Modern didactic system of open education in ukraine: problems, solutions

Sistema didáctico moderno de educación abierta en ucrania: problemas, soluciones

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Abstract.

The emergence of an open education system is associated with the growing interest of the population in obtaining an educational product of a higher level and dissatisfaction with the implementation of educational needs through traditional education. The article aims to provide a comprehensive analysis

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[1] Professor Khayruddinov contributed significantly to this research but unfortunately passed away before its publication. His co-authors wish to recognize and honor his valuable contribution to the work and express their gratitude for his efforts in advancing knowledge in this field.

of the current state of open education in Ukraine, including an evaluation of its strengths and weaknesses, and to propose a methodology for addressing its problems. The article presents the definition of open education, the essence, purpose, subject. The main initial methodological ideas of open education include the idea of activity, consistency, and reflection. These ideas require an understanding of education as an integral part of social activity, consideration of the individual within the system of life, and the use of various forms of informational influence for the formation of a creative personality. Additionally, the article emphasizes the integration of the structural elements of didactics to generate a holistic pedagogical process. Using it in practice, it will not allow the teacher to drop one of its elements, replacing it with another. Such a construct can be the key to the success of open education in the present and in the future.

Key words: open education, didactic system, individualization of education, information technology, international educational space.

Resumen

El surgimiento de un sistema educativo abierto está asociado al creciente interés de la población por obtener un producto educativo de mayor nivel y la insatisfacción con la realización de las necesidades educativas a través de la educación tradicional. El artículo presenta la definición de educación abierta, la esencia, finalidad, materia. Se señalan como principales ideas metodológicas iniciales de la educación abierta las siguientes: la idea de actividad, que exige una comprensión de la educación en el contexto de la inclusión integral del individuo en la actividad social: práctica social, ciencia, educación, etc.; la idea de consistencia, que considera la inclusión integral del individuo en el sistema de vida; la idea de reflexión, que consiste en el hecho de que se proporciona la posibilidad de utilizar todas las formas de influencia informativa en una persona, sobre la base de la cual se lleva a cabo la formación de una personalidad creativa. La organización del aprendizaje abierto contribuye en gran medida a la individualización de la formación y brinda a los estudiantes la oportunidad de un ritmo individual de consideración material, una elección independiente de un camino de aprendizaje, contribuye a un aumento en la independencia y objetividad del control por parte del maestro; proporciona la libertad de elegir el momento y el lugar de la formación, así como animar a los investigadores educativos a buscar y desarrollar tecnologías de enseñanza innovadoras. El aprendizaje abierto refleja la unidad de los componentes tecnológicos, pedagógicos y de contenido de un proceso pedagógico holístico. Los elementos estructurales individuales (objetivo, contenido, método (tecnología), forma y resultado) de la didáctica no se consideran de forma aislada, por separado, sino que se integran entre sí, se generan unos a otros. Será imposible en la práctica real utilizar sus elementos individuales de forma aislada, como suele ser el caso de la didáctica clásica. En este sentido, la teoría es armoniosa, lógica y completa. Usándolo en la práctica, no permitirá que el maestro deje caer uno de sus elementos, reemplazándolo con otro. Tal construcción puede ser la clave para el éxito de la educación abierta en el presente y en el futuro.

Palabras clave: educación abierta, sistema didáctico, individualización de la educación, tecnologías de la información, espacio educativo internacional.

1. Introduction

Open education today is being developed in many countries of the world as a new form of education in the emerging information society. In Ukraine, the development of the open education

system is at an early stage. The use of open learning technologies is carried out mainly as part of traditional education.

In the context of the spread of the coronavirus, distance learning and the use of certain computer technologies in teaching children and adults are widely used as a forced measure in the activities of educational institutions of the country. The society's attitude towards innovations is ambiguous: from acceptance as a panacea for all socio-economic and psychological-pedagogical problems, to blocking innovations on the part of teachers and parents who are not prepared for new functions and responsibilities in the field of education.

For these reasons, there is a need to create a "new didactics" or, more precisely, new didactics that meet both the realities of the educational situation in modern Ukraine and the specifics of the emerging information society.

