

Formation of digital competence in the scientific research of a master student in professional education in the field of physical education and sports

UDC 37.032



PhD, Associate Professor **T.A. Shchuchka**¹

N.A. Gnezdilova¹

Dr. Hab., Professor **E.N. Gerasimova**¹

¹Bunin Yelets State University, Yelets

Corresponding author: tasiaelez@mail.ru

Received by the editorial office on 12.01.2024

Abstract

Objective of the study was to identify and theoretically justify the use of methodological approaches in solving the problem of developing digital competence in the scientific research of a master's student in vocational education and management in the field of physical culture and sports.

Methods and structure of the study. An analysis of the scientific literature related to the research topic was carried out [1, 3, 4, 5].

Results and conclusions. In solving the problem of developing digital competence in a scientific study of a master's student in vocational education and management in the field of physical culture and sports, the use of such methodological approaches as problem-oriented and active learning, competency-based, systemic, personality-oriented, integrative, and activity-based is proposed.

It is noted that the methodological approaches under consideration make it possible to expand the content of the research activities of a master's student in the field of vocational education and management in the field of physical culture and sports, which helps to increase his independent creative activity; development of skills in searching and analyzing a large amount of information, the ability to apply various methods of objective assessment of one's work, as well as the formation of other professional competencies and personal qualities that meet the current needs of modern practice.

Keywords: *methodological approaches, integration, digital competence in the scientific research of a master's student in professional education and management in the field of physical culture and sports.*

Introduction. The sociocultural situation that has developed in modern Russia has not only brought about profound changes in various spheres of public life, but also contributed to global updates in the education system. One of the updates is the so-called integrative nature of education, aimed at consolidating various branches of scientific knowledge, including in the field of humanities, in a single educational space accumulating sciences and scientific disciplines based on their contiguity and complementarity. At the current stage of development of education, its integrative nature when studying the process of per-

sonality development in pedagogically oriented works requires turning to related subject areas of scientific knowledge.

Objective of the study was to identify and theoretically justify the use of methodological approaches in solving the problem of developing digital competence in the scientific research of a master's student in vocational education and management in the field of physical culture and sports.

Methods and structure of the study. An analysis of the scientific literature related to the research topic was carried out [1, 3, 4, 5].



Results of the study and discussion. The process of digitalization of university training for students, regardless of the level of higher education they receive (bachelor's, specialist's or master's), is given a very significant place in pedagogical science, as evidenced by many different approaches to the study of this problem [6].

One of the most important theoretical directions in the modern development of the educational space is student-oriented learning, based, among other things, on the digitalization of education, that is, on the introduction of the achievements of digital technologies into the educational process. Within the framework of a person-oriented approach, it becomes possible to structure psychological and pedagogical conditions, select algorithms, tools and methods for conducting research work (R&D) of a master's student specializing in professional education in the field of physical culture and sports, as well as analyze the results of R&D.

However, despite the fact that the effect of introducing digital technologies into the educational process is undeniably high and in terms of the personal development of students its importance cannot be overestimated, traditional education and its inherent methods and methodologies, created in other living conditions, played a positive role in their time. In the new conditions, declarative methods of presenting information, stating the nature of "knowledge" control, contribute to the formation of students' underestimation of the role of independent activity in the formation of the necessary competence.

A modern form of active learning in higher education, thanks to the introduction of which it becomes possible to overcome these inconsistencies, is contextual learning. It models a professional context, that is, it gives the student the opportunity to express himself in professional activities. A form of contextual learning can be a business game that models the subject world of a future specialist and implements the basic principles of joint interaction between players.

The most important component of the educational process is the problem-oriented approach, that is, immersing students in situations that require an immediate solution. The problem-based approach requires the student to concentrate his attention on the problem and the possibilities for solving it. The student is required to be able to formulate and analyze the problem, identify ways and means to eliminate it. The use of a problem-oriented approach is directly re-

lated to the formation of students' motivation to master professional knowledge, increasing personal self-esteem, and acquiring a sense of confidence in their knowledge.

