



## METHODOLOGICAL PROPERTIES OF THE MOODLE PLATFORM IN THE ORGANIZATION OF E-LEARNING

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### ABSTRACT

This article describes the concept of e-learning, its importance in the pedagogical process, the form of presentation of e-learning to students, methods of communication in e-learning and methods of delivery of educational resources to students. In addition, the main pedagogical principles of e-learning and methods of its implementation are presented, based on which the main methodological features of the Moodle platform, which is one of the most effective tools for organizing e-learning, are considered.

*Keywords: e-learning, content, e-tools, interactive mode, educational content, basic pedagogical principles of e-learning, teacher, learner, distance learning, course resource, course element, e-learning methods, Moodle system, information.*

### INTRODUCTION

E-learning is one of the most important issues in the education system today. As e-learning, we understand the educational process, which is based on special e-learning platforms, mainly using information technology and Internet technologies. There is a lot of research being done on e-learning today. With this in mind, in this article we also found it necessary to express our opinion on e-learning. In general, there are many e-learning platforms, and in our research we have considered the main methods of organizing the educational process based on the Moodle platform, and also used the scientific results of scientists conducting research on this platform.

### SCIENTIFIC AND PRACTICAL SIGNIFICANCE OF THE TOPIC

E-learning can be defined through teaching and learning based on pedagogical technologies. With this in mind, let us first consider the definitions given to e-learning.

Chin Paul describes it as “e-learning is not a means of transmitting content, but an interactive process between teacher and student”[1]. M. Sloman describes e-learning as teaching using electronic means, i.e. the Internet, intranet or extranet [2].

Shenk and Sittse believe that “e-learning involves the use of network technologies such as the Internet and business networks to provide, apply and evaluate formal and informal learning”[3]. They also stressed that online education doesn't just have to be online. The use of technology in education is the basis of extracurricular education.

Based on the above definitions, we can define e-learning as an educational process based on special e-learning platforms using Internet technologies based on information technology.

Consider the role of e-learning in pedagogy. It should be noted that modern technologies have entered traditional education in a way that has updated and preserved some aspects.

E-learning allows learners to use once-created multimedia educational content multiple times in an interactive mode. In this way, learners will not only be able to follow the process of creating content, but will also be able to create it themselves. e-learning forms social networks, forums, chats in educational content. Wiki and internet forums organize new forms of communication. In addition, they allow the formation of site content, the development of a dynamic model of improving educational materials. Modern technologies ensure the popularity and speed of the communication process.

In the traditional education system, textbooks are updated every three to four years, but e-learning has the ability to update new textbooks every day, as the authors receive new material through RRS-channels, teammates, students. This shows how important modern technologies are in the educational process. It should also be noted that e-learning allows you to switch to another resource through hyperlinks in a voluntary e-learning resource, while retaining the features of traditional learning.

Nowadays, a teacher has to learn how to communicate remotely. Based on this, it will be possible to create, complete, edit and publish training materials. Here we can no longer organize lectures like in traditional education. In traditional education, information unknown to the student is conveyed to the audience. In e-learning, all learning materials are delivered to learners in the form of various formats of information transmission.

Therefore, the teacher will now be able to take a creative approach to the lecture, provide students with sources of information used in the preparation of the lecture, or the students themselves will be able to find additional sources of information on the lecture. Then the report will be discussed on this basis. During the discussion, students' opinions on the report are considered and a general conclusion is reached. The teacher can also give students independent work topics.

Based on the above, John Anderson and Robert McCormick have developed the basic pedagogical principles of e-learning, based on the characteristics of the relationship between teacher and learner, and how to deliver educational content to learners[10]. These principles are as follows:

Principle 1. Must be relevant to the curriculum. Pedagogical content should be structured in accordance with the curriculum, depending on the purpose, the content of the subject, the work of students, the evaluation criteria.

Principle 2. Enter. In pedagogical activities, learners should have the right to education regardless of their social origin, place of residence and gender.

Principle 3. Involve students. In pedagogical activities, it is necessary to involve students in education and encourage them to take an interest in science.

Principle 4. Innovative approaches. In order to achieve the goal in pedagogical activity, it is necessary to implement the educational process in an innovative way with the effective use of digital technologies.

Principle 5. Effective teaching. In pedagogical activity, the learner should be given the opportunity to choose the learning process at will and provide effective ways to provide digital materials to the learning process.