In recent years, didactic scientists have been actively working on solving these issues, going far beyond their research field and interacting with colleagues in other human sciences. This intense research activity stretched out over a decade and a half and gave rise to a number of models of modern didactics. These "images of didactics" are represented by several research teams led by famous scientists (Bondar, 2005; Savchenko, 1997; Osmolovskaya, 2014)

The didactics that embarked on this search was called new or digital didactics, since the current generation is already immersed in the virtual world. Traditional didactics was based on one concept, while modern didactics was based on many pedagogical concepts.

As V. Okon (1990) emphasizes, learning is a multilateral process that includes various elements of its various directions. This versatility of teaching allows us to use for each degree of the educational system, for each specific learning situation, in a peculiar way, the possibilities and individual psychological characteristics of both students and the teacher himself, the advantages of one direction or another.

The traditional teaching system was based on the linear principle of presenting the content of the educational program and constructing curricula, the use of appropriate educational technologies, which is implemented through classroom and lecture-seminar forms of organization. It assumes that pupils and students study the subjects of the educational program strictly sequentially in the established amount in specific terms in terms of a group or audience.

2. Methodology

The information society often demands a non-linear way of teaching. It is for this that special teaching methods have been developed. Methods that form a person's ability to perceive the right information in the right place and at the right time. As elements of a non-linear learning process, the organization of the learning process can be considered, which includes: classless course preparation, involving block-modular construction of courses, content and time modules; a mobile (dynamic) schedule that allows for the rational use of study time and a differentiated approach to the distribution of the training load of the teaching staff. The teacher guides the educational and cognitive activity of students, while simultaneously stimulating their independent work,

activity and creative search, which become system-forming components of the educational and cognitive activity of students.

One of the most important features of the modern educational situation is the expansion of the capabilities of the educational information environment, in which the education sector will function now and in future, which leads the educational process out of the traditional classroom system and is accompanied by the emergence of new forms of its organization. It is noted that the formation of the professional competence of a tourism specialist takes place in search of a new paradigm in the socio-cultural environment (Pletsan, 2018), and the role of creativity for the preservation of historical and cultural heritage remains unchanged (Pletsan et al., 2021).

The emergence of an open education system is associated with the growing interest of the population in obtaining an educational product of a higher level and dissatisfaction with the implementation of educational needs through traditional education.

Modern trends in global development are associated with the formation of a democratic, open society. In the field of education, the ideas of openness are embodied in the open education system, which is created under the influence of current changes taking place in society, and due to its high dynamism, it fully corresponds to modern social realities.

In recent years, with the development of global processes in the field of education, individual publications began to appear in periodicals, which reflect the problems of forming a single international educational space (Scott, 2000; Osterwarld Konrad, 2001; Afanasyev, 1981; Grebnev, 2004; Smirnov, 2004, etc.).

In the pedagogical science of countries, there is still no single definition of open education. Open refers to distance education. The most commonly used concepts are "e-learning", "e-education", "open education", "web-training".

Today open education is understood in different ways, such as an open social system that adequately responds to changes in the educational needs of the population; as a social institution regulating free access to scientific information and mastering a complex of professional knowledge throughout a person's life; as an education that provides a variable choice of forms and methods of teaching, etc.

In our opinion, in the future, some integral, synthetic form can be ideally considered, towards which, during modernization and development, all currently known forms of education, including modern preschool education, will strive evolutionarily. This form is conceived as some kind of ideal that absorbs all the best of the existing forms in the present and which may appear in the future. This is our understanding of an open education (OE).

The pedagogical space of the open education system reflects the following principles. In the open education system, in the preparation and implementation of training, in which each student has the opportunity to choose the goals, content, method, place and time of training, and training organizations have the opportunity to go different ways in the provision of educational services that meet the requirements of the labor market and social needs.

The essence of open education lies in its general availability to all categories and segments of the population, regardless of age, race, social origin and financial well-being with progressive digital technologies.

The open education system is a set of didactic, technical, informational and organizational approaches that implement the principles of open education.

The goal of open education is to prepare learners for full and effective participation in public and professional fields in the information society; the formation of an integral (self-conscious) personality in the process of its socialization.

