PHILOLOGICAL SCIENCES

ESSENCE AND CONTENT OF THE CONCEPT OF FORMATION OF SCIENTIFIC-RESEARCH COMPETENCES OF STUDENTS

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Abstract
Different points of view are considered on the content side of the students' research competences. Research competences are characterized through the prism of such concepts as «scientific literacy», «scientific discourse», «scientific writing», «scientific ethics» and «culture of scientific speech». Their structure is represented by interconnected components: motivational-value, cognitive (cognitive), communicative, active, reflective-valuatory. Attention is paid to the principles of formation of research competences in higher education institutions, especially professional orientation, systematicity, comprehensiveness, creative initiative and interest.

Keywords: research competences, students, abilities, knowledge, skills, higher education.

The quality of research activities of students is largely determined by the level of training in their research competences. The organization and support of research work of students (NRS) are involved, first of all, faculties, departments, library of the university. However, the current problem remains the targeted development and formation of students' specialized knowledge and skills related to scientific research, preparation of publications and presentations at scientific events. Students have significant potential for integration into research initiatives.

Referring to the competence approach as the starting point in the process of formation of competences of the person, it is necessary to clarify the concepts «competence» and «competence». The analysis of scientific literature on this subject shows that nowadays they are understood in different ways: as parity, as subordinates, as different. However, most authors share these concepts (E. F. Zeer, I. A. Winter, I. S. Pilko, A. V. Juthorskaja et al.). When these two terms are differentiated, competence is understood as the already established personality quality (characteristic) of the person [1], and competence is defined as certain strategies for successful activity, abilities and skills that ensure the solution of the tasks assigned, obstacles and achieving the necessary goal.

The article aims to show various approaches to the definition of essence and content of the concept «research competence». The analysis of literature confirms that today in science there is a well-established knowledge base, necessary for substantiating the essential characteristics of scientific and research competences of students. Some aspects related to the formation of research activities of students have been reflected in dissertations of M. A. Beck, A. S. Zueva, B. V. Pershutkin [2]. The structure of research competences of the undergraduates are considered by E. I. Yavichenko, A. S. Barvosinok [1] et al. Analysis of scientific publications allows to conclude that despite the complexity of the problem, there is a common opinion on the need for students to form research competences. The distinction between teaching and research competences and scientific research is noted by S. N. Lukashenka. The author refers to the teaching and research competences: - systematize, generalize and critically evaluate information for solving the tasks; - analyze different approaches to solve the tasks, methods, sources of information; - collect and compare data for the preparation of information and/ or analytical reports, writing abstracts, reports; - to compare the results of studies and transmit them in the form of specific recommendations, make forecasts, draw conclusions; - solve research tasks using samples, algorithms and schemes [6, p. 12]. To the research and development competences of S. N. Lukashenka refers ability: - to see and formulate a problem, determine the purpose of research work; - to understand and justify the relevance, novelty, theoretical and practical significance of research; - to independently master new methods of research, acquire knowledge, including through information technologies; - to produce ideas, propose hypotheses, plan and conduct research using own algorithms and schemes; - to represent and defend the results of their work. In our view, the content side of scientific research competences of students is characterized by a number of concepts: «scientific literacy», «scientific discourse», «scientific writing», «scientific ethics» and «culture of scientific speech». The development of scientific literacy can be seen as a potential opportunity to successfully learn and engage in research work not only at higher education institutions, but also after completing studies, throughout life. The formation of scientific literacy is the development of a certain way of thinking, suitable for a specific environment, the scientific community. Thus, G. V. Varganova and E. A. Pavlichenko in articles cover issues of scientific literacy, project activities of municipal libraries, popularization of science in public libraries [4; 17]. The scientific discourse, which involves interpretation and transfer of knowledge, provides communication participants with prompt and qualitative information «about the state of affairs in this scientific area on this subject». Scientific discourse, according to M. A. Fedorova, «is a text in the broad sense, functioning in the scientific sphere of communication and inseparable from communicative practice» [3, p. 102]. It can be assumed that