Principle 6. Formation cost. Provide prompt feedback for student performance to improve the quality of education in pedagogical activities; create opportunities for expert evaluation with an understanding of the required criteria or performance standards; it is possible to provide a formative assessment based on the creation of opportunities for self-assessment based on appropriate criteria and standards.

Principle 7. Final evaluation. In pedagogical activity, the final assessment should be reliable, understandable to teachers, students and parents, determine the level of achievement, without negative emotional impact on the student.

Principle 8. Consistency, consistency and transparency. Pedagogical activity should be consistent with the purpose, content, student activity and assessment (where available) and should be open and transparent. Users need to know exactly what to do.

Principle 9. Ease of use. E-learning should be open, understandable and should not require instructions for use (both teacher and student), and appropriate instructions should be given to the student or teacher.

Principle 10. Economic efficiency. Technological solutions should be reasonable, transparent and inexpensive.

There are also several ways to make e-learning effective. They are as follows:

1. Blended learning - it is an effective strategy for the highly targeted use of learning opportunities. Using this strategy, part of the lesson is conducted in real time in the classroom or through a distance learning portal, and part through LMS (through discussion forums, online assessment, etc.).

2. Training based on interactive lessons is the most typical method of training. In a highly interactive environment, basic and intermediate skills and knowledge can be effectively presented, evaluated and monitored in the presentation of learning materials. This is usually triggered via an LMS and is packaged as a SCORM object or xAPI object.

3. Simulation-based exercises allow users to learn to operate in an environment that is easy to work with complex computer programs. It provides users with a way to experiment and train in an environment that does not lead to serious or dangerous consequences.

4. Practical teaching is a method designed for users to use real-world issues, developed by students throughout the course. It is used by students to overcome the difficulties they face while doing work in the classroom. Problem-based learning forces users to analyze decisions in an exchange environment that helps them move on to the next level in the learning environment.

5. Problem-based learning is studied as a process that involves solving problems in the learning process and critical thinking in this situation. This allows students to be active and responsible. Great emphasis is placed on the use of communication, collaboration, and resources to help students formulate ideas and develop conclusions to solve problems.

Based on the basic pedagogical principles of e-learning and methods of its effective implementation, we will consider the main methodological features of the Moodle platform in the organization of e-learning.

Today, e-learning resources, which constitute e-learning, are a modern way of organizing the learning process and have a special significance among users, including the Moodle platform.

The Moodle platform is one of the most effective ways to organize e-learning, based on the five principles underlying the system under the general name of "social constructivism" formulated by Martin Dougiamas[7]. At the heart of these principles is the ease of interaction between the system-teacher-student, the

flexibility of education. Given these principles, we will consider the main components of e-learning, such as the subjects of education, the communication systems between them, and the area in which the learning process takes place. The main component of the e-learning model is the transfer of information in a special information and learning environment (virtual). The specificity of the field radically affects all the structural values of educational activities, such as learning motivation, learning situation, monitoring and evaluation of student knowledge[5].

The organization of the learning process on the basis of the Moodle platform consists of two stages:

In the first stage - preparation - the teacher creates and completes the e-course with logically arranged educational information based on the characteristics of the subject, provides students with the opportunity to advise and plan the learning activities of all subjects. This requires not only hard work, but also special knowledge of teachers in the field of information technology.

In the second stage - the main - the organization of students' educational activities in accordance with the curriculum, as well as the adjustment of the structure of teaching materials and electronic courses.

Based on the above, we will consider the methodological features of the Moodle system in the organization of e-learning. We consider this on the example of the distance learning system moodle.samdchti.uz of the Samarkand State Institute of Foreign Languages. moodle.samdchti.uz distance learning system currently has 5991 users, 445 distance learning courses [11].

Once registered in the SamDChTI distance education system by an administrator, students must be enrolled in their courses by distance learning teachers. Students will then have access to distance learning courses filled with teaching and methodological materials. The Moodle system has tools that allow the student to learn independently under the guidance of a teacher.

Students first get acquainted with the structure of the course, study the methodological guidelines, work schedule, requirements for completing assignments. After that, students take a distance learning course and begin to get acquainted with the study materials. After each theoretical material, students are given the necessary assignments and take the final test accordingly at the end of the subject.

Another important aspect of e-learning is the interactivity that takes place between teacher and student. To do this, you can conduct various forums and chats in the course.

Like other forms of education, the distance learning process is built in accordance with the teaching and research activities of teachers and students. The learning process begins with an introduction to a new problem and issue, which uses a variety of methods and teaching aids to become familiar with the new material. It provides links to information needed for students to solve a given problem and search for material independently. Accordingly, the distance course will consist of a system of links needed to find information, so we use the URL resource.