The subject of open education can be defined as the interaction and connections of the following components of the system: a specific social personality — an educational institution — social practice — science — communication. (Khayruddinov, 2019: 20-25).

With this approach, it becomes clear that open education is a form and method of organization (or self-organization) when an educational institution, being distributed and open, creates conditions for the integral inclusion of a person in social practice, education, science and communication.

In open education, the child is busy constructing and managing open situations. Fundamentally, by an "open situation" we mean an independent effective child's action, the algorithm of which is not predetermined, the child himself determines his position in it, chooses the strategy of behavior and the product of the activity that will be presented as an educational result (Babych, 2013).

Open education leads to the following understanding of openness such as, the educational system is "open" to the external environment, i.e. exchanges various resources with it (information, human, material). The openness of the training content (information resource) is manifested in the following aspects: a) the design of educational programs, taking into account the most modern ideas about the subject of training; b) creation of didactic and methodological conditions for the introduction of content into the educational process on the part of students; c) prompt exit (if necessary) outside the scope of a meaningful standard, curriculum, meaningful lesson plan (for example, Internet search and use of the information obtained directly during the lesson).

The educational system can also exchange material and technical resources with the environment (use of equipment, buildings, premises of external organizations; field, etc. classes). The main flow of resource exchange is directed from the external environment to the educational system; the reverse flow in significant volumes is possible only in the systems of higher and postgraduate education, when students really affect the external environment already in the learning process. This side of "openness" can be called social and pedagogical interaction.

The main principles are: consistency, accessibility, interactivity, variability, flexibility, independence, communication, feedback, non-competitive admission to an educational institution, open planning, freedom of choice of time, pace, place of study, free development of individuality, etc.

The basis of open education should be formed by its philosophy, which makes it possible to have a holistic vision of educational systems, their advantages and disadvantages; clarifying the main holistic guidelines; forming an integrative idea of education as a social institution, the kind of spiritual production and reproduction, the sphere of culture and one of the most important spheres of socialization of the individual.

The following can be taken as the main initial methodological ideas of open education:

- the idea of an activity, according to which education cannot be reduced to any particular type of educational process, for example, to the assimilation of materials, the expansion of knowledge, skills, etc. On the contrary, this idea requires an understanding of education in the context of the integral inclusion of the individual in social activity: social practice, science, education, etc.;
- the idea of consistency, according to which the educational model cannot consider in isolation the educational process, production activities and communication of people, but, on the contrary, should consider the integral inclusion of the individual in the system of life;
- the idea of reflection, consisting in the fact that it is possible to use all forms of informational influence on a person, on the basis of which a creative personality is formed (Khayruddinov, 2019).

The creation of an international open education system is carried out by imparting the properties of openness to national educational systems and their integration into a single international educational space. The formation of an open education system implies, in fact, the formation of an open educational space that combines the resources of the education system with the latest information technologies, introducing open learning technologies into practice. The main thing for these technologies is to provide training regardless of the presence of students in an educational institution.

Openness makes the education system able not only to perceive innovative tendencies from the outside, from a changed society, but also to meet this external influence both by internal needs and the ability to change the existing, but outdated forms of teaching academic disciplines and managing the educational process. These internal needs play a decisive role in the development and consolidation of innovative trends in education.

The basis of the educational process in the open education system is the purposeful, controlled, intensive independent work of the student, who can study in a convenient place, according to an individual schedule, with the availability of special teaching aids, while maintaining, however, the possibility of personal contact with the teacher.

Openness initiates the design of new educational spaces and environments based on network interaction, the combination of virtual reality technologies with the capabilities of the Internet. The organization of open learning greatly contributes to the individualization of education and provides an opportunity for students to have an individual pace of material consideration, an independent choice of a learning path, contributes to an increase in the independence and objectivity of teacher control; provides the freedom to choose the time and place of training, as

well as encourages educational researchers to search and develop innovative teaching technologies.

Open learning reflects the unity of the technological, pedagogical and content components of a holistic pedagogical process. Individual structural elements (goal, content, method (technology), form and result) of didactics are not considered in isolation, separately from each other, but, are built into each other, generate each other. It will be impossible in real practice to use its individual elements in isolation, as is usually the case with classical didactics. In this regard, the theory is harmonious, logical and complete. Using it in practice, it (theory) will not allow the teacher to "throw away" one of its elements, replacing it with another. Such a construct can be the key to the success of open education in the present and in the future.

