

UDC 37.013.83

DOI: 10.54055/PZLY2440

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EDUCATIONAL SPACE OF CONTINUOUS EDUCATION OF TEACHERS: A FACILITATING APPROACH

Abstract

The authors, relying on the practical work of domestic and foreign researchers, offer an effective system of organizing the educational space of continuous education of pedagogical workers on the basis of the facilitation approach. Taking into account the «digital revolution» and the possibilities of electronic (distance) learning, the transition of continuous education from «education 1.0» to «education 4.0» is proposed, which will contribute to the further development and self-development of the skills of pedagogical workers as facilitators, their social and reflective competencies.

The possibilities of using educational space based on information and communication technologies for the development of social and reflective competences of pedagogical workers in the institution of continuous education have been revealed. The specified educational space is characterized by: another goal of continuous education (awareness of the multifaceted nature of professional decisions); the democratic nature of the process of professional development, equality with other participants in this process (including organizers and authors of professional development courses); development of new social and reflexive competences, knowledge and skills among pedagogical workers in the process of co-creation; the clarity of the algorithms for the use of information and communication technologies in the system of continuous education, on the basis of which pedagogical workers develop social and reflective competences, a system of values,

professional attitudes, professional worldview, etc.

Keywords: educational space, facilitation, facilitation approach, development, information and communication technologies, «education 1.0», «education 4.0», e-learning, distance learning.

Introduction

The war of aggression of the Russian aggressors in Ukraine is another confirmation of the volatility, uncertainty, complexity and ambiguity of the modern world, or the VUKA world – an abbreviation from the English (I. Tsymbal, A. Zhovtun, O. Limanska, 2015, pp. 43–47).

Against the background of Russia's full-scale aggression against Ukraine, a strategically important direction for the development of the domestic system of continuous education is the organization and implementation of an educational space based on its remote form, which creates new opportunities for the professional and personal development of pedagogical workers. Also organizers of the educational space of continuing education and the pedagogical workers themselves should take into account the emergence of a new «digital» generation of children and youth with new personality qualities acquired by them, associated with the «digital revolution» and the information explosion. Before our eyes, a new «digital generation» of people appeared, who from an early age were in the conditions of the «digital revolution» and, as a result, have a different level of information knowledge, skills and abilities. They are ready to learn in a new way and, as «digital natives» (M. Prensky, 2001, p. 1–6), do not want outdated passive methods of «transferring» knowledge from «digital immigrants» – their teachers or professors. They want to independently build the process of their education (learning) in the way they are used to in everyday digital communication – in an interactive mode to acquire skills that contribute to the solution of their modern life problems (M. Prensky, 2001, p. 1–6; K. Robinson, 2011). Therefore, a revolutionary transition from «education 1.0» to «education 4.0» is necessary. A significant difference of «education 4.0» is large-scale informatization, in which the acquisition of knowledge goes beyond the boundaries of educational institutions to global digital audiences, and the gadget (English *gadget* – device) becomes the main source of innovations in education (V. Bazilevich, V. Osetskyi, I. Tatomur, 2019).

In less than fifteen years, the «digital revolution» has touched all spheres of human life. The world today is waiting for a new wave of innovation that can fundamentally change education around the world. The coming twentieth anniversary is expected to be the era of the most radical changes in education, probably since the moment when national education systems began to be created. The main source of these changes will not be the education system itself, but the fields related to

education, in particular, information technologies (O. Sokolyuk, 2017b, p. 49).

Means and technologies of information and communication networks (ICM), information and communication technologies (ICT), in combination with learning technologies based on the facilitation approach, contribute to the formation and development of a creative educational environment, fundamentally influencing the basic processes in the didactic system: the transfer and assimilation of knowledge, abilities and skills, formation/development of information, communication, professional, social, reflective and other competences, recording of educational achievements of education seekers, assessment of the quality of their education, creation of motivation and self-knowledge, etc.

The fundamentals of the study

The concept of creating a scientific and methodical system of organizing the educational space continuous education of pedagogical workers on the basis of a facilitative approach in conditions of military aggression includes methodological, theoretical and technological concepts.

The methodological concept reflects the mutual influence of various approaches, in particular facilitative, synergistic, systemic, activity, andragogic, acmeological, technological, personal, environmental, cultural, axiological, competence, deontological approaches to studying the problem of organizing educational space continuous education of teaching staff.

The theoretical concept defines a system of philosophical, psychological-pedagogical, professional-pedagogical, general cultural ideas, concepts, basic categories, basic concepts, definitions, evaluations, without which it is impossible to understand the essence of the problem under study, namely: philosophical positions of the theory of systems (G. Aleksandrov, V. Afanasyev, L. Bertalanfi, I. Blauberg, etc.); theories of scientific knowledge about the active role of the individual in knowledge and transformation of reality (M. Berdyaev, V. Bibler, H. Hegel, I. Kant, H. Skovoroda, etc.); philosophy of education (V. Andrushchenko, B. Gershunsky, I. Zyazyun, V. Kraevsky, V. Kremen, V. Lutai, L. Sokhan, etc.); theories of activity and development of the individual as a subject of activity (K. Abulkhanova-Slavskaya, B. Ananiev, I. Beh, L. Vygotskyi, V. Davydov, G. Kostyuk, O. Leontiev, K. Platonov, L. Rubinstein, etc.); theories of pedagogical (didactic) systems (Y. Babanskyi, V. Bepalko, T. Ilyina, N. Kuzmina, M. Makhmutov, P. Stefanenko, M. Fitsula, I. Kharlamov, A. Khutorskyi, P. Yutsyavichenye, etc.); theories of psychological and pedagogical design of educational systems (O. Bepalko, N. Bryukhanova, V. Dokuchayeva, O. Kobernyk, A. Ligotskyi, T. Podobedova, S. Sapozhnikov, S. Kharchenko, A. Tsimbalaru, O. Yaroshynska, etc.); theories of pedagogical mastery and pedagogical creativity (I. Zyazyun, A. Kuzminskyi,

L. Lukyanova, M. Leshchenko, V. Molyako, O. Otych, S. Sysoeva, N. Tarasevich, etc.) and features of subject relationships pedagogical process (I. Beh, O. Bodalov, V. Kan-Kalik, O. Koval, A. Mudryk, etc.).

