higher educational institutions;

– *statistical* – processing of results of the pedagogical experiment, quality and quantity analysis of the obtained experimental data.

For solving tasks of the research, there was offered the complex of administrative-managerial, scientific-methodical, psychological-pedagogical influences on formation of the methodological content of education, scientific-methodical support of quality management in the system of professional training of future specialists of public administration and managers at HEIs; organization of projective-construction activity and modeling, development of innovation projects of learning proposals and scientific services in the social dimension and improvement of the system model of professional training of future specialists with synchronization of methods, forms, techniques of learning and scientific researches in student-centered interaction between subjects of the educational process in the favorable environment of realization of the HEI academic potential (student-centered learning as a priority of the European educational space and science is guaranteed in modernization stages of educational-scientific systems of HEIs of the Bolognese process in the global dimension of realization of their

academic potential (scientific heritage, academic traditions, virtue) within mobility of participants of the educational process, support of social guarantees and legal protection) [11].

The prognostic analysis of methodical possibilities of using means for identifying directions of strategic planning of the pedagogical research has been conducted. Practical recommendations for forming the methodical-organizational subsystem for providing professional training that synergetically combines methods, means and forms of education, research, evaluation of learning and science-intensive programs, products, services; grounded on scientific-methodological principles of the educational process and development of continuous training using forms of learning, scientific, practice-probation activity, integration of applicants of education by administrative-territorial location, didactic purposes, dual methods of learning and scientific activity, motivation-stimulation, analytic-searching, interactive, situational, identifying-fixing ones of control and self-estimation, diagnostic-correcting, binary by means of information-analytic, technical and scientific-metric support, graphic-demonstrative on different information carriers, video-visual, multimedia, distant, instrumental-laboratory, scientific-methodical and technical-regulative research means, planned to activate by classification signs – methodical cognition in fundamental-philosophical means (phenomenological by educational process stages, hermeneutic for interpretation of the content and analysis of scientific-methodical support of socio-humanitarian, socio-political modules in professional training cycles), scientific-worldview (fundamental theories of systems and system quality analysis of components, condition and their transformations), concrete scientific (natural and socio-humanitarian components of the educational process), disciplinary and interdisciplinary research methods; ones of scientific cognition in the sphere of pedagogical studies and humanities: empirical (traditional, taxonomic, lexical-semantic, grading), cognition methodology (proof, analysis and synthesis, pedagogical audit, monitoring, modeling and prognostication of the competence formation condition, professional development, planning, formation of pedagogical hypotheses, theories, ruling paradigms); statistical (generalization, systematization, specification, analysis of the totality of factors in chains of stable contingency and probability) have been offered.

The plan of studying the effectiveness of managers' professional training in HEIs is offered in stages:

1) methodological substantiation of the competence approach under conditions of information society of advanced knowledge (normative-legal and technical regulation of bio-social and information safety and guarantee of access to information data; notion-categorical thesaurus of research of professional competences under conditions of the Bolognese process; analysis of the practical-useful experience of managerial-communicative interaction under condition of transboundary modernization and global risks of transformation of educational-scientific systems of specialists' professional training);

2) information-methodological support of organization of the educational-scientific process of profession-

al training of future specialists in public administration and managers (scientific-methodical support and information-analytic basic of organization of socio-cultural forms of future specialists' professional training; administrative-communication regulation of the HEI academic potential);

3) elaboration and verification of the projected model of organization of socio-cultural forms of professional training of future specialists in public administration and managers (projection of the organization model and revelation of the effectiveness of the method of socio-cultural forms of future specialists' professional training; information-analytical planning of the pedagogical research of socio-cultural forms of future specialists' professional training; expert evaluation of the model).

Pedagogical research stages:

1) cameral (study of the functioning efficiency experience of traditional professional training systems);

2) diagnostic-screening (inventorying of parameters of parametric evaluation of professional competence formation in future specialists for the ascertaining stage by success indices);

3) ascertaining (evaluation of determined formation levels by elaborated criteria);

4) forming (evaluation of the effectiveness of introduction of the scientific-methodical complex for organization-managerial and information-analytic support using the author methods of educational process organization for the projected professional training model);

5) expert (expert evaluation of the effectiveness of the elaborated model and author methods).

