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PROFESSIONAL COMPETENCE DEVELOPMENT OF TEACHING STAFF IN HIGHER EDUCATION INSTITUTIONS UNDER MARTIAL LAW

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ABSTRACT

The **purpose** of this article is to show the problems of professional competence development of higher-education teaching staff under martial law. The relevance and necessity of developing teachers' professional competence focused on specific requirements and challenges, in particular in the conditions of martial law, is emphasized.

Methodology. In the research process, general scientific and pedagogical research methods were used, basically theoretical ones: analysis, synthesis, classification, systematization, and generalization.

Results. Among the specific components of the professional competence of teachers under conditions of martial law, the following are identified: safety of life, health, and labor protection; rules and behavior in emergency situations during war; adaptation of educational programs; ability for crisis management of the educational process and of teaching students; teaching in extraordinary conditions; moral, emotional, and psychological support of colleagues and students in stressful situations; effective use of information and digital technologies; ability to organize inclusive education with students with special educational needs; personal qualities (courage, resilience, patriotism, dedication to one's students and studies, the ability to introduce classes in conditions of instability and promote a strong spirit among students); and cooperation with the military armed forces of Ukraine, police, administration, humanitarian organizations, stakeholders, etc.

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Conclusions. *The model of professional competence development of teaching staff in higher education institutions under martial law is developed in the form of a graph. Some components of this model are reviewed. The result of the developed model will make it possible to provide higher quality and safer education in difficult conditions, in particular in the fields of professional and technological education.*

KEYWORDS: *Martial Law, Higher Education Institutions, Teaching Staff, Professional Competence.*

INTRODUCTION

The introduction of martial law in our country on February 24, 2022 in connection with the military aggression of the Russian Federation against Ukraine will require highly qualified scientific and pedagogical staff (SPS) of higher education institutions (HEIs) capable to adapt to wartime changes effectively, to organize the educational process in non-standard situations during hostilities qualitatively, to create safe conditions for students to obtain an education. In this regard, it should be noted the extreme urgency and importance of researching the problem of professional competence development for scientific and pedagogical staff of higher education in the conditions of martial law.

The professional competence development for scientific and pedagogical staff is connected with the fact that in the conditions of war, new functions and behavior of the staff are appeared and new competencies are developed in emergency situations.

The full-scale invasion of the Russian Federation against Ukraine led to losses. As for July 1, 2023, 10 institutional buildings of professional pre-higher education and 4 institutional buildings of higher education have been completely destroyed. The number of damaged facilities is much higher (Education and war in Ukraine (2022)).

Among the main challenges posed by the war, which must be overcome, are: overcoming the increased anxiety of participants in the educational process; adjustment of the emotional and psychological state of participants in the educational process; lack of technical capabilities; departure of some students and teachers outside the country or region; lack of motivation and self-discipline among students; maintaining the effectiveness of the educational process (Suslova, 2022).

Stadny & Nikolaev, etc. paid attention to the circumstances of the educational process in the conditions of martial law. In their recommendations regarding the using blended learning in institutions of professional pre-higher and higher education, it is indicated that “for the purposes of blended learning, digital literacy is the ability to use online technologies and master new ones. This is the basis for competencies development, and without mastering the competencies it is difficult to go further” (Stadny & Nikolaev, 2020, p. 16).

Among the four competences the following are offered: integration of technologies; use of data; personalization; online interaction. Integration is related to the ability to create an effective learning environment for students. The use of data combines digital tools to monitor this performance. Personalization is a teacher's competence in creating an educational environment that takes into account students' own goals, their pace and/or way of learning. Online interaction is related to effective online interaction between teachers and students and students among themselves (Stadny & Nikolaev, 2020, p. 16).

Clifford Maxwell (2016) researched blended learning, that is closely related to online learning. All blended learning programs are marked by a combination of the Internet, and increasingly from face-to-face learning to online content and instruction. No doubt, the task of a teacher is to create an educational environment in order to support educational activities that correspond to the achievement of the desired learning outcomes (Biggs, 2003).

According to the national researcher O. Budiachenko (2022), the improvement of working conditions in the conditions of martial law in Ukraine can solve the problematic issues of distance education in higher educational institutions, taking into account their advantages and disadvantages.

Another national researcher, H. Zhila (2023), analyzed the development of higher education in Ukraine, theoretically substantiated the problems and prospects of higher education, that Ukrainian science can hope for in the future. Worthy of attention is the conclusion regarding forced migration and the part reduction of the staff, doctoral students and students due to being at the frontline (Zhila, 2023).

The **purpose** of the article is to determine and evaluate the components of professional competence development for scientific and pedagogical staff in the context of higher education institutions under martial law in Ukraine.