The technological concept involves the development and implementation of a theoretically grounded scientific-methodical system of organizing the educational space continuous education of pedagogical workers on the basis of a facilitative approach in conditions of military aggression.

Relevance of the topic

The relevance of solving the problem of the formation and development of the educational environment of the institution of continuous education on the basis of a facilitative approach using information and communication technologies in the conditions of military aggression is due to the need to update the specified environment in order to bring it into line with the modern level of technological development of human society, the state and development trends society, taking into account forecasts regarding the further development of the education system (V. Bykov, 2005, 2012; O. Sokolyuk, 2012, 2016, 2017a, 2017b).

Statement of the problem Statement of the problem

The introduction of an educational space based on computer-oriented learning in institutions of continuous education should be aimed at the development of facilitation skills, improvement of social and reflective competences of a pedagogical worker, mobile, competitive, able to work at the level of world educational standards, ready for constant professional self-improvement throughout life (I. Bobrytska, 2012).

Analysis of recent studies and publications

The analysis of recent research and publications shows that the educational space based on the application of information and communication technologies in combination with learning technologies based on the principles of a facilitating approach can be based on the methodological works of U. Beck, R. Burt, M. Grannoverter, M. Castells, J. Coleman. Pedagogical approaches to informatization and computerization of the educational process (V. Bykov, B. Gershunskyi, M. Zhaldak, Yu. Mashbyts, I. Pidlasiy, etc.) are studied. problems of organization and use of the informational educational environment (R. Gurevich, Yu. Zhuk, etc.); theoretical and methodological foundations of digital humanistic pedagogy (P. Anderson, V. Bykov, O. Bjork, J. Brie, S. Warnock, S. Davidson, D. Jakaki, T. Kliment, R. Lanham, M. Leshchenko, R. Whitson, B. Hirsch, etc.); the concept of the evolution of education from «education 1.0» to «education 4.0» (D. Keats,

J. Lengel, J. Moravitz, J. Schmidt, etc.); promising directions of using web technologies in education (V. Kukharenko, N. Morse, J. Siemens, R. Willa, K. Franks, etc.).

Therefore, the problem of improving the qualifications of pedagogical workers using computerization and informatization of the educational process is popular among domestic researchers (O. Anishchenko, 2015; V. Andrushchenko, 2012; S. Arkhipova, 2020; V. Bazilevich, 2019; V. Bykov, 2005, 2012; N. Bilyk, 2020; V. Bobrytska, 2012; O. Buynytska, 2012; N. Dementievska, 2012; A. Zhovtun, 2015; Yu. Zhuk, 2012; L. Lebedyk, 2018, 2020a, 2020b, 2020c; O. Leshchynskyi, 2020; O. Limanska, 2015; V. Osetskyi, 2019; O. Sokolyuk, 2012, 2016, 2017a, 2017b; V. Pylypenko, 2020; O. Pinchuk, 2012; I. Tatomur, 2019; I. Tsymbal, 2015; S. Shostya, 2020, etc.). However, in these works, the researchers do not systematize the advantages of using information and communication technologies in continuous education, especially regarding the development of social and reflective competencies of pedagogical workers.

Also, in recent years, the number of publications on the problem of pedagogical facilitation has increased significantly. In particular, the following were investigated: facilitation strategies, tools and techniques for overcoming difficult situations (I. Bens, 2005); systems of group facilitation and group support (P. Bostrom, R. Anson, V. Clawson, 1993, p. 146–168); facilitation of groups of subsequent generations (B. Broome, D. Keever, 1989, p. 107–127); group or organization management practices that promote change (A. Church, J. Waclawski, W. Burke, 1996, p. 22–66); process projects for a qualified facilitator (A. Davidson, 2005, p. 107–114); the role of a facilitator in total quality management teams (W. Eakin, 1993, p. 73–77); principles of quality facilitation in adult learning (M. Galbraith, 1992, p. 10–20); the main facilitation styles for school effectiveness (G. Hall, 1984, p. 286–304); operational aspects of the profession of a facilitator (J. Jenkins, 2005, p. 473–494); a facilitative approach in the activity of a teacher as a modern direction of reforming higher education and as a condition for the organization of reverse training of future teachers (H. Voloshko, 2016, pp. 96–106; 2021, pp. 61–82); the essence and structure of the teacher's pedagogical facilitation (O. Galitsan, 2019a); the facilitation competence of a teacher of a higher school as a subject of pedagogical activity (O. Galitsan, T. Koycheva, Z. Kurlyand, 2019b, pp. 84–89); determinants of training future teachers for pedagogical facilitation in professional activity (O. Galitsan, Z. Kurlyand, 2020, pp. 170–173); the concept of facilitation, its types and some aspects of the manifestation of the main function (M. Kazanzhi, 2012, pp. 21–37); peculiarities of the diagnosis of facilitability (M. Kazanzhi, 2015, pp. 41–47); pedagogical facilitation as a meaningful phenomenon (O. Fisun, 2010a, pp. 133–139); formation of the teacher's facilitating position in the system of scientific and