6. Conclusions

The theoretical analysis of scientific-methodical and encyclopedic-reference literature for establishing the potential of methodical instruments of the research has been conducted. Most reasonable method of pedagogical research have been established: theoretical – theoretical-axiological, comparative, system-functional, culturological analysis; general scientific – generalization and systematization, formal-logic; concrete scientific methods of psychological and pedagogical studies – formalization, geographic method, disciplinary, interdisciplinary; empirical – testing, questionnaire and interrogation, observations, method of expert evaluation, pedagogical experiment; statistical – processing of pedagogical experiment data, quality and quantity analysis of them.

1. The prognostication analysis of methodological possibilities of using means of information-analytical, technical and scientific-metric support, graphic-demonstration ones on different information carriers, video-visual, multimedia, distant, instrumental-laboratory, scientific-methodical and technical-regulative, scientific-worldview, concrete scientific, disciplinary and interdisciplinary, scientific cognition in the sphere of state management and public administration, pedagogical, natural sciences, empirical and statistical ones and humanities, empirical and statistical has been conducted.

2. Methodical recommendations have been offered and the plan for studying professional training of future specialists in public administration and managers at higher educational institutions has been formed as fol-

lowing: methodological substantiation of the competence approach under conditions of information society of advanced knowledge; information-methodological support of organization of the educational-scientific process of professional training of future specialists in public administration and managers; elaboration and verification of the projected organization model of socio-cultural forms of pro-

fessional training of future specialists in public administration and managers by pedagogical research stages: cameral, diagnostic-screening, ascertaining, forming and expert. Pedagogical studies of methodical formation principles of communicative competences of administrative management of future specialists' professional training at HEIs will have promising development.

References

1. Blauberg, I. V., Iudin, E. G. (1972). Stanovlenie i suschnost sistemnogo pokhoda. Moscow: Izd-vo «Nauka», 270.
2. Kovbasiuk, Yu. V. et. al. (2011). Entsyklopediia derzhavnoho upravlinnia. Vol. 2: Metodolohiia derzhavnoho upravlinnia Kyiv: NADU, 692.
3. Fayol, H. (1917). Administration industrielle et générale. Paris: Dunod et Pinat, 11.
4. Druker, P. F. (2007). Zadachi menedzhmenta na XXI vek. Moscow: Viliams, 272.
5. Winter, R. (2009). Academic manager or managed academic? Academic identity schisms in higher education. Journal of Higher Education Policy and Management, 31 (2), 121–131. doi: <http://doi.org/10.1080/13600800902825835>
6. Hardy, C., Bhakoo, V., Maguire, S. (2020). A New Methodology for Supply Chain Management: Discourse Analysis and its Potential for Theoretical Advancement. Journal of Supply Chain Management, 56 (2), 19–35. doi: <http://doi.org/10.1111/jscm.12222>
7. Bagozzi, R.; Iacobucci, D. (Ed.) (2020). Some Thoughts on Happiness, Well-being, and a Meaningful Life for Academics. Continuing to Broaden the Marketing Concept. Review of Marketing Research, 17, 137-169. doi: <http://doi.org/10.1108/s1548-643520200000017014>
8. Ridei, N. M., Serhiienko, V. P. (Eds.) (2017). Multymodusni zasady pisliadyplomnoi osvity dlia staloho rozvytku. Kyiv: Vyd-vo NPU imeni M.P. Drahomanova, 641.
9. Ridei, N. M. (Ed.) (2018). Upravlinnia systemamy pisliadyplomnoi osvity dlia staloho rozvytku. Kyiv: Vyd-vo NPU imeni M.P. Drahomanova, 672.
10. Tytova, N. M. (2018). Teoretyko-metodychni osnovy psykhologo-pedahohichnoi pidhotovky maibutnikh pedahohiv profesiinoho navchannia. Kyiv: NPU imeni M.P. Drahomanova, 351.
11. Ridei, N. M.; Melnychuk, D. O. (Ed.) (2011). Stupeneva pidhotovka maibutnikh ekolohiv: teoriia i praktyka. Kherson: Vydavnytstvo Oldi-plius, 650.

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