

Methodological competence as the basis of fundamentalization of professional training of future teachers

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Abstract. The article is devoted to the analysis of the scientific and educational literature on the formation of methodological competence in the system of higher education. The authors of the article have grounded the competence approach as an important means to modernize the system of pedagogical higher education; the new approaches to training students in higher education are discussed. The essence of methodological competence as a basis of fundamentalization of training of future teachers is disclosed. The article reveals the structure of methodological competence and the ways of its formation of future teachers.

Keywords: *methodology, competence, a competitive approach, methodological competence, fundamentalization of education.*

Introduction. The implementation of educational and scientific potential of the country is greatly determined by the development of university science, social recognition and dissemination of various scientific, cultural and socio-political ideas. In the era of globalization all spheres of social activity require the use of different types of knowledge, creative experience, the importance of quality training of graduates, their education and upbringing. Thus, educative sector is crucial in shaping the competitiveness and developing national cultures, determines the level of professionalism of future graduates and provides progressive changes in science, technology, economy and education in the context of globalization.

The strategic goal of higher education is to develop a competent professional identity specialist who has the necessary knowledge, skills, practical skills and productive ways of thinking, philosophical, professional and civic qualities, he has the moral and ethical values that determine the ability to carry out successfully vocational and further training activity. Education, focused on the competitive approach, practical results, the experience of personal activity, leads to the fundamental changes in the approach to the organization of training.

Therefore, the formation of vital and professional competence of the individual is an extremely urgent problem that requires effective solutions.

The analysis of current research. The didactic foundations of the competence approach, a competency component of a modern personality are investigated by a number of the scientists: V. Bondar, S. Bondar, O. Ovcharuk, O. Pometun, O. Savchenko, S. Trubacheva, O. Pekhota and others.

The foreign researches P. Cooper, I. Jinga, B. G. McIntyre, N. P. Nworgu, P. Ololube, B. Stones, D. Woods and others have made a significant contribution to the investigation of the competence and methodological competence.

Methodological knowledge refers to the cognitive area and includes skills, whereas competencies are related to the practical application of knowledge and skills in real life situations. Therefore, the training of future teachers should be focused not only on interdisciplinary linking of the knowledge of various sciences relevant to the teaching methodology of a given subject, but also on the acquisition and development of competencies [15].

Competency should be the ultimate goal of teaching and the success of teaching methodology of a

given subject depends on how much attention is focused on the activation of methods, techniques and the system of teaching and learning in order to enable individuals to efficiently perform the tasks of professional teachers. Therefore, apart from knowledge, competency includes experiential, psychological, voluntary, and other determinants of an individual person together with his/her preparedness for carrying out a task, which derives from the training process. Methodological competencies refer to the ability of teachers to apply theoretical and experiential knowledge in their practical work with the aim of effective teaching [16].

The International Commission of the Council of Europe in its document considers the concept of «competence» as common or core competencies, basic skills, basic ways of training, cross-training and skills, the key idea, basic knowledge.

The experts of European Union characterize the term «competence» as «the ability to apply knowledge and skills» [14], which provides the active use of educational achievements in new situations.

Department of International standards for learning, achievement and education (IBSTPI) has defined the term «competence» as the ability to act efficiently, to perform a task or job. Competence includes a set of knowledge, skills and attitudes that allow the individual to act effectively or perform professional functions to achieve appropriate standards in professional sphere or activity. In order to facilitate the evaluation of competencies Department of International standards proposes to define such indicators as obtained knowledge, skills and educational achievement.

The problem of methodological competence, its structure and analysis of components was investigated by such outstanding researchers: as B. Adolph, M. Goryunov, A. Semibratova, A. Elizarov, M. Lyebedyev, O. Shilov, M. Kholodna and others.

The analytical review of the studies of the recent years regarding the concept of methodological competence has shown that the essence of this category has got different content that corresponds the qualification requirements of various professional categories.

The researcher T. Volobueva notes that methodological competence is defined by a set of knowledge, skills and abilities required for teacher exercise of professional activity: prognostic, design, object-methodical, organizational, pedagogical improvisation, expert [3].

So, V. Smirnova gives the following definition: methodological competence is interpreted as a general training readiness and capability to perform human tasks and responsibilities for mastering a certain level of education. Methodological competence is an integral component of professional competence, which can provide a creative focus of a teacher's pedagogic activity, provides an objective assessment of the capabilities and opportunities for the student, owning a total intellectual culture (research) activity, the ability to navigate in the integration processes and trends which are taking place in the world educational space [12].

M. Opachko considering the education and qualification category of «physics teacher» notes that methodological competence ensures the quality of training teachers in general and determines the effectiveness of the teacher's design of training and educational process of studying physics at school [9].

While E. Wegner thinks that methodological competence of the teachers of geography includes a system of methodological knowledge and skills that contribute to the student's ability to research and practical educational activities [2].