methodical work of a comprehensive educational institution (O. Fisun, 2010b, pp. 20–27); theoretical aspects of teacher personality training for pedagogical facilitation in a higher education institution (S. Berezka, 2019); the essence, structure, place in the system of pedagogical facilitation of the facilitation skills of a modern teacher (G. Trukhan, 2019, pp. 148–158); ways of forming the ability to facilitative influences in future practical psychologists (O. Kondrashikhina, 2004); facilitative activity of the teacher in the context of the subject-subject approach to pedagogical activity (O. Levchenko, 2007, pp. 23–26); components of the development of the ability of future social pedagogues for facilitative interaction by means of social-pedagogical training (S. Borysyuk, 2011, pp. 180–182); the system of training future teachers for facilitating interaction with students of general secondary education institutions (I. Prokopenko, 2019, pp. 101–112); pedagogical conditions for the formation of facilitation competence of future teachers of humanitarian specialties in professional training (O. Foksha, 2018, pp. 203–207; 2019); pedagogical technologies for the development of facilitation of future humanitarian professionals (O. Romanyshyn, G. Byhar, 2018); facilitator as an important role position of a modern university teacher (N. Volkova, A. Stepanova, 2018, pp. 228–234); new roles of the teacher (and as a facilitator) in the context of modern Ukrainian school reforms (V. Husak, 2019); the teacher's pedagogical facilitation as a vitagenic pedagogical technology (Z. Kurlyand, O. Foksha, Yu. Popovskyi, 2018, pp. 168–176); pedagogical facilitation in the context of the teacher's professional competence (K. Shevchenko, 2014, pp. 258–263); facilitation as an innovative technology for managing pedagogical conflicts in higher education institutions (N. Koshechko, 2018, pp. 24–29); skills of a teacher-facilitator for the formation of professional competencies of dentists in the conditions of computer-oriented education (V. Strelnikov, N. Ilenko, I. Lytovchenko, E. Nikolishina, 2021, pp. 45–51); formation of the facilitation competence of the future teacher of vocational training (I. Uchitel, 2015, pp. 73–75); pedagogical facilitation as a mechanism for developing the leadership potential of students in the conditions of a technical university (T. Gura, 2014, pp. 32–44) and others.

At the same time, the problem of organizing the educational space of continuous education of pedagogical workers on the basis of a facilitative approach in the conditions of military aggression was not the subject of special pedagogical research, which determined the topic of the publication.

Purpose of the article

The purpose of the article is to generalize the practical work of researchers from the USA, Western Europe and Ukraine regarding the effective use of the skills of a facilitator in continuing education by a pedagogical worker for the development

of his social and reflexive competences in the conditions of war with the use of information and communication technologies.

The objectives of the research are: first, to determine the possibilities of using information and communication technologies in the educational process of the institution of continuing education; secondly, revealing the essence of the facilitating approach to the organization of the educational space of continuous education of pedagogical workers; thirdly, substantiation of the expediency of formation and development in the institution of continuous education of the system of effective skills of the pedagogical worker as a facilitator.

Methodology and the research methods

To solve the specified tasks and achieve the goal, a complex of complementary theoretical research methods was used, in particular: a systematic analysis of philosophical, psychological, sociological and pedagogical scientific literature dedicated to the study of the use of information and communication technologies in the educational process of an institution of continuing education, and educational, methodological and instructive methodical documentation for defining the conceptual and categorical apparatus; methods of system analysis used to consider the genesis of the facilitating approach in the organization of the educational space of continuous education of pedagogical workers; methods of causal and historical analysis, applied at the stage of determining the characteristics of continuous education of pedagogical workers, the adequate state of modern society; methods of comparative analysis – to determine the essence of the scientific-methodical system of organizing the educational space of continuous education of pedagogical workers on the basis of the facilitating approach in the conditions of military aggression and its differences from the existing education system; methods of direct structural analysis – for consideration of the structure and features of the organization of the educational space of continuous education of pedagogical workers on the basis of the facilitation approach as a system; methods of reverse or elementary-theoretical analysis – to determine the connections between the principles of organizing the educational space of continuous education of pedagogical workers on the basis of the facilitation approach in the conditions of military aggression and general didactic principles; theoretical modeling and generalization of the research results in order to reveal the scientific aspects of the specified problem.

Presentation of the main research material

Starting with the presentation of the essence and results of the first practical task of the research – determining the possibilities of using information and communication technologies in the educational process of an institution of

continuous education in war conditions, we note that information and communication technologies are considered by us as a set of methods, production processes, software and technical tools, which are integrated with the purpose of collecting, storing, processing, distributing, demonstrating and using information in the interests of its users (V. Strelnikov, N. Ilenko, I. Lytovchenko, E. Nikolishina, 2021, p. 47).

Among the organizational forms of continuous education, the current trend is online education, which in its essence is open education (O. Anishchenko, 2015, pp. 155–160). Online education is easier to measure and improve than offline education. Online education is one of the forms of distance education, training courses based on electronic learning technologies with mass interactive participation and open access to the Internet. Online education in the institution of continuing education, as massive open online courses, complements traditional materials of professional development courses in text, audio and video formats, algorithmized tasks for professional activity, control and self-examination, uses interactive forums of course participants, which help to create and maintain communities of pedagogical workers and teachers of continuing education institutions. The experience of the advanced countries of the world shows that in the future, professional development should take place in two ways: 1) on massive open online courses (massive open online courses – MOOCs), which are free, provide training according to the schedule and communication with teachers of the best universities (including part of foreign, mostly American, universities); 2) on open educational resources (open educational resources – OER), which involve the use of materials for self-education from leading institutions of higher education (O. Anishchenko, 2015, pp. 155–160). This will ensure access to continuous education of various categories of citizens through open educational resources in order to meet their cultural and educational needs.