It is necessary to form the basis of the work to be done by getting acquainted with the new material. Therefore, in the system, students are given assignments to check their knowledge. To do this, use the elements "Assignment", "Choice" and "Test". These elements allow students to check individually how they have mastered the new material.

In the Moodle system, theoretical material is presented using the Lesson element. In this case, the sequence of pages is given in the form of theoretical materials and questionnaires. Going from page to page is

pre-determined by the teacher. In the development of the lecture material, lectures and assignments are given in an organic sequence.

In the report test questions are formed depending on the study material. If a student answers the questions incorrectly, it is returned to the study material. These tests can be used to form skills based on memorizing learning material.

Students will be provided with the theoretical material of the lecture or practical training in the form of a file with the extension pdf through the resource "File", after reading the theoretical material the student will perform the tasks given through the element "Assignment". The completed task is uploaded by the student to the server, the teacher checks and evaluates the task himself or sends it for the student to complete again. Then the next lecture is given for the student.

At the end of the course, the student takes a control test. The control test is entered through the "Test" or "SCORM package". The Test element works directly on the Moodle platform and allows you to create a test using the existing types of tests, while the SCORM package allows you to create a test program using the capabilities of iSpring and place it on the Moodle platform. After taking the test, the student will be able to see the test result, see their answers, and compare their answers.

In e-learning, a modular rating system is used to assess knowledge, which allows students to assess their knowledge, develop the skills of independent search for materials, to conduct research independently.

The following key features are taken into account in the formation of the modular-rating system of assessment:

- modular sorting of the course;
- formation of control work on the course / module;
- determination of the score-rating scale;
- to inform students about the limits of assessment, the deadline for submission of control work, the transfer of points to the final grade;
- view the rating log.

At the same time, students are evaluated for their work during the course.

Distance courses should form an interactive connection between student and teacher, students and student and learning material to improve the quality of education. Students work in groups, exchange questions, and work on projects.

Providing feedback between students and the teacher allows for constant monitoring of problems that arise in the activities of students. The feedback mechanism is aimed at examining the goals and objectives at each stage of education. Feedback can be done in any form, including (incoming, intermediate, final) control test, discussion, teleconference. To do this, students can write questionnaires on the desired line of the form or use questionnaires and tests where they can choose the correct option from the several options provided.

The teacher's responsibilities include advising students on the issues raised, advising students on problematic issues, discussing the issues being studied, and adapting the learning material to control mastery.

Based on the above, we can describe the structure of the e-learning system formed on the Moodle platform in the following view.

