Viae Educationis
Studies of Education and Didactics
2023, Vol. 2, No. 4

• ISSN 2956-2856
DOI: https://doi.org/10.15804/ve.2023.04.03
www.czasopisma.marszalek.com.pl/10-15804/ve

Olha Voloshyna*
Ukraine

The Problem of Professional Training of Future Primary School Teachers to Work in Distance Learning

Summary
The article deals with the theoretical foundations of professional training of future primary school teachers in higher education institutions. The necessity of digitalisation of the education system through the introduction of innovative digital technologies and the organisation of the educational process in higher education institutions is established.
Today, the classical type of education is experiencing an almost instantaneous crisis around the world. Distance learning is gaining popularity due to its ability to attract more people, improve on-site learning and offer fast and affordable education at any time.

Keywords: distance learning, primary school teacher, future teacher training, information technology, informatics competence, higher education institution

1. Introduction

The educational process in GSEI includes compulsory classroom learning and independent work of students; one of the components of didactic support of the educational process of training future specialists in higher pedagogical education is the use of distance learning elements. However, the use of distance learning elements for the theoretical training of skilled workers in higher education institutions is carried out at the discretion of the teaching staff of higher education institutions, in an unsystematic manner, in different ways and means, depending on the teaching and methodological support, technological and intellectual capacity of the institution and the teachers' knowledge of web technologies (Andrus, 2011, p. 283–294).

The Law of Ukraine «On Education» (2017) states that distance learning is an individualised process of acquiring knowledge, skills and methods of human cognitive activity that takes place in a specialised environment that operates on the basis of modern psychological, pedagogical, information and communication technologies, and indirectly by participants in the educational process remotely. It is indicated that it takes place through interaction. The purpose of distance education is to provide educational services to people using modern information and communication technologies. Distance education is based on the principle of student-led learning and should focus on the individual readiness of students, especially when teaching primary school children. Distance education requires access to the Internet, technical support (computers, tablets, smartphones, etc.) and teacher's readiness to organise distance learning, which should be formed in higher education institutions. Preparing future primary school teachers for distance learning is a scientifically based activity in the educational process of a higher education institution aimed at developing students' technological literacy, the need for self-improvement and the acquisition of

* Olha Voloshyna, Candidate of Pedagogical Sciences, Associate Professor at the Department of Foreign Languages, Donetsk State University of Internal Affairs, ORCID ID: https://orcid.org/0000-0001-8226-8681, e-mail: mikka071986@gmail.com.

a set of specific technical and pedagogical knowledge and skills that guarantee the high efficiency of the teacher's pedagogical activity in a distance format means a system.

2. Analysis of the research conducted

We consider the process of students' knowledge acquisition as a set of the following stages: content recognition; identification and recognition of symbols and signs of objects, processes and phenomena; comprehension – establishing essential external and internal connections; memorisation, consolidation and active reproduction of the identified symbols, signs and connections; active reproduction; application of the acquired knowledge to solve specific practical problems application of the acquired knowledge to solve a problem or gain knowledge about a new class of objects. This logical chain of knowledge acquisition should be taken into account when students are introduced to the content of distance learning and its organisation in primary school. The content of learning should clearly define the body of knowledge to be acquired in the process of studying a particular subject area. Based on a survey of primary school teachers, study of pedagogical and methodological literature, research in pedagogical publications, the knowledge that future primary school teachers should acquire includes: the essence, purpose and objectives of distance education, the regulatory framework of distance education, the main forms of online communication, web resources typical for distance education of primary school children, modes of distance learning, interaction between participants in the educational process in distance education, peculiarities of communication with children (Budnyk, 2020, p. 140–145).

We do not claim to have an exhaustive knowledge base for distance learning. A clear understanding of the body of knowledge helps to develop appropriate ways for students to learn it. The knowledge we have identified can be divided into two groups: technical and pedagogical. For example, future teachers need to be familiar with web resources such as Moodle, Classroom, Zoom, ClassDojo and Google Form from Google; synchronous and asynchronous modes of distance learning; email, forums, chat and blogs as forms of communication with students and parents, they should be familiar with distance learning tools. They should also have effective methods of communication with students and parents, as well as methods of distance learning for different categories of children. When organizing the process of professional training of future teachers for distance learning, methodological recommendations should be based on the idea of integrity and indivisibility of pedagogical activity. Therefore, the successful acquisition of knowledge in distance education by students should be ensured through the introduction of a contextual approach to the training of future primary school teachers. In recent years, it should be clearly understood that the interpretation of the concept of «context» is not limited to psycholinguistics: as T. Dubovytska notes: "At the present stage of development of science, the concept of «context» is increasingly going beyond the traditional linguistic understanding and is actually becoming a general scientific, psychological and pedagogical concept. A category, relying on which opens up new perspectives of scientific knowledge"; V. Zhelanova adds that the contextual approach is based on a new psychological and pedagogical interpretation of the concept of «context» as a meaning-forming category. In this regard, the process of professional training acquires a personal meaning. In the psychological and pedagogical literature, there are different types of contexts: social, cultural, existential and the context of vocational education. The concept of «context» is used in the didactic sense, as it implies the choice of strategies for organising students' preparation for distance education and, in the process, the inclusion of this fragment in the general logic of the content and form of studying pedagogical disciplines. The analysis of the curricula of bachelor's and master's programmes of higher education institutions in the speciality 013 «Primary Education» shows that students can acquire technical knowledge of distance education in the process of studying such a discipline as «Modern Information Technologies». The formation of a range of pedagogical knowledge can take place in the process of studying such disciplines as Pedagogy, Technologies of the Educational Process in Primary School (at the level of Bachelor of Higher Education), Practical Problems of Primary Education and Theories and Technologies of Working with Different Categories of Children (at the level of Master of Higher Education). This requires a link between

