## Natalia Kolomiiets,

Philosophy Doctor (Pedagogics), Associate Professor of the Education Technologies and Pedagogic Creativity Chair of Pavlo Tychyna Uman State Pedagogical University Irina Reznichenko,

Philosophy Doctor (Pedagogics), Associate Professor of the Education Technologies and Pedagogic Creativity Chair of Pavlo Tychyna Uman State Pedagogical University

## TO THE QUESTION OF RESEARCH COMPETENCE OF FUTURE TEACHERS OF HIGHER EDUCATION INSTITUTIONS

In the context of education reform and social transformations, the requirements for the activities of all educators, including higher education teachers, are changing. Changes in the field of their professional competencies are irreversible. There is a need for conceptualization and harmonization of professional activity of teachers of higher education institutions.

Scientific research work is a component of professional and pedagogical activity of a teacher of higher education and this promotes the integration of education and science in the educational process of higher education. Its successful implementation provides a modern level of content and methods of teaching disciplines, the introduction of teacher development in the educational process as a necessary condition for the training of competitive professionals; wide involvement of gifted youth in research work, project development and conducting scientific experiments.

Modern theory and practice of higher pedagogical education has accumulated some experience, which covers various aspects of professional and pedagogical training of future teachers. In particular, scientific works as domestic authors (O. Babenko, V. Bondar, L. Burchak, O. Dubasenyuk, M. Yevtukh, O. Zablocka, S. Martynenko, N. Nychkalo, O. Pometun, O. Savchenko, S. Sysoeva, Y. Uvarov, N. Chaichenko, N. Shiyan, O. Yaroshenko, etc.), and foreign (V. Bolotov, E. Zeyer, I. Zimnya, A. Markova, J. Raven, A. Khutorsky, etc.).

Research competence is a holistic, integrative quality of personality that combines knowledge, skills, abilities, experience of the researcher, values and personal qualities and is manifested in the willingness and ability to carry out research activities to obtain new knowledge through the use of scientific knowledge, application creative approach in goal setting, planning, decision making, analysis and evaluation of research results [1].

The structure of the research competence of a teacher of a higher education institution includes the following components:

- 1) motivational value reflects the system of values, needs and motives of research activities;
- 2) cognitive reflects the system of methodological, professional, interdisciplinary scientific knowledge of research activities;
- procedural-activity involves the ability to select adequate goals and objectives of research methods and data processing, analyze scientific facts, discuss and interpret the results of research, implement them in practice;
- information and communication involves the possession of methods of data collection in accordance with the hypotheses, the creation of arrays of empirical data, processing of various information sources, etc.;
- 5) communicative involves the ability to work with respondents; cooperate with colleagues in research activities;
- 6) personal and creative reflects the level of development of creative qualities of the individual;
- 7) professional and reflexive reflects the ability to understand and evaluate the process and result of their own research activities; ability to self-regulation [4, p. 6].

The effective formation of research competence of future teachers of higher education institutions is facilitated by the comprehensive implementation of organizational and pedagogical, psychological, and didactic conditions throughout the educational process. The first steps in this direction at the level of free economic zones, faculties and departments is the creation of an active scientific environment and modernization, in accordance with the competence approach, content, forms and methods of the educational process [3, p. 127].

Pedagogical conditions for the formation of research skills of future teachers are:

- stimulating the formation of motivational readiness for teaching and research activities;
- diversification of teaching methods used in seminars;
- use of information and communication technologies;
- professional competence of the teacher, which is manifested in the possession of methods of activating educational and research activities.

One of the effective methods of stimulating the formation of motivational readiness for teaching and research activities of future teachers is a retrospective analysis of pedagogical situations from students' own experience. In the process of such analysis, the student rethinks the situation, considers it both in terms of himself "then" and himself "present", and in terms of his teacher. Retrospective analysis of pedagogical situations creates cognitive motivation for learning, stimulates students to develop the need and interest in the formation of research skills, because the student realizes that the teacher in a given situation, not knowing the students well, without proper diagnosis, chose not the best way to develop. solving a pedagogical task.