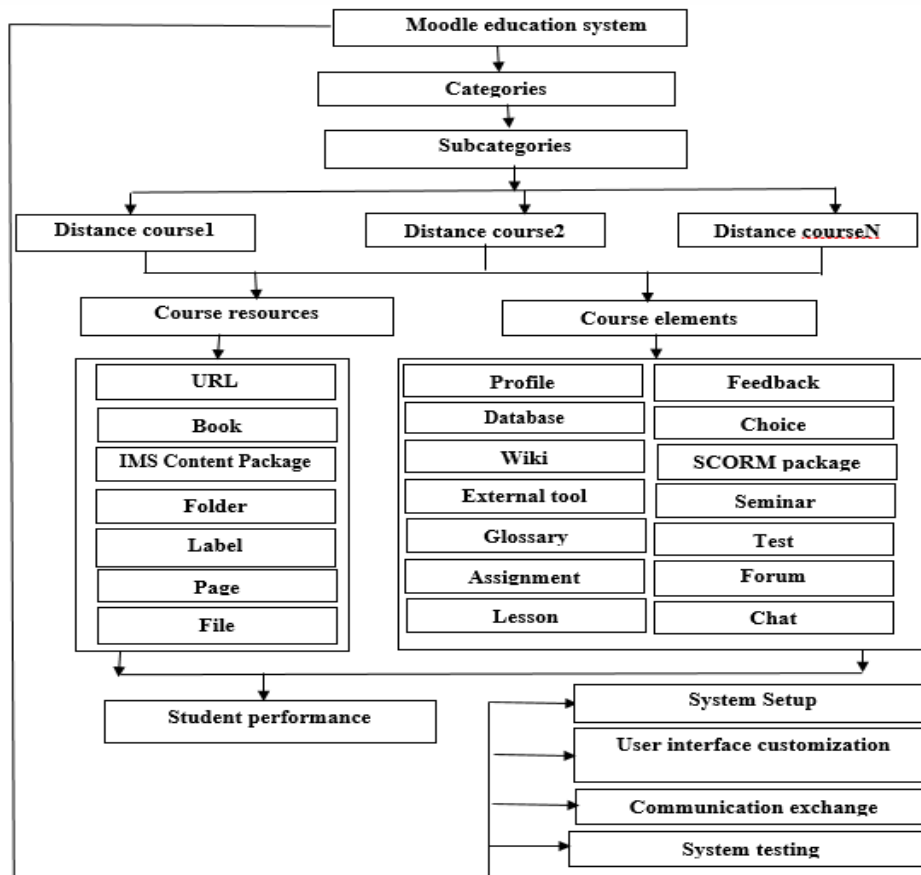


Figure 1. The structure of the e-learning system formed on the Moodle platform

During their work on the Moodle platform, it can be seen that students have become more interested in independent learning in the field of information technology, able to self-assess on the basis of individual work regime.

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## CONCLUSION

This article discusses the methodological and pedagogical features of the Moodle platform in the organization of e-learning. To do this, first of all, the content of the concept of e-learning was studied, on this basis, the definitions given to it were considered and the concept of e-learning was defined. Pedagogical features and opportunities of e-learning were considered. At the same time, the Moodle platform provides course resources and important functions of course elements, which play an important role in the organization of the educational process.

While working on the Moodle platform, students have shown an increased interest in independent learning in the field of information technology, the ability to self-assess on an individual basis, and the interactive system-teacher-student interaction, but at the same time some students it can be observed that they do not receive help from outside. Low Internet speeds also often have a negative impact on distance learning.

It should be noted that the use of information technology in education further enhances the capabilities of the teacher in the educational process. It is important for the teacher to work more on himself during the distance work, to establish interactive communication with the students remotely.

## REFERENCES

1. Chin, P. (2004). Using C&IT to Support Teaching: Key Guides for Effective Teaching in Higher Education. London, UK: Routledge Falmer
2. Sloman, M. (2002). The E-learning revolution: How technology is driving a new training paradigm. New York, NY: American Management Association.
3. Shank, P., & Sitze, A. (2004). Making sense of online learning: A guide for beginners and the truly skeptical. San Francisco, CA: Pfeiffer.
4. FU Anarbaeva, AA Abdullaev, AF Qoraev. Pedagogical approach to the use of electronic education in the educational process, EPRA International Journal of Research and Development (IJRD), Vol:5|Issue:2|February. 2020  
[https://www.eprajournals.com/jpanel/upload/1232am\\_84.EPRA%20JOURNALS-2243.pdf](https://www.eprajournals.com/jpanel/upload/1232am_84.EPRA%20JOURNALS-2243.pdf)
5. Fotima U. Anarbaeva. Pedagogical methods for using electronic education in educational system, Herald pedagogiki. Nauka i Praktyka # 51 (01/2020)- [http://xn--e1aajfpeds8ay4h.com.ua/files/97\\_3\\_ii\\_2020\\_herald\\_pedagogiki\\_51.pdf#page=146](http://xn--e1aajfpeds8ay4h.com.ua/files/97_3_ii_2020_herald_pedagogiki_51.pdf#page=146)
6. Марчук Н.Ю. Психолого-педагогические особенности дистанционного обучения // Педагогическое образование в России. — 2013. — №4
7. А.Н. Бехтерев, А.В. Логинова, © Использование системы дистанционного обучения «MOODLE» при обучении профессиональному иностранному языку // Открытое образование.- 2013. -№4  
Dougiamas, M.A. Journey into Constructivism [Электронный ресурс]. – Режим доступа: <http://dougiamas.com/writing/constructivism.html> (дата обращения: 01.10.11).
8. Philosophy of Moodle, Moodle: open-source community-based tools for learning [Электронный ресурс]. – Режим доступа: <http://docs.moodle.org/21/en/Philosophy> (дата доступа: 01.10.11).
9. Pedagogy of Moodle, Moodle: open-source community-based tools for learning [Электронный ресурс]. – Режим доступа: <http://docs.moodle.org/21/en/Pedagogy> (дата доступа: 01.10.11).
10. [https://www.researchgate.net/publication/47343091\\_Ten\\_pedagogic\\_principles\\_for\\_E-learning](https://www.researchgate.net/publication/47343091_Ten_pedagogic_principles_for_E-learning)
11. [moodle.samdchti.uz](http://moodle.samdchti.uz)