the logic of the course of study and the content of individual disciplines.

However, since such an acquaintance with the content of individual pedagogical disciplines cannot guarantee the systematic formation of knowledge about distance education among primary school students, an important role is played by special courses that can be included in the curricula of higher education institutions in the cycle of the discipline chosen by the student (Koval, 2021, p. 158–161). The aim of the course is to form a special technical and pedagogical complex of knowledge and skills, to increase students' interest in distance learning and the need for self-improvement, as well as to improve the level of pedagogical education of future primary school teachers. Communication between students and teachers during the course should be of high quality and carried out at a high technical level. Such communication can be carried out through e-learning courses designed to form students' knowledge and to manage their learning. e-learning courses should contain theoretical pedagogical material that can be presented in a form adapted to electronic textbooks and video materials. The controlling role of an e-learning course is to test students' knowledge and skills acquired in the course of studying the theoretical part. Controlling functions can be assigned to individual topics or integrated into the content of the theoretical material, as well as the e-learning course material as a whole (or part of it). This motivates students to study the theoretical material in more depth.

3. Principles of distance learning

The analysis of scientific research on various aspects of distance education has determined that classical didactic principles, which are well-structured, theoretically grounded and, most importantly, proven by the educational practice of traditional learning, are not sufficient for a distance education system (Sultanova, L., Tsiuniak, O., Milto, L., Zheludenko, M., Lyktei, L., Petrenko, L. and Uchitel, A., 2021, p. 350–357).

In addition to general didactic principles, distance education systems have specific didactic principles. Currently, there is a tendency to partially modernise the list of didactic principles of the traditional education system, change the emphasis and expand the body of didactic principles to take into account the specific features of distance education.

Therefore, it is necessary to supplement and develop traditional didactic principles in accordance with the specifics of distance education by analytically understanding the laws and principles of didactics in terms of their functioning in the new information and educational environment. In this regard, the following questions arise. What principles are inherent in distance education and what principles can be considered the basic principles of distance education in the process of training future primary school teachers?

Let's consider the main didactic principles typical for distance education. It should be noted that this form of education is characterised by classical didactic principles, which have been modified, clarified and expanded in some way due to changes in the modern information environment (Bykov, 2016, p. 115––130).

In an attempt to correlate traditional didactic principles with the peculiarities of distance learning, O. Rybalko transformed the traditional principle of focusing learning on solving the problems of education, upbringing and development into the principle of creative nature of cognitive activity. In her opinion, interactive technologies allow to introduce the spirit of competition between students within the framework of the principle of creativity, which promotes creative development.

The traditional didactic principle of matching the basic nature of learning to the cognitive needs of the student is continued in the principle of free choice of information obtained through specific activities. The latter is demonstrated by the possibility of using different ways of constructing knowledge obtained from different sources in distance learning. One example is the use of 'web quests' as additional learning materials. It is important for future primary school teachers to be aware of various fields of education and to identify dependencies between different processes in the world around them, which can be achieved using this principle (Vyshnevskyj V., Garkushenko O., Knyazyev S., Lypnyczkyj D., Chekina V., 2020, p. 15––19).

It is logical to extend the last principle with the principle of freedom of choice of information they receive, getting information from different sources. The essence of this principle lies in the way of obtaining and transforming information, not by directly

receiving it, but through participation in discussions, teleconferences, working with search programs, comparative analysis of information on the World Wide Web, etc. Like the previous one, this principle plays an important role in primary school teacher training, as it expands the educational space of students, teaches them to be sociable, develops the ability to communicate information and conduct a competent dialogue.

The next equally important principle is the principle of personal educational activity of the student, according to which the student independently chooses the goals, form and pace of work in various educational fields. However, in parallel with this principle, management and planning of the student's work is also envisaged.