The **methodology** is based on a review of academic literature, research process. General scientific and pedagogical research methods were used: theoretical: analysis (comparative, systemic, analytical-synthetic, inductive, deductive) to justify the above-mentioned problem; synthesis (general scientific, interdisciplinary) to justify the unity of interrelated components of the model of professional competence development for scientific and pedagogical staff of higher education institutions under martial law, formulating a conclusion.

As well as classification, systematization, generalization methods were used with the aim of substantive generalizations of theoretical material, defining conceptual positions. In this aspect, the implementation of information and digital technologies is important, in particular, the implementation of scientific and methodological complexes, websites, educational and methodological manuals for disciplines and practices, methodological recommendations for mastering educational and practical issues, etc.

The full-scale war of the Russian Federation against Ukraine in 2022 led to huge material losses, in particular for the domestic education system (at the beginning of July 2022, 184 such institutions were damaged ["Education and war in Ukraine," 2022]). The main challenges posed by the war and which must be overcome among the students and educators were investigated by N. Suslova (2022).

According to the Ukraine's law concerning higher education, one of the priority tasks, due to the martial law, is digitalization, creation of conditions for the development of innovations, effective implementation of new knowledge and technologies (On higher education, 2023). The problem of professional competence development of scientific and pedagogical workers within higher-education institutions under martial law has been addressed by many researchers.

The necessity of introducing mixed, digital education due to the inhibition of the educational process in the conditions of martial law was noted by Zhila (2023) and

Stadny & Nikolaev (2020, p. 16). Clifford Maxwell researched blended learning, which is closely related to online learning. All blended learning programs incorporate the internet (2016).

Let us emphasize that Budiachenko (2022), Vlasenko (2017), and Maphalala & Adigun (2020) investigated peculiarities in the organization of distance learning in ensuring and implementing a high-quality educational process in a crisis situation as well as accessibility and independence in acquiring the required amount and quality of knowledge.

Among foreign scientists, John Biggs should be noted, who studied “constructive agreement” for the construction of learning (2003). Among foreign researchers on improving the educational process in nonstandard conditions, Benjamin Bloom also should be noted. The framework developed by Bloom and his colleagues consists of six main categories: knowledge, understanding, application, analysis, synthesis, and evaluation. Fink created a course design model for student teaching in which the first step should be to identify important situational factors (2023).

However, the development of the professional competence of scientific and pedagogical workers in higher-education environments under conditions of martial law was not given due attention and requires a specific study.

RESULTS

The Department of Theory and Methods of Professional Training at Hryhorii Skovoroda University in Pereyaslav has used the Moodle system, during the professional training of future specialists in labor protection, secondary education, and labor training and technologies, to conduct training on methods of technological education and computer graphics. Likewise, the National Academy of Sciences of Ukraine has used Moodle, for the professional training of future specialists in the transport industry. Scientific and methodical complexes have proven themselves in Moodle.

In Moodle, lectures for disciplines and work programs are available electronically for students with the help of a password. These may include a list of independent and creative works, methodological recommendations for mastering disciplines and practices-introductory, technological, or pedagogical-educational and methodological aids, multimedia presentations, tests for self-examination and verification of the material learned, etc.

The experience of working in the conditions of martial law showed that the development of professional competence in the teaching staff (scientific and pedagogical workers [SPW]) of higher educational institutions (HEI) during the war depends on the components shown in figure 1 in the form of a model of the development of professional competence of the SPW HEIs under the conditions of martial law.

The professional competence, in particular in labor protection, technological education, the transport industry and logistics, requires adaptation, the emergence of new components of a competence in connection with the war. These components should be aimed at ensuring: the safety of colleagues and students of higher education institutions; access to training online; organization of the educational process for students; additional consultations; psychological support, etc.

It is generally accepted that higher educational institutions should constantly improve:

pedagogical skill, creative thinking, technological and information literacy, systematic thinking, lifelong learning with the assignment and/or confirmation of relevant professional qualifications in formal, informal or informal education.

During the war with the Russian Federation, the quality of professional training for specialists for the priority branches of Ukraine's economy, in particular graduates from the transport industry and logistics, labor protection, technological education, depended on professional competence development.

Specialists graduating from higher education institutions must master their specialty perfectly, that includes, according to the educational standard of higher education, the development of different competences: integral, general and special (professional, subject). These competencies are developed on the background of studying an educational discipline (a subject), technologies, methods, psychological and physiological knowledge, the use of information and digital technologies in professional pedagogical activities, etc.