This becomes possible in a society where there has been a transition from the «print» stage of its development to the «digital» one, accordingly, education has already undergone a transformation from verbal to printed, and is now moving from printed to digital. Modern researchers point to the essential feature of this transition associated with the emergence of the Internet as its very short historical period – from the end of the 1980s to the mid-2010s (O. Sokolyuk, 2017a, pp. 114–121).

Factors influencing the development of continuous education were: a) personal computers; b) Internet network; c) technologies for creating and maintaining information resources on the Internet; d) development of information and communication networks; e) Web 2.0 and Web 3.0 Internet technologies, which, in fact, are becoming basic, basic tools and technologies for educational environments (V. Bykov, 2012, p. 15). Therefore, in institutions of continuing education, the possibilities of information and communication technologies are realized with the help of technical means of education, which are equipment (specific carriers of

educational materials) and apparatus, which are used in the educational process in order to increase its effectiveness (O. Buynytska, 2012).

The means of information and communication technologies that determine the future development of continuous education, according to the conclusions of the international consortium New Media Consortium, include: a) mobile technologies that make it possible to use smartphones, communicators, laptops, netbooks in the educational process due to their ability to share access to resources and fast Internet connection; b) software, digital resources of high quality, free centralized access to them, which facilitates the free implementation of new methods and forms of learning, oriented to the active independent and productive activity of consumers of educational services, which can be implemented through the creation of educational portals); c) touch interfaces as a technology based on natural human gestures that allow easy control of objects on the screen, which contributes to the development of new models of interaction of people (teachers, teachers, students, students) with information and communication tools; d) data visualization (Educause Horizon Report, 2019). As for the visualization of information, the usual visualization in the form of drawings, diagrams, models, videos is now enhanced by augmented reality, which offers a combination of real and virtual objects, creating a completely new informational perception of reality (V. Strelnikov, N. Ilenko, I. Litovchenko, E. Nikolishina, 2021, p. 47).

Modern researchers have defined a typology of network information and communication technologies (ICT), which, supporting the informational educational space, provide new opportunities for the implementation of traditional technologies of continuous education (V. Bykov, 2005, 2012; O. Sokolyuk, 2016, 2017a, 2017b) (see Table 1).

Education models that use these technologies have been named «education 1.0», «education 2.0», «education 3.0», «education 4.0», respectively (Derek Keats, 2007; James G. Lengel, 2013; J. Moravec, 2019, etc.).

The development of education from «education 1.0» to «education 2.0», and the genesis of «education 3.0» is considered a potentially turning point, when serious changes in education take place, a deeper understanding of the educational process as a result of the development of information technologies, social networks (Derek Keats, 2007 etc.).

«Education 1.0» is compared by the authors to the first generation of the Internet and is considered, mainly, as a one-way process of information transfer from teachers to students who are consumers of information resources. «Education 2.0» is associated with the emergence, development and spread of «web 2.0» technologies, since the use of new generation web services in the educational process suggested new principles of its organization, rearmed teachers technologically (O. Sokolyuk,

Typology of web technologies for the continuing education system
(O. Sokolyuk, 2017b, p. 50)

Internet technologies	Information and communication networks (ICM)	Appointment
web 0.0	local	support of communications in local information and communication networks (without access to the Internet)
web 1.0	open	supporting communications in open information and communication networks, providing users with access to available content
web 2.0	open	support of communications in open information and communication networks, provision of access to existing content, provision of access to content editing, provision of the possibility of formation and distribution of own content, support of joint activities in the creation and distribution of collective content, provision of functioning of electronic social communities, support of communications in open information – communication networks, providing access to existing content, providing access to content editing, providing the possibility of creating and distributing own content, supporting joint activities in the creation and distribution of collective content, ensuring the functioning of electronic social communities
web 3.0	open	are based on the Web 2.0 technological platform, information search, including video and digital image search, based on metadata and metabase analysis, creation of high-quality content and services in open information and communication networks
web 4.0	open	further development of Web 3.0 information technologies with the addition of elements of artificial intelligence

Under «education 3.0», the consumer of educational services should become more independent and organized, because access to tools and technologies will help develop an individual educational trajectory. The «mobility of technologies» becomes an important component, the «group factor» is realized much more easily, which is important for the organization of the educational space of the continuous education of pedagogical workers on the basis of the facilitation approach in the conditions of military aggression. «Education 4.0» is based on information technology «web 4.0» and is training to order in real time in any place, at any time and on any topic (O. Sokolyuk, 2017 b, p. 51). The characteristics of «education 1.0» – «education 4.0» for the continuing education system are summarized in Table 2.