The visibility of distance education is ensured by the principles of educational virtualisation and systematic structuring of information using symbols, videos, e-learning programmes, interactive methods, etc. This principle can be considered one of the most desirable for future primary school teachers to master, as the ability to properly visualise learning material is one of the most important tasks of a teacher, especially for primary school children (Mukoviz, 2018, p. 113).

The principle of students creating personal educational products within the module they are studying is an effective means of motivation and educational self-realisation. In addition, the student's creative work can become the subject of educational communication.

Adhering to this principle, future education professionals can follow the example of educational technologies implemented in distance courses, create similar educational technologies for further cooperation with students, learn new programmes and tools for visualisation and presentation of information.

The development and use of information technologies has contributed to the emergence of such principles of distance education as the principle of identification, which is the need to manage learning independence, as distance education offers more opportunities for intervention in the learning process than face-to-face or scheduled courses. Student identification is part of general security measures. In addition to face-to-face contact, the management of independence in exams, essays and other administrative activities can be achieved through various technological means. For example, video conferencing can be used to identify candidates.

Finally, the principle of interactivity should be noted. Bi-directionality implies interaction, influence and impact. The term «interactivity» is firmly established in the field of computer-based learning. Moreover, it has established itself as a term that describes one of the fundamental principles of computer-based learning. This concept allows us to immediately answer the question of what a computer offers in comparison to the capabilities of traditional learning methods such as lectures, books and educational films.

The principle of interactivity has become the heuristic basis of educational technologies, as it relates to a fundamental characteristic of the learning process. It is now proposed to use interactivity as a criterion for the quality of educational programmes (Nychkalo, 2001, p. 18).

The effectiveness of interactivity in distance learning depends on the use of telematics, which is carried out through computer conferencing systems. This system distributes learning materials and provides synchronous interaction through e-mail and computer conferencing. This ensures contact between teacher and student and allows for discussions between groups of students in different parts of the country.

The principle of visibility is important in the system of distance education and is transformed into the principle of multimedia in the context of the functioning of the information and distance educational environment. According to L. Havrylova, multimedia tools have higher visibility than traditional teaching materials and are able to distinguish between concrete and abstract, rational and irrational, theoretical and facilitate the integration of practical knowledge and practical activities.

The above principles and approaches define the basic principles of the system of professional competence development of future primary school teachers using distance technologies. One of the most important principles of learning is the principle of students' consciousness and activity in the learning process. This principle reflects the psychological laws of knowledge acquisition and the general laws of cognitive processes. A positive attitude to learning, interest in the learning material and positive emotional expe-

riences from learning activities contribute to the activation of students' cognitive activity. It also depends on the connection of learning with life, the integration of intellectual and speech activities of students, the use of acquired knowledge, skills and abilities in practice. The systematic repetition of acquired knowledge, diversification and differentiation of practical classes, teaching to master complex material using accessible methods have a positive impact on the implementation of this principle. This principle can be implemented with the help of information transfer tools, such as screencasts, interactive posters and other presentation programmes.

Distance learning is characterised by the principles of classical teaching methods, such as naturalness, scientificity, accessibility, visibility, consciousness and activity, systematicity, consistency and sequence, and the connection of theory with practice. However, distance education also has specific features. One of these features is that distance education is based primarily on the principles of informatisation of education and the spread of telecommunication technologies (Kuxarenko, V., Bondarenko, V., 2020, p. 45–52).

Analysing the experience of domestic and foreign researchers, we can distinguish the formation of the following pedagogical principles of distance education in the context of distance learning

- The principle of creative nature of cognitive activity;
- The principle of free choice of information received within a particular type of activity;
- The principle of personal learning activity of the student;
- The principle of virtualisation of learning and systematic structuring of information;
- The principle of creating a personal educational product by a student;
- The principle of creating a personal educational product by a student;
- The principle of identification;
- Principle of interactivity;
- Principle of interactivity
- The principle of multimedia.

It should be noted that the above list of principles is open. In the process of modernisation and informatisation of education, new specific pedagogical principles of distance education are emerging.

4. Conclusions

The digitalisation of higher education should start with the creation of basic information services used in the educational process, electronic libraries that allow higher education students and teachers to access scientific literature from any device, regardless of place and time, the creation of new digital communities, each stage of the educational process of innovation, etc. In view of the above, a modern primary school teacher should be able to navigate the information space, receive information – the main resource of digital education, manipulate information according to their own needs and professional requirements (text documents, tables, drawings, diagrams, creating presentations), Internet technologies, local networks, databases, as well as draw conclusions about the need to create their own electronic products (electronic lesson notes, electronic textbooks, curricula and demonstration.