During the educational process higher education institutions in the conditions of the war should contribute to providing students with skills: health and life safety, labor protection at all levels of the educational environment, effective organization during distance and mixed learning forced by the war, patriotic citizens development, development in their creativity and competences regarding behavior in emergency situations. With this in mind, higher educational institutions should set up new goals and learning outcomes in curriculums, take into account the increase in wartime entrants with special educational needs, and based on it, use appropriate technologies, methods, and means of inclusive education.

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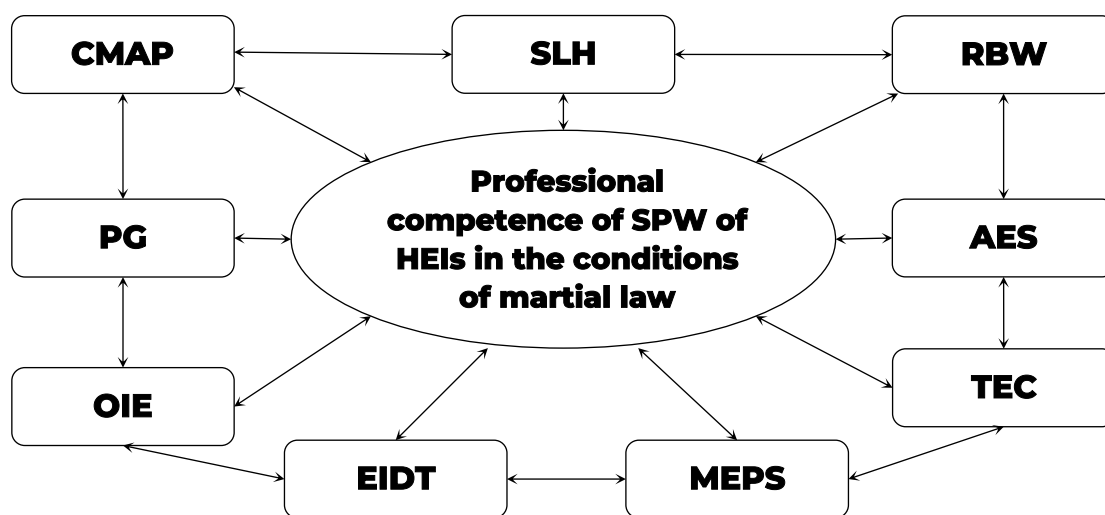
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Figure 1

Model of the professional competence development of teaching staff in higher educational institutions under martial law



On this model, SLH is the safety of life, health, labor protection. RBW are rules and behavior in emergency situations during war. AES is the ability to manage the educational process in crisis and to work with students. TEC is teaching in extraordinary conditions. MEPS is moral, emotional, and psychological support of colleagues and students in stressful situations. EIDT is effective use of information and digital technologies. OIE is the ability to organize inclusive education with students with special educational problems. PG are personal qualities (courage, resilience, patriotism, dedication to one’s students and studies, the ability to introduce classes in conditions of instability and to promote a strong spirit among students). CMAP is cooperation with the military armed forces of Ukraine, police, administration, humanitarian organizations, stakeholders, and fire organization, etc.

Let’s take a brief look at some of these components.

EIDT is the effective use of information and digital technologies. It is especially manifested during a state of rest, when students are forced to be outside the HEIs. Such technologies make it possible to access safe continuous learning, to ensure access through the use of appropriate platforms and tools. The author describes in detail the positive impact of these technologies on the educational process in works (Budiachenko, 2022; Vaintraub, 2021).

As the practice of work at Hryhorii Skovoroda University has shown, the advantage of distance learning in the conditions of martial law includes: effective management decisions regarding the organization of the educational process, optimization of the

process of information exchange, reducing the amount of work of the administration in the higher education system (Vaintraub, 2021).

In this regard, open online resources, internet communication services, smart-complexes of disciplines with the inclusion of digital video recording, the use of social network channels for communication, the introduction of virtual reality, the individual educational trajectory of a student have shown positive results and (Vaintraub, 2023). The author describes in detail the positive impact of these technologies on the educational process in works (Vaintraub, 2021; Vaintraub, 2023).

SLH is safety of life, health, and labor protection. The formation of SLH behavior in extraordinary situations under martial law is facilitated by the approaches described by the author to the formation of a culture of safety for professional activity (ecological, geophysical, medical-biological, algorithmic, strategic, informational, etc., external, synergistic, gender, block practice) (Vaintraub, 2023).

RBW – rules and behavior in emergency situations during the war—is considered by the author in the work (Vaintraub, 2023). Among the forms of education (face-to-face, distance) during the war, a safe-distance form of education was proven to be successful. During intramural education, air alarms, for example, slow down the educational process due to the need to stop classes and go to shelter.

DISCUSSION

In the developed model of professional competence of SPW HEIs in conditions of martial law, competences representing specific components of professional competence of teachers are defined. The result of this model makes it possible to provide higher quality and safer education in the difficult conditions of war.