Characteristics of «education 1.0» – «education 4.0» for the system of continuous education

(O. Sokolyuk, 2017b, p. 51)

	Education 1.0	Education 2.0	Education 3.0	Education 4.0
Content of education	Dictated	Socially constructed	Socially constructed and updated depending on the context	It is created in the process of individual/group activity, through innovative activity
Knowledge transfer is carried out	From the teacher to the student of the courses	From the teacher to the student of courses and between students	Knowledge is constructed by course participants in the process of personally meaningful activities	Mutual exchange, cumulative effect, positive reflection of innovative activity increases. The 24/7 and 1:1 model is everywhere: in education, life, work
Continuous education is carried out	In the building of the institution of continuing education	In the building or on the network via a PC	With the advent of mobile devices – everywhere	Everywhere. In a global network that replaces the classroom
Equipment, software	Bought for a lot of money, but not used	Open and available at a low price	Available at low cost and used to create new knowledge	Updated daily, as all software is personalized
Mobile devices	Not used	Carefully accepted	Actively used, motivating to study in a personal educational space	Actively used, constantly changing due to technical evolution and innovation

Undoubtedly, the development of information and communication technologies leads to a change in the educational environment of continuous education. There is a transition from the traditional information closed educational environment to the open information educational environment of continuous education. The researchers conducted a comparative analysis of various models of educational environments according to the main features that characterize these models (Y. Zhuk, O. Sokolyuk, N. Dementievska, O. Pinchuk, 2012), and identified the typology of educational environments built on the basis of local and open types information and communication networks (V. Bykov, 2005, pp. 5–15), which are summarized in Table 3.

According to the fourth model of the educational environment of continuous education, it is possible to form an informational educational environment as a set of conditions implemented on the basis of information and communication technologies

and information and communication networks. This model should be used to organize the continuous education of pedagogical workers on the basis of a facilitative approach in the conditions of military aggression, because it ensures:

Table 3.

Types of models of educational environments of continuous education

(O. Sokolyuk, 2017b, p. 52)

Models of educational environments of continuous education using:	Information and communication networks:	Software:
1) a local computer network for presenting educational information	local	communication support in local information and communication networks (without access to the Internet)
2) Internet resources for the presentation of training information by the teacher of advanced training courses	open	support of communications in open information and communication networks, access to available content
3) resources of the Internet network by course listeners directly at professional development courses in the process of independent cognitive activity	open	support of communications in open information and communication networks, access to available content
4) a student of the courses specially created by the teacher for advanced training courses of the educational Internet site/blog and Internet resources in the process of independent cognitive activity	open	support for communications in open information and communication networks, access to existing content, access to content editing, the possibility of creating and distributing own content, support for joint activities in the creation and distribution of collective content, the functioning of electronic social communities

a) the implementation of educational activities of the institution of continuous education in the conditions of expanding the information field; b) group communication, informational interaction of subjects of the educational process; c) increasing the capacity of the resource base for facilitating interaction based on pedagogically appropriate use of electronic educational resources; d) educational requests of modern consumers of educational services with their focus on active, practically oriented, pragmatic learning, which gives a personally significant result (O. Sokolyuk, 2017b, pp. 52–53).

The characteristic features of the fourth model of the educational environment of continuous education on the basis of facilitating interaction are: a) integration of information and communication technologies; b) use of local and open network resources; c) active use in the educational process of modern means of web technologies, in particular interactive methods and forms of learning, social network

services. In this way, techniques and methods from the environment of social interactions, mobile technologies, and virtual reality will be transferred to the educational environment of continuous education. This will create in the educational environment of continuous education new conditions for the development of social skills and competences of the teacher-facilitator among students of advanced training courses based on information resources and network communications of educational facilitating interactions (O. Sokolyuk, 2017b, p. 53).

At the Department of Philosophy and Economics of Education, Internet resources, computer equipment, television, video and multimedia equipment, general purpose search systems, text editors, cloud-based means of supporting joint scientific and research activities, etc.. In addition, teaching staff use their own smartphones, laptops, netbooks, tablets, etc. during advanced training courses.

We note the intensive involvement of multimedia tools in advanced training courses: during lectures, practical classes, independent work of teaching staff, individual work of teachers with students of advanced training courses. The wide application of information and communication technologies in the educational process of the department of philosophy and economics of education has a positive effect on the formation of informational, social reflective, and professional competences among pedagogical workers. So, on the website of the Department of Philosophy and Economics of Education of the M. V. Ostrohradskyi Poltava Academy of Continuous Education, the program and educational and thematic study plans of the invariant part 1.1 «Practical philosophy of the competence approach in education» of module 1 «Development of general competences of pedagogical workers», other educational and methodological materials that help pedagogical workers in studying the philosophy of education and organizing independent work. Information and communication technologies provide many powerful opportunities for teaching staff to take advanced training courses online, engage in self-education at a convenient time and in more favorable conditions, freely exchange useful and important materials, regardless of location, receive full-fledged consultations from the department's teachers in real time and in a short time. This is facilitated by placing the necessary materials and information on remote servers without being tied to stationary computers. A modern pedagogical worker must perfectly master information and communication technologies and apply them for his own professional development in his professional activity.

Thus, the use of information and communication technologies in the educational process of the Department of Philosophy and Economics of Education of the M. V. Ostrohradskyi Poltava Academy of Continuous Education remains a promising and relevant direction for the development of facilitation skills, improvement of social and reflexive competences of pedagogical workers in the institution of

continuous education.

However, the means of information and communication technologies of education by themselves do not provide a solution to the problem of the development of facilitation skills, improvement of social and reflective competences of pedagogical workers in the institution of continuous education, therefore it is appropriate to turn to the American, Western European and Ukrainian experience of the application of the facilitation approach and information and communication technologies, which are technologies of post-classical didactics. The experience of improving the qualifications of pedagogical workers at the Department of Philosophy and Economics of Education of the M. V. Ostrohradskyi Poltava Academy of Continuous Education shows that these technologies are able to solve the task of developing the social and reflexive competences of pedagogical workers, mobilizing their internal resources and organizing professional activities more effectively than traditional advanced training courses.

