## ORGANIZATION OF EDUCATIONAL AND METHODOLOGICAL WORK IN THE SYSTEM OF DISTANCE LEARNING

# ОРГАНІЗАЦІЯ НАВЧАЛЬНО-МЕТОДИЧНОЇ РОБОТИ В СИСТЕМІ ДИСТАНЦІЙНОГО НАВЧАННЯ

The article considers the formation of distance learning competences which is actual during the lock down induced by pandemic disease and impossibility to conduct face-to-face learning. The process of acquiring knowledge and skills through a specialized educational environment, which is based on the use of information technology, provides the exchange of educational information at a distance and implements a system of support and administration of the educational process. A lot of home and foreign authors carry out the research of distance learning and the ways of its implementation in educational process. The emphasis is made on the most important distance learning requirements such as availability of interface. help and documentation in the native language; real capabilities of students; real technical and financial conditions of the educational institution. Principles of distance learning and its components are described on the example of using the MOODLE system or Modular Object-Oriented Dynamic Learning Environment - a learning platform designed to combine educators, administrators and students into one reliable. secure and integrated system for creating a personalized learning environment. The system enables collaboration at the student-student, student-teacher levels, as well as students use their own resources and other course elements that are available in the self-development system. The advantages and disadvantages of distance learning system are also marked in the article. The competencies in the field of distance learning the teacher is required to have are also discussed and it is concluded that the latest achievements in information technology used by the remote education can add much and make changes in the nature and capabilities of classical training system.

**Key words:** distance learning, competences, on-line learning, information and communicative technologies, professional orientation,learning platform.

У статті розглянуто основні питання формування компетентностей дистанційного навчання, актуального під час локдауна, викликаного пандемічною хворобою, та неможливості проводити очне навчання. Процес набуття знань і вмінь, отриманий через спеціалізоване освітнє середовище, що базується на використанні інформаційних технологій, забезпечує обмін навчальною інформацією на відстані й реалізує систему підтримки й адміністрування навчального процесу. Багато вітчизняних і зарубіжних авторів проводили дослідження проведення дистанційного навчання та шляхів його впровадження в навчальний процес. У статті акцентується на найважливіших вимогах дистанційного навчання, таких як наявність інтерфейсу, довідок та документації, які складені рідною мовою; реальні можливості учнів; реальні технічні й фінансові умови навчального закладу. Принципи дистанційного навчання та його складові частини описані на прикладі використання системи MOODLE або модульного об'єктноорієнтованого динамічного навчального середовища – навчальної платформи, призначеної для об'єднання викладачів, адміністраторів і студентів в одну надійну, безпечну й інтегровану систему для створення персоналізованого процесу навчання навколишнього середовища. Система забезпечує співпрацю на рівні студент – студент, студент – викладач, а також студенти використовують власні ресурси й інші елементи курсу, доступні до самостійної роботи й самонавчання. У статті також зазначено переваги й недоліки систем дистанційного навчання та обговорюються компетентності в галузі дистанційного навчання, яким повинен володіти викладач. Зроблено висновок щодо останніх досягнень в інформаційних технологіях, які використовуються в процесі дистанийного навчання та можуть багато чого додати в характер і можливості класичної системи навчання та навіть вносити в неї зміни.

**Ключові слова:** дистанційне навчання, компетентності, онлайн навчання, інформаційно-комунікативні технології, професійна орієнтація, навчальна платформа.

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#### Butkovska N.O.,

Senior Lecturer at the Department of Pedagogy, Foreign Philology and Translation Simon Kuznets Kharkiv National University of Economics

#### Formulation and justification of the problem.

One of the most widely spread definition of distance learning is a purposeful and methodically organized guidance of educational and cognitive activities of people who are at a distance from the educational center, which occurs due to electronic and traditional means of communication. The process of acquiring knowledge and skills through a specialized educational environment, which is based on the use of information technology, provides the exchange of educational information at a distance and implements a system of support and administration of the educational process. Nowadays due to the Corona virus situation, distance learning has turned

into the obligatory form of educational process. The use of distance learning allows integrating foreign languages into the general context of the learning process in higher education, and contributes to the use of previously acquired knowledge and skills of foreign languages. As far as the system of student's attitudes to the learning process concerns, it also helps to increase the students' motivation through the knowledge and skills obtained in previously studied professionally oriented disciplines. It also teaches them to see the final results of their work.

Analysis of recent research and publications. A lot of home and foreign authors carry out the research of distance learning and the ways of its

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implementation in educational process. Some of them, Helen O'Sullivan, for example, thinks that online programs can and should be viewed as an innovative platform through which access to higher education continues and provides students with the new knowledge, that is enriched by international insights and cultural awareness and this will not only ensure the global trends and advances, but also makes sure that education is truly accessible to all [6]. The research of Dror Ben-Naim has shown that students who have access to better designed, and more personalized, courses tend to have higher engagement and better results. Quendler E, Vanessa Dennen from Florida State University constituted that more and more individuals with online degrees enter the job market and as hiring managers have their own experiences with online learning. There are also Ukrainian researchers, such as V.J. Bykov, L.V. Oliynyk, A.I. Tverdokhlib, A.V. Ryazantseva, who also have developed this topic. They study the innovative information technologies and their influence on a person's creativity; blended learning methodology and what skills should be formed to interact successfully with partners in the course of communication.