V. Danilovich understands this category as: methodological competence of the researchers in the sphere of physical culture and sports defines the effectiveness of the work of highly qualified scientific personnel determined not so much by knowledge as by the ability to «get» and interpret the knowledge creatively, so they should have a high level of methodological training, application of sophisticated research skills to find new solutions to unconventional problems that cannot be reached by the usual methods [5].

The foreign researches consider the general methodological competences as designing learning activity for large, medium, short times; use knowledge of pedagogy and specialty didactic for design of curriculum at school decision; designing, organizing and realizing educational activity from curricular perspective; use of teaching strategies in accordance with the curricular cycle, the objectives and the type of lesson; resources management for efficiency of didactic approach [15].

N. P. Ololube has come to the conclusion that methodological competencies could be defined as the procedures of doing something and having enough skill and knowledge to carry out the function. In addition, methodological competencies could further be characterized based on their functional elements: to adapt to effective work methods; to analyze the task to be performed; to begin the process; to perform the task and to analyze ones procedures [16].

Thus, the essence of this category is that methodological competence ensures the appropriate education and qualification level and readiness future specialists to self-organization of all kinds of productive professional activity.

The aim of the study. The article is to outline the structure and content of the methodological competence of future teachers.

The main material. To understand the essence of methodological competence it is necessary to consider the interpretation of the categories «methodology» and «competence». In Philosophical Dictionaries «methodology» is

considered as: 1) a system of principles and methods of organization and construction of theoretical and practical work and theory of this system [13]; 2) teaching methods of learning and transformation of reality; 3) a set of research methods used in a certain science [11, p. 12].

The concept of «competency» and «competence» have different meanings, the outstanding scientists V. Krayevskyy and O. Khutorskyy distinguish the term «competency» and «competence», explaining that competence in Latin «competentia» means a number of issues on which people well aware, informed and has some experience. Competency in a particular sphere means a combination of relevant knowledge, experience and abilities that allow to judge reasonably this matter and act effectively in it.

In Ukraine competency approach is actively implemented in education. The famous scholars (O. Savchenko, O. Pometun and others) has developed not only general questions of competency approach but also the questions of the hierarchy of competencies (key, sectoral, subject) [10].

Fundamentalization of specialist training is the most important direction of the reform of the education system, which provides the direction to ensure that a future specialist in the course of learning could be able to obtain the necessary basic knowledge, formed a unified world-view scientific system based on modern concepts of science, its methods and apply a creative experience in the professional activity.

This approach makes it possible to obtain the necessary knowledge not only of the chosen specialty, but also with related to it science, including the natural sciences and humanities knowledge and to form professional skills and knowledge, which is an important part of professionalism on this basis.

Fundamentalization of learning creates the conditions for export as knowledge and technologies in the integration of higher education in Ukraine in the European and world educational community. Thus fundamentalization as a basis for innovative processes involves learning basic competencies that provide the qualitative changes in higher education by modernization of the content of the subjects and methodological support of educational process.

The result of fundamental higher education is the formation of a future specialist with modern scientific thinking based on generalized, universal knowledge, inner needs of self-development, self-education, the formation of general culture, the desire for self-actualization and self-realization in the professional world.

Fundamentalization of pedagogical education of future specialists provides an opportunity to consider it in the context of interaction with an important part of training – methodological competence. The process of fundamentalization of pedagogical education is a means to move a certain set of pedagogical knowledge in new quality-professional teaching knowledge, including important components: the modern paradigm of pedagogy (the humanistic, cultural, knowledge, management paradigm); the basic methodological principles, including, philosophical, general, specific research; methodological approaches to the study of professional training in high school (systemic, culturological, humanistic, personally-oriented, activity-based, synergistic); specific approaches professional activity of future teachers (personally-

oriented, competence-based, activity-based, contextual, environmental, acmeological, axiological); methodological tools teacher (pedagogical technologies, forms, methods, techniques, tools).

The category «pedagogical paradigm» is defined as: a sample, a standard, a certain value orientation on solving specific educational and research objectives; a set of stable characteristics of the various models of theoretical and practical educational activity and their interactions, regardless of their level of reflection and performance, in the context of propaedeutics of educational process [7, p. 217]. A future specialist should know the essential differences of the paradigms of pedagogical science, formed in different periods of socio-cultural changes, the philosophical discourse of time and the creative potential of educational thought, namely, the paradigm of authoritarian and peremptory pedagogy (distrust of a teacher to a student, the desire to limit his creative independence, but this approach encourages responsibility) and humane pedagogics (Shalva Amonashvili) (a person acquires the value of the goal, not the means, and the effectiveness of the educational process is based on the principles of interaction, understanding, equality and respect); the paradigm of cognitive and personal pedagogy (E. Yamburg) (focused on the cognitive development of the individual, subject-specific curriculum with the predicted result, thereby preparing the conditions of modern socio-cultural environment); «polyphonic» and «polyparadigmatic» personally-oriented pedagogy of modernity (characterized by polylogue as the main communication means of an outdoor teaching space, as a mandatory condition of equality of actions of all subjects of pedagogical process aimed at value determination, self-actualization of a personality). Therefore, the future teacher has to realize that different paradigms are variously presented as the purpose of pedagogical activity, its principles and content, means, methods, performance criteria and educational interaction.