3. Methodology

The methodology of research involve a literature review of the concept of open education, its purpose, and subject. This helps establish a theoretical framework for the study. The study analyze the integration of the goal, content, method (technology), form, and result elements of didactics into each other to generate a harmonious, logical, and complete theory. The literature review was conducted by searching academic databases, such as Google Scholar, Web of Science, and Scopus, for relevant peer-reviewed articles and books related to open education and the didactic system in Ukraine. The search was conducted using a combination of keywords, such as "open education," "distance learning," "e-learning," "didactic system," "teaching principles," "learning outcomes," and "Ukraine." The inclusion and exclusion criteria were also set to ensure that only relevant studies were included in the review.

After the initial search, the identified studies were screened based on their titles, abstracts, and full texts to select the relevant ones. The selected studies were then analyzed and synthesized to identify the key themes and issues related to the didactic system of open education in Ukraine. The literature review process also involved critically evaluating the quality of the identified studies, including the methods used, the sample sizes, and the validity of the findings. The findings from the literature review were used to inform the research questions and hypotheses of the study and to provide a theoretical framework for the study. The gaps identified in the literature also guided the selection of research techniques and the data collection process to ensure that the study addressed the key issues and challenges facing the didactic system of open education in Ukraine. Overall, the literature review process was a critical part of the study, and it ensured that the research was grounded in the existing knowledge and provided a solid foundation for the study's findings and conclusions.

The article discusses the main initial methodological ideas of open education, which include the ideas of activity, consistency, and reflection. These ideas are based on the principle of induction, which involves drawing general conclusions from specific observations or experiences. In this case, the observations and experiences of students and teachers in open education are used to generate ideas about the system as a whole.

The article also discusses the integration of the goal, content, method, form, and result elements of didactics into each other, which generates a harmonious, logical, and complete theory. This

integration is an example of deductive reasoning, which involves drawing specific conclusions from general principles. In this case, the general principles of didactics are used to inform specific aspects of open education, such as goal-setting, content selection, and teaching methods. Overall, the article uses a combination of inductive and deductive reasoning to explore the concept of open education and its potential for success in Ukraine. Inductive reasoning is used to generate initial ideas and insights, while deductive reasoning is used to apply general principles to specific contexts and situations.

In addition the study combined both qualitative and quantitative data collection methods. The quantitative data collection involved administering surveys to students and teachers in open education programs in Ukraine. The surveys were designed to collect data on the participants' demographic characteristics, experiences with open education, and perceptions of the didactic system of open education in Ukraine. The survey data were analyzed using descriptive statistics, such as frequencies and percentages, to provide a quantitative overview of the key issues and challenges facing the didactic system of open education in Ukraine.The qualitative data collection involved conducting semi-structured interviews and focus groups with students and teachers in open education programs in Ukraine. The interviews and focus groups were designed to collect data on the participants' experiences and perceptions of open education, their views on the didactic principles

Finally, the research conclude with a discussion of the potential of open education as a key to success in the present and future, including the challenges and opportunities that lie ahead for the system.

4. Results and discussion

An analysis of the psychological and pedagogical literature and educational practice of the country showed that today, within the framework of the traditional education system, new forms of organizing the educational process are being implemented, aimed at using the capabilities of the information educational environment (modular learning, distance learning, classless coursework, teaching in open studios, using network communication tools (tele-conferences, audio-video conferences, web forums, chats, blogs; internet portals; wikis; electronic mailing lists; white boards; mental maps, etc. (Kameneva, 2019).

The general characteristics of the new forms are openness, focus on the use of the educational information environment of the school, changes in the connections of the basic didactic relationship between teacher and student, teacher and the content of educational material, teacher and educational content, teacher, student and information environment of the school.

However, as our research in the cities of Odessa, Mykolaiv and Kherson regions of Ukraine shows, the use of ICT in teaching did not lead to essential changes in the learning process.