Previously unsolved parts of general problem. The relationship between the mental processes, which allows to design and acquire knowledge, principles of learning and components of distance learning can be further considered, because not so many researchers have studied this area of distance learning. The defining of essential personality-oriented learning characteristics and constructivist didactics directed to the learning process is not thoroughly studied. Among them are technologies developed within the framework of constructivism and related to many concepts, for example, project training, the concept of human self-realization, the concept of human integrity of education.

The purpose of this article is to consider the ways of using the distance learning system in a higher educational institution and to analyze how the distance learning platform should be used to expand the traditional process of learning and communication [1, p. 10].

The main material study. All the most important distance learning requirements in an educational institution are the following: availability of interface, help and documentation in the native language; taking into account the real capabilities of students (full, simple, intuitive service on any computer, in any operating system and any connection with the network, without the need to install special software and hardware); taking into account the real technical and financial conditions of the educational institution (cheap, or better free), which allows easy installation in the existing operating system, not very high requirements for equipment and network capacity; considering the needs and capabilities of a teacher. They are simple content and user management, easy communication, the ability to create documents quickly, easy access, organization and description of different types of data, including multimedia [3].

Principles of learning and components of distance learning can be considered on the example of using the MOODLE system. Moodle stands for Modular Object-Oriented Dynamic Learning Environment – a learning platform designed to combine educators, administrators and students into one reliable, secure and integrated system for creating a personalized learning environment [4]. In the Moodle environment, students receive:

- 1) access to basic materials (texts of lectures, workshops, practical, laboratory and self-development works), additional materials (books, assistants, books, methodical tools) and to prepare for cooking and testing;
- 2) joining to groups (wiki, forum, chat, seminar, webinar);
- 3) the ability to look at the results of the distance learning course by the student;
  - 4) the ability to see the results of the test;
- 5) the possibility of communicating with the teacher through the account, forum, chat;
- 6) the possibility of storing files with registered users;
  - 7) possibility of reminding the course activities.

The teacher is able to:

- 1) use the tools for the development of own distance courses;
- 2) distribute primary materials (texts of lectures, preparation to practical / laboratory and self-development work); additional materials (books, manuals, methodical outlets in formats of .doc, html, pdf materials and through additional plugins);
  - 3) supplement educational elements to the course;
- 4) carry out a quick modification of the primary materials:
  - 5) apply different test types;
  - 6) make automatic tests;
- 7) automate the process of converting knowledge, which is received by students during the course and tested;
- 8) add different plugins to the course which allow the teacher use various software for distance learning [5, p. 39].

According to the concept described above, the MOODLE system has been equipped with a number of tools that enable collaboration at the student-student, student-teacher levels, as well as students use their own resources and other course elements that are available in the self-study system. These tools include: voting, questionnaires, chats, forums, lessons, magazines, tests, dictionaries, tasks, etc. It is important to emphasize that the MOODLE system is evolving rapidly. There is a whole community of professionals communicating through this system, practitioners and researchers from different scientific fields of knowledge, from different countries and continents (including Poland, Ukraine, Russia, Australia, Nigeria, Cuba, Czech Republic,

Canada, etc.), who test and evaluate new versions of MOODLE, offer ideas for its development, share positive practical experience of its use in pedagogical practice, provide assistance to those who apply it. The list of registered educational institutions and companies using the MOODLE system in July included more than 1,670 organizations from 92 countries. The list includes almost all levels and types of schools, teacher training centers, as well as private and public universities [6]. In Ukraine, MOODLE is used as a distance learning platform at the Kyiv-Mohyla Academy, at the Department of Informatics at the National Pedagogical University, Ternopil National Pedagogical University, Humanities and Economics Institute (Zaporozhye), S. Kuznets Kharkiv National University of Economics, etc. As a regional platform for distance learning it is used in Kherson (Kherson State University, Kherson Institute of Economics and Law, South Ukrainian Regional Institute of Postgraduate Education of Teachers in Kherson, Kherson Academic Lyceum at KSU, Gymnasium № 3, Lyceums of Journalism law and business) and some other educational institutions of the country [1, p. 72].

It is known that today every teacher, regardless of the subject he teaches, must have competencies in the use of ICT (information and communication technologies) tools in their professional pedagogical activities [3].

Teachers of distance courses must have a universal training – to have knowledge of modern pedagogical and information technologies, to be psychologically ready to work with students in a new educational and cognitive environment, in which students feel an integral part of a team, which increases motivation to learn. Teachers must have methods of creating and maintaining such a learning environment, develop strategies for this interaction between participants in the learning process. increase creative activity and their own skills. In a way the distance learning system can serve as a mental tool providing ample opportunities not only for the integration of tools and a variety of materials from different sources. but, above all, the coordination and implementation of the most transparent aspects of traditional learning, e-learning and distance learning [8].