References

Andrus, O. (2011). Suchasni aspekty profesiinoi pidhotovky studentiv u tekhnichnykh universytetakh. [Modern aspects of professional training of students in technical universities]. Problemy pidhotovky suchasnoho vchytelia, 4(2), 283–294 [in Ukrainian].

Budnyk, O. (2020) Pidgotovka vchytelya do rozvytku cyfrovoyi gramotnosti uchniv Novoyi ukrayinskoyi shkoly [Professional training of teachers for the development of digital literacy of students of the New Ukrainian School]. Osvitni obriyi, 1(50), 140–145. [in Ukrainian].

Bykov, V., Leshhenko M. (2016) Cyfrova gumanistychna pedagogika vidkrytoyi osvity [Digital humanistic pedagogy of open education]. Teoriya i praktyka upravlinnya socialnymy systemamy: filosofiya, psyxologiya, pedagogika, sociologiya, 4, 115–130. [in Ukrainian].

Dy'stancijne navchannya: vyklyky, rezultaty ta perspektyvy. Poradnyk. Z dosvidu roboty osvityan mista Kyyeva (2020) [Distance learning: challenges, results and prospects. Adviser. From the experience of educators of the city of Kyiv]. Kyyiv. [in Ukrainian].

Kontseptsiia «Nova ukrainska shkola». (2016). [The concept of the «New Ukrainian School»] URL: https://mon.gov.ua/storage/app/media/zagalna%20serednya/nova-ukrainska-shkola-compressed.pdf [in Ukrainian].

Kontseptsiia rozvytku tsyfrovoi ekonomiky ta suspilstva Ukrainy na 2018–2020 roky. [The concept of development of the digital economy and society of Ukraine for 2018–2020]. URL:https://zakon.rada.gov.ua/laws/show/67-2018-%D1%80#Text [in Ukrainian].

Koval, L.V. (2021) Yevropejskyj vektor strategichnyx zmin u profesijnij pidgotovci majbutnix uchy`teliv pochatkovoyi shkoly [European vector of strategic changes in the training of future primary school teachers]. Pedagogika formuvannya tvorchoyi osobystosti u vyshhij i zagalnoosvitnij shkolax, 184, 158–161. [in Ukrainian].

Kuxarenko, V., Bondarenko, V. (2020) Ekstrene dystancijne navchannya v Ukrayini [Emergency distance learning in Ukraine]. Xarkiv. [in Ukrainian].

Kryshtanovych, S., Inozemtseva, O., Voloshyna, O., Ostapiovska, I., Dubrova, O. (2023). Modeling the effective digitalization of the education management system in the context of sustainable development. International Journal of Sustainable Development and Planning, Vol. 18, No. 5, pp. 1507–1514. https://doi.org/10.18280/ijsdp.180521.

Mukoviz, O. (2018) Osnovy dystancijnogo navchannya u pochatkovij osviti [Fundamentals of distance learning in primary education]. Uman. 128. [in Ukrainian].

Nychkalo, N. (2001). Neperervna profesiina osvita yak filosofska ta pedahohichna katehoriia. [Continuing professional education as a philosophical and pedagogical category]. Neperervna profesiina osvita: teoriia i praktyka. 1. 9–22. [in Ukrainian].

Organizaciya dystancijnogo navchannya v shkoli: metod. rekom. (2020) [Organization of distance learning at school]. [Electronic resource]. Available at: https://mon.gov.ua/storage/app/media/zagalna%20serednya/metodichni%20recomendazii/2020/metodichni%20recomendazii-dustanciyna%20osvita-2020.pdf. [in Ukrainian].

Sultanova, L., Tsiuniak, O., Milto, L., Zheludenko, M., Lyktei, L., Petrenko, L. and Uchitel, A. (2021). The potential of Google Classroom web service for lecturers of higher educational establishments under pandemic conditions. Proceedings of the 8th Workshop on Cloud Technologies in Education (CTE 2020) at CEUR Workshop Proceedings, 2879. 346–365. URL: http://ceur-ws.org/Vol-2879/paper19.pdf. [in Ukrainian].

Tsyfrova adzhenda Ukrainy – 2020 («Tsyfrovyi poriadok dennyi – 2020»). (2016). Kontseptualni zasady. Pershocherhovi sfery, initsiatyvy, proekty «tsyfrovizatsii» Ukrainy o 2020 r. Conceptual ambush. Pershocherhovi sfery, initsiatyvy, proekty «tsyfrovizatsii» Ukrainy do 2020 r.]. Hruden. 90. URL: https://www.rada.gov.ua/uploads/documents/40009.pdf. [in Ukrainian].

Vyshnevskyj V., Garkushenko O., Knyazyev S., Lypnyczkyj D., Chekina V. (2020) Cyfrovizaciya ekonomiky Ukrayiny: transformacijnyj potencial [Digitization of Ukraine's economy: transformation potential]. Kyiv. [in Ukrainian].