Therefore, according to *the second* task of the research, we will characterize the essence of the facilitating approach to the organization of the educational space of continuous education of pedagogical workers.

Regarding the concept of «facilitator», it was introduced into scientific circulation by Carl Rogers (English *facilitator*, from the Latin *facilis* – easy, convenient), by which is meant a person who ensures successful group communication (C. Rogers, 1980). The main task of the facilitator is to help in realizing the goals of the group's joint activities and to support positive group dynamics in achieving these goals by means of discussion. The facilitating role involves a neutral position in relation to the proposed positions produced by the members of the discussion group. The teacher-facilitator creates a comfortable atmosphere in the group, facilitates communication and works according to the principles of respect and tolerance. The facilitator's activity is based on a personal approach, which allows identifying the resource capabilities of education seekers, searching for internal motivation, demonstrating trust, activating thinking, etc. (V. Husak, 2019).

In previous studies (V. Strelnikov, 2021, pp. 45–51; 2021a, pp. 312–313; 2021b, pp. 533–538), we found out that professional facilitation is: 1) organization of the process of group work aimed at achieving the group's set goals; 2) a process that increases the effectiveness of the group's work, promotes the involvement and interest of participants, the disclosure and maximum inclusion of their potential; 3) the space in which insights, breakthrough solutions arise, collective intelligence is actualized; 4) the art of involving the understanding, thinking and energy of all participants in collective creativity; 5) sets of practices that facilitate the performance of tasks by the group, optimally use the individual abilities of each of its participants

and the time allocated for this; 6) not only by the sum of the efforts of group members, but by synergy in its best manifestations; 7) as a way to help the group think as best as possible; 8) peaceful revolution or collective evolution.

The facilitation approach differs from the traditional discussion in a group of trainees of advanced training courses in a fundamental way. Let's compare the following six positions. In particular, traditional work with a group is characterized by: 1) usurpation of most of the time by active pedagogical workers who think faster; 2) perceiving questions as challenges («did I say or do wrong?»); 3) interrupting, interfering with the conversation; 4) avoidance of different points of view, which are considered as conflicts; 5) lack of attention to the opinions of others, everyone's preoccupation with the formulation of their own; 6) the solution to the problem is when one of the trainees of advanced training courses formulates the correct answer.

According to the facilitating approach, these same six signs have a different, and even the opposite, meaning: 1) all pedagogical workers participate in the search for a solution; 2) questions are used to encourage group members, to clarify the essence of the proposed proposal; 3) every student of advanced training courses can freely express his opinion; 4) the coexistence of opposing points of view, the complexity of the discussed issue requires the opinion of each student of advanced training courses; 5) listening to everyone's opinion as important for solving the discussed problem; 6) the solution to the problem comes when all students of advanced training courses understand the best reasoning for their further actions and agree with it.

A pedagogical worker as a facilitator, an expert in methods of group interaction, must be able to: a) organize the educational process, involve all participants in it, structure the work of the group to achieve a common goal; b) create an educational environment, including a virtual one based on «education 4.0», where the process of group interaction is effective, where new ideas, knowledge, insights are generated through the creative interaction of participants (collective wisdom); c) monitor the performance of the task and the relationships of the participants, their positive feelings and worldview.

Facilitative competence is understood as the integrative personal formation of a teacher, which reflects the level of his ability and readiness to stimulate the development of the personal potential of students as subjects of cognitive activity through a special style of their interaction (H. Voloshko, 2021, pp. 61–82).

For successful facilitation, it is necessary to master: a) methods of managing group processes; b) methods of working with group dynamics; c) form an understanding of the specifics of working with different groups (by gender, age, profession, social status, etc.); d) acquire the skills to take into account the peculiarities of working with «difficult» group members; e) acquire skills of mediation, structuring, visualization, etc. (H. Voloshko, 2021, pp. 61–82).

The facilitator must: a) perfectly master communication technologies; b) be sensitive to changes and moods of the group in order to quickly respond to them; c) to be knowledgeable, qualified and flexible in order to easily select facilitation methods depending on the situation, problem and the group itself (O. Galitsan, 2019a; 2019b; 2020); d) possess non-violent communication according to the method of M. Rosenberg (M. Rosenberg, 2020).

The facilitator should develop the following abilities and qualities: a) directing and structuring the group's discussion during problem solving; b) orientation in different types of dialogues, conversations and meetings; c) the ability to leave the comfort zone and help participants in this; d) stress resistance; e) quick response to changing circumstances; e) motivation of participants for personal changes and self-development (S. Berezka, 2019).

Researchers consider the following skills to be important: a) the ability to reach consensus for group decision-making; b) empathic listening, careful observation of participants' behavior; c) establishment of effective communication in the group; d) correction of participants' actions and compliance with the rules of interaction; e) encouragement of active positive behavior; f) organization of safe feedback between participants of the educational process; g) demonstration of restraint and patience; g) advocacy of a neutral position during the evaluation of educational products. Thanks to such skills and personal growth, the facilitator implements a new teaching style (H. Voloshko, 2021, pp. 61–82).

Ways of interaction of pedagogues-facilitators with students of education assume: a) an individual and differentiated approach; b) paying attention to the feelings and experiences of education seekers; c) discussion of current issues, cooperation with education seekers during the planning of educational work; d) sense of humor; e) receiving feedback from students; e) granting education seekers the right to choose the form of education; g) joint evaluation of their knowledge with the students of education. The student is responsible for the learning results, the teacher-facilitator is responsible for his own professionalism (H. Voloshko, 2021, pp. 61–82).