Thinking about distance learning courses which are developed with the help of the Internet technologies, a wide variety of their types and models can be mentioned. They have certain advantages. The students of this form of education are provided with a full set of teaching materials for each discipline, which includes electronic interactive multimedia textbooks (references, syllabus of distance learning, multimedia learning dictionary, electronic library) on CD (CD), workbook (with the schedule and plan of the educational process, tasks and information for all types of classes) and additional information materials. The purpose of foreign language proficiency is to acquire the required level of foreign language competence. The basis of mastering communicative competence is speech knowledge and skills, as well as sociocultural knowledge, skills and abilities [7, p. 21]. The essence of the teacher's work under these conditions is to create educational and methodological support of the discipline in electronic form, in constant work on making the necessary changes in the material, selection of color illustrations, graphics, creating flashanimations, tests for self-control. If the educational and methodical material is available in electronic form, it is possible to make an e-book quite quickly with the help of computer programs. But it cannot be called a full-fledged electronic textbook, because special electronic publishing houses are currently working on it. Specialized software is used to manage the educational process, control knowledge, deliver educational content to students and provide didactic materials. It contains an automated document management system, electronic information databases, glossaries and interactive multimedia textbooks, other electronic materials for all courses. The software is installed on the server of the educational institution. But the aim of distance learning is not only in providing educational and methodological materials. It is important to take the necessary organizational measures to ensure the admission of students to study, manage their learning [1, p. 116]. Distance learning has a set of the following activities: means of providing educational material to the student; means of monitoring student performance; means of monitoring student knowledge.

Distance courses are characterized by:

- flexibility or the ability to present the course material, taking into account the training and abilities of students. This is achieved by creating alternative sites to obtain more detailed or additional information on obscure topics, as well as a number of hint questions, etc.;
- relevance or the possibility of introducing the latest pedagogical, psychological, methodological developments:
- convenience or the ability to study at a convenient time, in a certain place, getting an education without separation from the main job, no time constraints for learning the material;
- modularity or the division of material into individual functionally complete topics, which are studied as they are mastered and correspond to the abilities of an individual student or group as a whole;
- cost-effectiveness or the method of teaching which is cheaper than traditional, due to the efficient use of educational facilities, easy adjustment of e-learning materials and multi-access to them;
- the possibility of simultaneous use of a large amount of educational information by any number of students;
- interactivity or active communication between students of the group and the teacher, which significantly increases the motivation to learn, improves the assimilation of the material;
- greater opportunities to control the quality of education, which include discussions, chats, the use of self-control, the absence of psychological barriers;

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- means of student consultation by the programteacher;
- means of interactive cooperation between the teacher and the student;
- the ability to quickly update the course with new information, correct errors.

There are no geographical boundaries for education. Different courses can be studied in different educational institutions around the world. That is why the Departments of Foreign Languages of different higher education establishments is working to create a package of documents and teaching materials and place them on the sites of personal learning systems. This is the placement of important information, as well as programs, plans, materials, which contain guidelines for practical classes, for the current and final control of the discipline, tasks for comprehensive control work, for independent work in the course management of such systems as Moodle and other additional methodological materials. Besides, there is a form of distance learning, which is carried out during the session and in the intersessional period. Part-time session is a part of the academic year, during which all forms of the educational process provided by the curriculum are carried out (training sessions: lectures and laboratory, practical, seminar and individual classes and control activities) [2].

However, distance learning has not only advantages, but it is not without a number of disadvantages:

- 1. Stronger motivation is needed. Practically the student masters all educational materials independently. This requires sufficient willpower, responsibility and self-control. Not everyone is able to maintain the right pace of learning without outside control.
- 2. Lack of practical skills and abilities. It is quite problematic to organize distance learning in the areas of training and specialties, which provide a large number of practical classes. Even state-of-the-art computer simulators will not replace future managers of "live" practice.
- 3. In distance learning, personal contact of students with each other and with teachers is minimal, or even completely absent. Therefore, this form of training is not suitable for the development of sociability, confidence, teamwork skills.
- 4. The problem of student identification is not solved too. So far, the most effective way to track whether a student has taken exams or tests on their own is through video surveillance, which is not always possible. Therefore, students have to personally come to the university or its branch for the final certification [2].

Conclusions. In conclusion, it should be noted that distance learning provides the opportunity to learn at one's own pace according to an individual plan, which leads to greater responsibility and independence of a student and is largely based on his desire and need to have professional knowledge and skills. One of the systems of remote learning is Moodle or Modular Object-Oriented Dynamic Learning Environment. This system is designed

to organize online learning in a networked environment using Internet technologies. The system provides a variety of online learning procedures, a combination of which can be organized in effective learning. Besides it has greater opportunities to control the quality of learning, which involves the use of self-control, the absence of psychological barriers. Reporting and management of assessments allows statistical processing of the results and differentiating tasks according to the degree of complexity and the level of students' preparation. Although there are some weak points of distance learning technologies, their introduction in education significantly increases the productive capabilities of higher education, expands educational environment, increases the opportunities for communication between students and teachers and provides access to world information resources [8].

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