Professor V.V. Grinshkun in his works focuses on the integrative approach, considering the main goal of integration to be the unification of disparate parts and functions into a single whole. According to the scientist, an integrative approach to the development of digitalization tools for higher education lies in their typification, the rejection of the excessive variety of such tools and methods that solve the same problems, but at the same time differ in their characteristics, as well as in reducing methodological, content, technological and interface differences in the functioning and application of these tools [2].

A systematic approach allows us to identify and argue the criteria for the evolution of digital competence in the scientific research of a master's student in teacher education, which in their complex determined the productivity of pedagogical and psychological technologies used in higher education. Along with this, based on a systematic approach, it is possible to identify the most significant connections that influence the strength and stability of the process of introducing innovative (developmental) technologies in higher education; to structure problematic situations of the formation of digital competence in the scientific research of a master's student in the field of professional education and management in the field of physical culture and sports.

Within the framework of the activity approach, special attention is paid to the study of the pedagogical and psychological conditions for the realization of scientific potential in educational and research activities using information and communication technologies (ICT), demonstrating the level of personal potential, the horizons of the undergraduate, and the possibilities of the digital educational environment; to identify the necessary methods and technologies used in the preparation of tasks for conducting educational and training sessions using ICT, which are aimed at mastering the fundamentals of scientific knowledge and methods of theoretical research; to identify a model for the formation of digital competence in the scientific research of a master's student in the field of professional education and management in the field of physical culture and sports.

In accordance with the competency-based approach, professionally significant qualities of future



specialists, which are formed in the process of undergraduate research activities, are correlated with the components of digital competence. The course we offer "Information technologies in science and education" ensures the formation of digital competence at the subject level, the course "Methodology of research activities using ICT" - at the supra-subject level.

Testing of identified productive ideas in the Yeletsk branch of the Russian New University and in the Yeletsk State University named after I.A. Bunin allowed us to develop the concept of forming digital competence in the scientific research of a master's student in the field of professional education and management in the field of physical culture and sports.

Conclusions. The methodological approaches under consideration make it possible to expand the content of the research activities of a master's student specializing in vocational education and management in the field of physical culture and sports, which helps to increase his independent creative activity, develop skills in searching and analyzing a large amount of information, the ability to apply various methods of objective assessment of his work, and as well as the formation of other professional competencies and personal qualities that meet the current needs of modern practice.

References

1. Akulova O.V., Pisareva S.A. Kompetentnostnyy podkhod k obnovleniyu shkolnogo obrazovaniya kak neobkhodimoye usloviye integratsii Rossii v mirovoye soobshchestvo. *Pedagogika novomu veku: idei na budushcheye...* Gertsenovskiy chteniya. 1999: mezhregionalnyy sbornik nauchnykh trudov: v 2 ch. Tryapitsina A.P. et al. [ed.]. 2000. Part 1. p. 48.
2. Grinshkun V.V. Razvitiye integrativnykh podkhodov k sozdaniyu sredstv tsifrovizatsii obrazovaniya. *Doct. diss. abstract (Hab.)*. Moscow, 2004.
3. Karpova E.V. Metasistemnyy analiz motivatsii uchebnoy deyatel'nosti v strukture lichnosti. *Sibirskiy psikholog. zhurnal*. 2006. No. 24. pp. 59-64.
4. Kraevsky V.V., Berezhnova E.V. *Metodologiya pedagogiki: novyy etap*. Moscow, 2006. 394 p.
5. Kudryavtsev V.T., Urazalieva G.K. Predposylki lichnostnogo rosta v razvivayushchem obrazovanii. *Voprosy psikhologii*. 2005. No. 4. pp. 52-62.
6. Yakovleva E.V. Tsifrovaya kompetentnost budushchego pedagoga: komponentnyy sostav [Electronic resource]. *Nauchno-metodicheskiy elektronnyy zhurnal «Kontsept»*. 2021. No. 04 (April). pp. 46-57. Available at: <http://e-koncept.ru/2021/211021.htm>.