The use of intellectual tasks as a semantic basis for the diversification of teaching methods stimulates students' thinking. If they are used in all parts of the educational process, they open and set in motion cognitive resources, form a research style of mental activity. In the process of organizing general pedagogical training, a system of cognitive tasks is used, which are aimed at mastering students' intellectual skills. Particularly promising in this regard are the tasks in which there is a deep transformation of the original composition of their conditions. Creative reconstruction of the main structural components of the task, their inclusion in new communication systems actively contributes to the formation of independent thinking, develops originality and ingenuity of future teachers [4, p. 16].

In teaching, it is effective to use not individual isolated problems, but their sound system. In these conditions, the activity acquires personal significance for the student, which is the basis for the formation of motivational and value component of research competence. In the process of performing a system of problem tasks, it is important to form not only an understanding of problems and ways to solve them, but also the personal attitude of future teachers to these problems, to develop the ability to evaluate them. This skill is effectively formed in the process of organizing a dispute, which involves a clash of opinions, differences in views on a range of issues, a verbal struggle in which each of the opponents defends his rightness. As various, and even contradictory opinions, judgments, positions are expressed, it is important to teach students to defend them based on previously obtained theoretical knowledge. In the course of such disputes, questions are asked that may have an alternative form of "either - or", but they can not be given a clear unambiguous correct answer. The task of the teacher, directing the dispute, to show each position, then in its statement, then in denial.

Diversification of teaching methods is possible through the use of information and communication technologies. In the scientific literature, the concept of information and communication technologies is defined as a set of methods and software tools for collecting, organizing, storing, processing, transmitting and presenting information that expands people's knowledge and develops their ability to manage technical and social problems [2, p. 36].

In the process of studying pedagogical disciplines, multimedia projects are effectively used as a form of organization of independent cognitive activity, the result of which is student interactive computer development. As a rule, students are invited to carry out research projects, the result of which is not only a reflection of existing approaches to solving certain pedagogical problems, but also to diagnose the level of formation of certain skills, attitudes, qualities of participants in the educational process. On the basis of the analysis of the received research data students should develop certain methodical recommendations, councils, to offer the ways of the decision of pedagogical problems. During the implementation of a multimedia project, students perform the following research activities: planning work on the project; information search; selection of material for diagnosis; analysis of the obtained diagnostic results; synthesis of material obtained from research work and various sources of information; registration of the final product of the project activity; preparation for public defense of the project; public defense of the project; analysis and self-analysis of the course and results of activities.

An important condition for the formation of research competence of future teachers is the professional competence of the teacher, which is manifested in the possession of the method of intensification of educational and research activities. Signs of such competence of the teacher are: motivation of the teacher for research activity; mastery of methods of organizing joint search activities with students; joint reflection of activity with students. The teacher acts before the students as a source of deep knowledge, a bearer of high erudition, a standard of organization of educational and research activities, a model for solving pedagogical problems that arise in the educational process. The peculiarity of the teacher's research activity is that the teacher implements the idea of active, fruitful action through his own personality. In other words: the personality of the creator-researcher and the tool of creativity in pedagogy coincide, the teacher's self-expression plays a huge role here.

Thus, the formation of research competence of future teachers of higher education institutions is an urgent need today. A teacher who is able and ready to carry out innovative activities in a higher education institution can happen when he realizes himself as a professional, has an attitude to the creative perception of existing innovative experience and its necessary transformation.

## References

- 1. Holovan M. S., Yatsenko V. V. (2012). Sutnist ta zmist poniattia «doslidnytska kompetentnist». *Teoriia ta metodyka navchannia fundamentalnykh dystsyplin u vyshchii shkoli*: zbirnyk naukovykh prats. Kryvyi Rih: Vydavnychyi viddil NMetAU, Issue VII. 55–62 [in Ukrainian].
- 2. Kademiia, M. Yu. (2011). Informatsiino-komunikatsiini tekhnolohii navchannia: slovnyk-hlosarii. Lviv: SPOLOM [in Ukrainian].
- 3. Semakova, T. O., Silishchenko, O. P. (2012). Naukovo-doslidnytska robota yak shliakh formuvannia profesiinoi kompetentnosti vykladacha. *Informatsiini tekhnolohii v osviti, nautsi ta vyrobnytstvi*, 1(1), 124–127 [in Ukrainian].
- 4. Sysoieva, S. O. (2016). Rozvytok doslidnytskoi kompetentnosti vykladachiv vyshchoi shkoly. Kyiv [in Ukrainian].