Taking into account the above findings of scientists, moving on to the *third* task of the research, we substantiate the expediency of formation and development of a system of effective skills of a pedagogical worker as a facilitator in a continuing education institution. Here we will use the experience of conducting a practical class «Development of social skills and competencies of a teacher-facilitator» in an online format for students of advanced training courses at the Department of Philosophy and Economics of Education of the M. V. Ostrohradskyi Poltava Academy of Continuous Education.

We selected groups of skills that could be polished to the level of skills of a pedagogical worker as a facilitator, important in the conditions of computer-oriented

education. Among them are the following groups of skills: 1) the beginning and attitudes towards group discussion; 2) its course; 3) involvement of emotions; 4) completion of the group discussion.

The first group of skills of a teacher-facilitator, which relate to the beginning and attitude towards a group discussion, include: a) the skill of showing virtual patience, respect for the different communication styles of the participants in the discussion: authoritarian, businesslike, superior, conformist, indifferent, alienated, formally tolerant, aggressive; «joint creativity», «friendly affection», «flirting», «bullying», «distance», «mentoring»; b) the skill of questioning – to clarify the position of the participant in the discussion, clarify the essence of his solution to the problem, help him formulate his own idea; c) the skill of reflecting what the panelist said – to speed up the pace of slow discussions, improve the work of newly formed microgroups, and create trust between the panelists.

The second group of skills of a teacher-facilitator, which relate to the course of a group discussion, include: a) the skill of paraphrasing what the participant of the discussion said: repeating his thoughts in other words; with this, the teacher-facilitator makes it clear that he heard the participant of the discussion and thereby confirms his right to his own opinion; b) the skill of recording ideas – first they are written down, and then they are discussed and analyzed; c) the skill of stacking (from the English stacking – «stacking») – establishing the sequence of the statements of the participants in the discussion, the order, if there are several who wish to speak; d) the skill of tracking (from the English tracking – «tracking, support») – tracking several lines of discussion in case of branching ideas for solving the problem; later, their discussion is organized in groups or pairs; e) the skill of balancing the direction of the discussion, if it is set by the first participants and goes in the same «channel», alternative positions should be presented, the discussion should be expanded («Are there other views on this issue?»); f) the skill of engaging avid «silent» people in the conversation, for which you need to be attentive to non-verbal manifestations that testify to the readiness of the participant in the discussion to join the discussion process, to understand the emergence of a desire to express himself, to constantly emphasize the importance of everyone's opinion.

The third group of skills of a teacher-facilitator, which relate to engaging the emotions of the participants in the discussion, are: a) the skill of encouraging the participants of the discussion, which gives them the opportunity to express themselves, involves them in the dialogue («Who else wants to share their ideas? Do you have any examples?»); b) the skill of recognizing the feelings of the participants in the discussion, «joining» their inner world («You have the right to show your feelings...», «I'm sorry that you are probably upset now», «It's probably quite offensive (or scary, unfortunately, humiliating, shameful), when they say...»); c) the

skill of accepting another point of view, because any of them has the right to exist; to recognize different points of view without switching to one of them; d) the skill of empathy (understanding the relationships, feelings, mental states of others in the form of empathy) – mentally being in the other person's place («I feel how difficult it is for you to talk about this topic...»); e) the skill of deliberate silence, holding a pause (stopping if necessary discussion – «Let's pause so that we understand the consequences of what is happening...»); f) the skill of linking (composing), i.e. the ability to complete all the «incomplete» parts of the discussed project and link them together in an understandable completed format («How does your proposal relate to the project we are currently discussing?»); g) the skill of attentive listening, even in the presence of one's own, even opposing, point of view; it is necessary to indicate certain positions, based on the specific roles of the participants in the discussion (group leader, manager, active participant, observer).

The fourth group of skills of the teacher-facilitator, which relate to the completion of the group discussion, are: a) the skill of finding points of intersection to solve the project, which is necessary in the conditions of polarization of the discussion, the search for something common, unifying, although not obvious; b) the skill of summarizing the discussion, because in group work it is important to summarize it, make a summary, paraphrasing in your own words what happened, what was reached during the discussion; c) the skill of structuring the expressed ideas into extremely important, necessary and partially relevant ones and establishing the order of their further discussion and implementation («The identified issues relate to different topics, let's consider them separately in this sequence...», «The proposed solutions relate to different levels of generalization, each should pay attention to...», «How can you describe the structure of the solution to the discussed problem?»); d) the skill of formulating a conclusion («What words can most accurately describe the conclusion from the discussion?», «Let's formulate the conclusion in this way...», «Maybe there are other formulations?», «What are the advantages of the specified formulation?»).

This is not a complete list of skills that should be developed to automaticity and become the skills of a pedagogical worker as a facilitator, which are used in the conditions of computer-oriented «education 4.0» in the system of continuous education.

Summarizing the personal qualities of a facilitator, S. Berezka defines the following groups of characteristics:

1. Intellectual characteristics (awareness, flexibility in reactions to changes in group dynamics, variability in the use of work methods depending on the new situation).

2. Emotional characteristics (empathy, stress resistance, willpower, high level of

emotional intelligence, assertiveness).

3. Motivational characteristics (motives and personal needs are related to real help in the realization of the student).

4. Understanding oneself and others (objectivity, sensitivity, ability to reflect, openness, etc.).

5. Characteristics of communication (kindness in communication, ability to cooperate, sense of tact, pedagogical ethics, ability to motivate).