According to the level of use of virtual education systems innovative educational technologies, three areas can be distinguished:

1. Educational institutions, whose all work is based exclusively on Internet technologies.

Everything is carried out through the worldwide network: the choice of a training course, its payment, classes with students, the transfer of test assignments and their verification, as well as the passing of intermediate and final exams. Such training centers are called virtual universities, but there are not so many of them yet. This direction is at the initial stage of active implementation, but the advantages of its use are undeniable.

2. The most numerous areas are educational institutions that combine various traditional forms of full-time, part-time and distance education with technological innovations on the Internet. For example, some higher educational institutions are converting part of their training courses into a virtual form, namely, they create language classes for teaching foreign languages without a teacher, etc. In turn, distance education centers, although they rely on Internet technologies, are at the same time do not give up the practice of conducting face-to-face examination sessions. In any case, only part of the process will be computerized.
3. Training centers for which the Internet serves only as an internal communication medium. They can create business card sites for themselves that post curriculum information (plans), seminars, student timetables, university news, photographs and virtual tours, and library catalogs. In fact, this is just an advertisement for traditional higher education institutions, which in itself does not carry any academic load.

In the new edition of the Law of Ukraine "On Education" emphasized that "Citizens of Ukraine have the right to free education in all state educational institutions, regardless of gender, race, nationality, social and property status, character of work, ideological convictions, membership in parties, attitudes towards religion, religion, health status, place of residence and other circumstances".

An important innovation is the legalization of various forms of education. In particular, the law establishes the institutional, individual and dual forms of education. Forms of education such as home, network, and external education become equal in legal terms with classical institutional forms. This innovation allows for individualization of the educational process, which gives people a real alternative to receive a quality education. Distance education in Ukraine has existed for over fifteen years and has many supporters.

The document also identifies three forms of education: formal (official raising the level of education), informal (raising the level outside the official system of advanced training – trainings, circles, courses) and informal (self-education), which creates the basis for the introduction of a fundamentally new form of information society – open learning within the framework of a single educational space in Ukraine and other countries of the world as a whole.

Ukraine takes an active part in the creation of a single international educational space. Since the end of the 20th century, the country has undergone extensive modernization of the education system, aimed at its democratization and development "as an open state and public system."

Along with the gaining momentum of integration processes aimed at promoting national education towards openness to the European community, an information-open education system using distance learning technologies is emerging in Ukraine.

The high social significance of education both for the whole society as a whole and for each person individually, determines the urgent need for a clear designation of theoretical, conceptual and socio-organizational problems of reforming Ukrainian education and an effective search for ways of their practical solution.

All this requires the transition of the didactic teaching system to a higher level of complexity, the organic inclusion of innovative approaches to teaching, significant changes in the purpose of teaching and relations between the participants in the educational process, the use of new organizational forms, methods and innovative pedagogical technologies (Kameneva, 2019).

That is why the question of the formation of a high-quality and high-tech open education system is currently becoming acute.

5. Conclusions and research prospects

Today it is becoming more and more obvious that the classical model of education has actually exhausted itself and it no longer meets the requirements for educational institutions and education by modern society and production.

If earlier a student went to school for knowledge, today knowledge has ceased to be an end in itself. To know does not mean to be ready to use this knowledge. People began to acquire education outside the school walls, through various influences from the media and communication with peers from other educational institutions, regions and countries. This position is reflected in the thesis: from teaching to learning – as an independently organized person and selectively directed educational activity, in its various types and forms.

In pedagogical science, there is still no single definition of open education. The following features are distinguished: openness of education to the future; integration of all methods of human exploration of the world; development and inclusion in the processes of formation of synergistic ideas about the openness of the world, the integrity and interconnectedness of man, nature and society; free use of various information systems, which today play no less a role in education than direct communication with a teacher; personal orientation of the learning process; the psychological attitude of the student to the super task. In this connection, education is in the process of constant search and change, all the time forming new guidelines and goals; changing the role of the teacher; the transition to joint actions in new non-trivial situations in an open, changing, irreversible world.

The educational system of Ukraine has a huge scientific, cultural and spiritual potential and opportunities that can ensure its further progressive development based on the principles of open education. At the same time, new means of information and communication should not interrupt, cut off cultural values and traditions of national education, but continue and enrich them, open up new opportunities for obtaining quality education.

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