In the opinion of the author, two of the main competencies that should be highlighted were safety of life, health, and labor protection alongside rules and behavior in emergency situations during war.

The next important competence is the ability to manage the educational process in a crisis and to work with students while teaching in emergency conditions. The specified component is related to overcoming the problems in Ukraine during the war, considered by Zhila (2023), and, of course, to the personal qualities of the teacher, namely: courage, patriotism, devotion to his/her students and studies, the ability to introduce classes in conditions of instability and to promote strong morale among students.

Next to this is the component of moral, emotional, and psychological support of colleagues and students in stressful situations. The author agrees with Suslova (2022) that adjusting to the emotional and psychological state of participants in the educational process is one of the most important issues of managing the educational process. It is also worth noting an important component regarding the effective use of information and digital technologies, which was studied by Budiachenko (2022), Fink (2023), Biggs (2003), and other researchers discussed above.

The ability in modern conditions, especially during the consequences of the aggressive military actions of the Russian Federation against Ukraine, to organize inclusive education for students with special educational needs or disabled as a result of hostilities is one of the priorities in our society and educational institutions. In this regard, we agree

with researchers Bloom (2010), Fink (2023), and others about the importance of improving the educational process in nonstandard conditions, predicting situational factors.

The experience of working in higher educational institutions shows that all competencies (that is, components of professional competence of scientific and pedagogical employees in higher educational institutions under martial law), depicted in the graph (figure 1), are effective if they operate in a system, interdependent with each other.

CONCLUSIONS

The relevance and necessity of developing teachers' professional competence, focused on specific requirements and challenges, in particular in the conditions of martial law, is considered.

The specific components of the professional competence of scientific and pedagogical workers in the conditions of martial law were determined. The model for the development of the professional competence of scientific and pedagogical workers in higher education institutions under the conditions of martial law was developed, and the specific components of the professional competence of teachers of the higher education institutions were determined in accordance with this model. The result of this model makes it possible to provide higher quality and safer education in the difficult conditions of war.

The proposed material will be of interest to teachers of institutions of higher education in the fields of transport and professional and technological education.

Prospects for further research in this direction are examples of the model, which foresees new components of professional training of scientific and pedagogical workers of higher education institutions under martial law.

CONFLICT OF INTERESTS

The author declares that there are no conflicts of interest regarding the publication of this paper.

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АНОТАЦІЯ / ABSTRACT [in Ukrainian]:

РОЗВИТОК ПРОФЕСІЙНОЇ КОМПЕТЕНТНОСТІ НАУКОВО-ПЕДАГОГІЧНИХ ПРАЦІВНИКІВ ЗАКЛАДІВ ВИЩОЇ ОСВІТИ В УМОВАХ ВОЄННОГО СТАНУ

Мета статті – розвиток професійної компетентності науково-педагогічних працівників закладів вищої освіти в умовах воєнного стану. Обґрунтовано актуальність і необхідність розвивати у педагогів професійну компетентність, орієнтовану на специфічні вимоги та виклики, зокрема в умовах воєнного стану.

Методологія. У процесі дослідження було використано загальнонаукові й педагогічні методи дослідження: теоретичні: аналіз, синтез, класифікація, систематизація, узагальнення.

Результати. Серед специфічних компонентів професійної компетентності педагогів в умовах воєнного стану вивчено: безпеку життя, здоров'я, охорону праці; правила і поведінку в надзвичайних ситуаціях під час війни; адаптацію навчальних програм; здатність до кризового управління освітнім процесом та виховної роботи зі студентами; викладання в надзвичайних умовах; моральну і емоційно-психологічну підтримку колег і студентів у стресових ситуаціях; ефективне використання інформаційно-цифровими технологіями; здатність організовувати інклюзивне навчання зі студентами з особливими освітніми проблемами; особистісні якості (мужність, стійкість, патріотизм, відданість своїм студентам та навчанню, вміння ввести заняття в умовах нестабільності й сприяти міцному духу серед студентів); співпраця з воєнними збройних сил України, поліцією, адміністрацією, гуманітарними організаціями, стейкхолдерами, пожежною організацією тощо.

Висновок. Розроблена модель розвитку професійної компетентності науково-педагогічних працівників закладів вищої освіти в умовах воєнного стану у вигляді рисунку. Розглянуто деякі компоненти цієї моделі. Результат впровадження розробленої моделі дозволить надати більш якісну і безпечну освіту у складних умовах, зокрема у галузях професійної та технологічної освіти.

Ключові слова: воєнний стан, заклад вищої освіти, науково-педагогічний працівник, професійна компетентність.

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