6. Business characteristics (the ability to organize, manage, accompany, plan) (S. Berezka, 2019).

Today there are different approaches to the formation of the facilitator's personality. Among the methodological concepts that underlie the development of psychotechnologies for the development of teacher facilitation, the following are defined:

1) the direction of humanistic psychology, which makes it possible to perceive the student's personality as a unique value and to see the unlimited potential for the realization of each personality;

2) the theory of social learning, which considers the importance of applying stereotypes of social behavior, imitation and assimilation of new models of behavior in the process of positive reinforcement;

3) neurolinguistic programming, which enriches the system of techniques for effective interaction in the field of interpersonal communication (S. Berezka, 2019; H. Voloshko, 2021, pp. 61–82).

Effective techniques are: dialogue lectures, diagnostic workshops, reflective seminars, personally oriented, communicative, intellectual and sensitive trainings. Particular preference is given to trainings for facilitators, in which methods of changing one's own behavior, techniques of forming new personal qualities are worked out, the mechanism of creating new tactics of professional behavior is activated, which gives an opportunity to form the facilitator's own practical skills (H. Voloshko, 2021, pp. 61–82).

In Ukraine, within the framework of non-formal education, there are associations of facilitators who provide educational services and carry out projects with the aim of training facilitation of educators who work with groups. Yes, there are such organizations: 1) «Community of education facilitators» (<https://www.facebook.com/groups/318920959240121/>); 2) «Facilitators of all countries» (<https://www.facebook.com/groups/975343552524281/about>); 3) «Other education»; 4) Center for Innovative Education «Pro.Svit»; 5) CEASC consulting agency, which offers thorough facilitation schools, online events, master classes (H. Voloshko, 2021, pp. 61–82).

For the purpose of developing humanistic attitudes and values, forming the

position of a teacher-facilitator, educational measures of the system of advanced training and additional professional education can be a significant help.

Among the online services, it is worth noting the Electronic scientific and methodical guide and the section «Humanistic orientation – the conceptual basis for the development of pedagogical competence of teachers». https://nmcbook.com.ua/Arhiw1/pedonetoo/modyl_1/modyll_1.htm), which can also be used for educational events and self-education (H. Voloshko, 2021, pp. 61–82). However, the most effective way to learn facilitation is by being in a facilitation environment and practicing facilitation techniques on your own.

Implementing a facilitative approach in the process of improving the qualifications of pedagogical workers at the Department of Philosophy and Economics of Education of the M. V. Ostrohradskyi Poltava Academy of Continuous Education, we use facilitation methods during offline and online interaction. The «World Cafe» method, which has wide possibilities of use in almost any educational topic, gives positive results (H. Voloshko, 2016). Invariable elements of facilitation are the stages of motivation at the beginning of lectures and seminars, as well as methods of reflection, self-evaluation and mutual evaluation. Forced distance learning, caused first by the pandemic and then by military aggression, led to the involvement of new digital tools for asynchronous and synchronous interaction of participants in the process of professional development: the MOODLE distance learning platform, electronic textbooks, audio and video materials, mobile technologies (Viber), cloud technologies (GOOGLE disk), online boards, educational task design sites. The most effective programs that can be used to facilitate lectures and seminars are ZOOM with the possibility of uniting teaching staff into creative groups in session halls for the purpose of solving educational tasks, as well as the Mentimetr platform – as a designer of educational tasks and a tool for collection of opinions and expectations of pedagogical workers of the whole group. With the help of this program, the lectures explore the values of modern education common to the entire group of teaching staff, which are visualized in a word cloud, determine the attitude of teaching staff to the possibilities of using methods of encouragement and punishment with statistics of the choices made. At the end of each lesson, a reflection on the achievement of their goal is carried out with the help of a chat, a white board of the ZOOM program, on which pedagogical workers put marks. Pedagogical workers also express their opinion, evaluating and reflecting on the activities carried out.

With such interaction, instructions and recommendations for the preparation of creative educational tasks are provided in the form of videos on the YouTube channel created by the teacher for pedagogical workers, and also promptly sent to the group of participants in Viber. In this way, the interactive technology «Six Hats» is used

during the analysis and resolution of pedagogical situations. Using the Miro online board completely replaces the facilitation board, to which virtual stickers are attached, and group products are created in the form of intelligence cards in asynchronous or synchronous interaction.

When choosing methods of pedagogical facilitation in various types of remote work, the following questions are used:

1. What goal should be achieved?
2. How will participants be involved?
3. What will be the sequence of task performance by a group of pedagogical workers?
4. How to effectively organize communication and feedback?
5. What resources will be involved?
6. What digital tools are optimal in achieving the educational goal?
7. How to create a safe and comfortable environment for participants?

Creative groups of various nature are used for interactive training: a) permanent groups for preparing projects; b) groups of variable composition for work at lectures and seminars. Of course, online learning has its limitations, it often causes discomfort in communication, and at the same time, such informatization has innovative potential, develops the professional skills of pedagogical workers, provides opportunities to implement a facilitation approach and a developmental environment for participants (H. Voloshko, 2021, p. 61–82).

Conclusion

Unfortunately, the mass application of the specified components of the development of social and reflective competences of pedagogical workers in modern conditions of military aggression is quite problematic due to material, psychological and organizational factors. However, in the process of improving the qualifications of pedagogical workers at the Department of Philosophy and Economics of Education of the M. V. Ostrohradskyi Poltava Academy of Continuous Education use of the facilitating approach in information and communication technologies of «education 4.0» proved their perspective and relevance for the development of the defined competencies of pedagogical workers.

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