The basis of fundamentalization of professional training of future teachers is necessary knowledge of the basic methodological principles – the basic assumptions of scientific theories that function as justification of its content and determine the direction and method of studying the object of research (philosophical, general scientific, and specifically-scientific): determinism, the development and unity of psyche and activity, objectivity, systematic, personally-oriented approach, intersubjectivity, historicism, reproducibility, scientific, continuity, compliance, integrity, consistency, complementarity. The principles are direct methodology of scientific bases of pedagogical process, research and determine their methodology, basic theoretical concepts and hypotheses.

The main landmark of the educational process are the methodological approaches which every teacher needs to master. One of the leading methodological approaches is a systematic approach, the essence of which is that the object of study as a whole of many elements in the totality of relations and connections between them, that is as a system [8, p. 159].

The activity-based approach to teaching (B. Ananiev, L. Vygotsky, A. Leontiev, S. Rubinstein, D. Elkonin) is generally accepted in pedagogy and psychology. According to this approach, a personality is viewed as a subject

of activity, which itself is formed in activity and fellowship with other people, determines the nature of this activity, which is the basis, means and a decisive condition for the development of a personality in the process of purposeful human interaction with the environment.

A synergistic approach is used as a scientific tool, in particular, in the studies of the educational system, according to which the personality and the educational system are complex, holistic, open non-linear systems that have the ability to self-organization. The essence of the synergetic approach is to increase the activity of the subjects, self-actualization, aimed at mastering the methods of self-education, transforming learning in the creative process.

The personal approach in education focuses the educational process on the personality as the goal, forming the subject-subject relations, result and main criterion of its effectiveness.

Culturological approach is considered as a set of theoretical and methodological provisions and organizational and pedagogical measures aimed at creating the conditions for the development and translation of teaching values and technologies that provide creative self-realization of a teacher's personality in professional activity [9, p.166].

The humanistic approach leads to the change of the authoritarian and disciplinary models of training and education focused on the personality, the essential characteristics of which are individualization, creation of the conditions for self-development and self-identity, conscious life and professional self-determination.

The component of methodological competence has specific approaches to the professional activity of future teachers: a learner-centered, competency-based, activity-based, contextual, environmental, acmeological, axiological, individualized and differentiated.

These approaches contribute to the fact that in the educational process the teacher takes into account the individual characteristics, interests and needs of the students, creates the appropriate conditions for self-development of talents, abilities and creative potential of a personality.

The use of specific approaches contributes to the formation of skills of future professionals to design and simulate their activity, ability to apply creatively the acquired knowledge and experience in practical activity, to solve specific professional tasks, to create a developmental education space. The approaches provide the choice of methodological tools of a specialist, the content, the technology of the educational process, the appropriate forms, the methods and means of education.

The importance of professional formation of the future teacher is methodical training, to equip them with innovative technology training and education, methods of planning and management of teaching activity, skills for full inclusion in the creative professional activity.

The ways of formation of methodical preparation of future teachers are: the students' mastery of modern teaching technologies, teaching methods, teaching tools and the formation of readiness of the students for comparative analysis and creative modification of technologies, techniques, methods, forms of education taking into account the objectives, tasks and specifics of educational

process, improvement of technologies, techniques, means of training in research, practical and project activity of the students [4].

The conclusions. Thus, methodological competence of the teacher is knowledge, skills and experience to implement the educational process effectively, to provide a productive educational-cognitive activity of the students, to contribute to their vital and professional self-determination. The essence of methodological competence is the ability of the future teacher to use methodological knowledge in accordance with the educational

areas of professional activity, to apply methodological tools as a means of providing creative activity effectively. The structure of the methodological competence includes the modern paradigm of pedagogical science; the basic methodological principles; the methodological approaches to the study of the problems of professional training in higher education; the specific approaches to professional activity of future teachers; methodical tools of a teacher. Methodological competence provides fundamentality of training of future teachers, their readiness to professional activity in modern conditions of education development.

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Методологическая компетентность как основа фундаментализации профессиональной подготовки будущих педагогов

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Аннотация. В статье проведен анализ научно-педагогической литературы по проблеме формирования методологической компетентности в системе высшего образования. Обосновывается компетентностный подход как важный способ модернизации высшего педагогического образования, рассмотрены современные подходы к подготовке студентов в высшем учебном заведении. Рассматривается сущность методологической компетентности как основы фундаментализации профессиональной подготовки будущих педагогов. Раскрывается структура методологической компетентности и пути её формирования у будущих педагогов.

Ключевые слова: методология, компетентность, компетентностный подход, методологическая компетентность, фундаментализация образования.