scientific discourse differs from other types of discourse in its reliability and logic. M. Muton (M. Mouton), E. Rutman-Le Grange (I. Rootman-Le Grange) scientific discourse is considered as a specialized language used to formulate clear and objective arguments in describing the results of an experiment. The aim of scientific writing is a complete and clear structuring of thoughts, logical presentation of objective information, which is inherent in reasonableness and proofs. The importance of teaching the skills of scientific writing emphasized E. A. Dougareva and R. K. Tori [8], etc. k. The scientific style allows to preserve, develop and disseminate scientific knowledge. The website of the Leeds University Library (UK), in the section «Teaching and research support», determined that the scientific writing has a structure, objectivity, critical thinking, and it must be clear, concise, precise and logical. Providing information and advisory support to students on the basis of the library of the higher education institution through specially created centers of scientific writing will contribute to the development of this skill. The relations that operate in the process of research work between teachers and students, determines scientific ethics. The term «ethics» was introduced for the first time by the ancient Greek philosopher and disciple of Plato - Aristotle. The obligation to observe the rules of conduct, punctuality, good faith attitude to activities, respect for other people's work, goodwill towards participants in communication - necessary components of scientific ethics. E. V. Romanov believes that the ethics of science touches on many aspects which are fundamentally important from a moral and legal point of view. It is the choice of topic and methods of research, the evaluation of results, rules of scientific discussion and criticism, questions of authorship and co-authorship etc. [5, p. 71]. etc. From the position of philology 3.H. Athens defines scientific speech as «a special layer of language culture, having a specificity, an integral part of which are terms, their definition and interpretation» [1, p. 110]. It should be noted that the culture of scientific discourse in most publications is considered to apply to undergraduates and graduate students, as well as to already accomplished scientists, to a lesser extent - to students. As a complex subjective education, the culture of scientific speech includes personality qualities and traits of the individual, intellectual development, etc. E. D. Volodin, considering the features of research competences of students of higher education institutions, highlights three main components: cognitive, operational and value, and activity. According to the author, «successful formation of scientific research competences of students is possible when they perform in combination with the following activities: teaching, academic research work (IRRS) and non-academic research activities (IRRS)» [6, p. 324]. However, it should be noted that IRSD and NIRS are not synonymous. EIHU is part of the curriculum, implies activities in the learning process. NIRS implies autonomy and voluntariness in relation to work, which promotes the development of creative initiative, identification of individual inclinations and research interests of the student. The structure of the students' research competence can be presented as interrelated components: - motivational-value, defining readiness for scientific search; - cognitive (cognitive), implying knowledge of scientific terminology, ability to analyze, Assimilation of scientific information, detection of understanding/ misunderstanding of the subject of a scientific problem; - communicative, promoting interaction with participants of scientific activity and presentation of research results; - active, defining the goal of scientific research and the sequence of steps to achieve it, also understanding the objectives of scientific research activities in the context of studying at an institution of higher education; - reflexive-evaluative, the motivation of self-assessment and self-analysis of actions related to student research work. In our opinion, the formation of research competence should be carried out according to the principles of professional orientation, systematicity, complexity, creative initiative and interest. According to V. E. Leontchikov, «there was an understanding of the need to move towards active self-acquisition by students themselves of necessary knowledge and skills» [7, p. 105]. The principle of comprehensiveness implies the unity of traditional and interactive educational technologies, interaction of departments, libraries, other structural units of higher education institutions in order to provide conditions for students' development of research skills. In our opinion, these competences have a significant specificity, which implies the possession of scientific literacy, scientific discourse, scientific writing, scientific ethics, culture of scientific speech, also research skills (Formulation of the subject, subject, topic of research, setting of goals and objectives, choice of methods, collection of material, experiment, creation of scientific text, statistical processing of data obtained and presentation of results in tabular and graphical forms, oral public presentation and defense of results, writing scientific publication etc.). The necessary condition for the formation of competences in students is involvement in scientific conferences, research work. Thus, the formation of research competences of students is an essential element in the work of not only employees of the department of higher education institution, but also libraries as a structural unit that implements educational and educational functions.

References:

1. Athens, 3. H. Culture of scientific speech: terms and their synonyms / 3. H. Athens // West. Musk. oneta. Ser. 19, Linguistics and Intercultural Communication. - 2011. - 3. - C. 101-111.

2. Beck, M. A. Pedagogical conditions of mastering the basic competences of research activity by students of the bachelor's degree in «philology»: autoreff. Dis. Kant.pedo.sciences: 13.00.08 / M. A. Beck; Udmurt State. Onut. - Izhevsk, 2011. - 23 p

3. Alexinova, G. T. Formation of research competence in the students of university under conditions of transition to new standards of study [Electronic resource] / G. T. Alexinova, S. A. Alexinova // Concept. - 2016. - 3. - Access mode: http://e-koncept.ru/2016/76028.htm. - Date of access: 19.01.2022.

4. Gajikurbanova, G. Structure of research competences of the future teacher/ G. Gajikurbanova // West.

Social-pedagogical Institute. - 2016. - 2 (18). - P. 55-63.

5. Koveshnykova, H. A. Essence and definition of the concept of scientific research competence of future bachelor's degrees in design/ H. A. Koveshnykova // Education and society. - 2017. - 5-6. - C. 29 - 33.

6. Tagiarov, V. K. Formation of the student's research competence in the educational process of military university: autoref. dis.kand. ped.sciences: 13.00.08/ V. K.Tagirov; Orenburg State oct. - Orenburg, 2009. - 23 p.

7. Khutorskoye, A. Key competences as a component of the personality-oriented paradigm of education/ A. Khutorskoye // Popular education. - 2003. - 2. - P. 58-64.

8. Volodina, E. D. Features of formation of research competences of students/ E. D. Volodina // Modern continuous education and innovative development: V Vserenos. arsz-law. conf. Serpukhov, 23-24 Apr. 2015 g. - Serpukhov, 2015. - C. 323-326.

9. Gajikurbanova, G. M. Structure of research competences of the future teacher/ G. M. Gajikurbanova // Westn. Social-pedagogy. - 2016. - 2 (18). - P. 55-63.

10. Dugareva, E. A. Academic Writing in the Context of University/ E. A. Dougareva, R. K. Tori // Science through the prism of time. - 2021. - 9 (54). - C. 34-38.