



## Moodle – as an Effective Learning Management System in the Modern Digital World

**Asadova Yulduz Ismatovna**

Lecturer of Bukhara State Pedagogical Institute Department of Exact Sciences, [sirus77@inbox.ru](mailto:sirus77@inbox.ru)

**Annotation:** Information Technologies are used in almost all branches of science and technology, including education. Technical training anytime, anywhere is a new concept in today's digital world. Therefore, it is necessary to change teaching methods in accordance with technological changes. A recent trend in higher education institutions around the world is the use of e-learning, as it requires students to be more prepared with its comprehensive and fast, convenient and consistent learning of generally accepted scientific concepts. This article reveals the effectiveness of a blended learning environment by analyzing the relationship between the characteristics of various teaching methods, as well as the mechanisms of the learning management system (LMS) - a widely used and recognized worldwide set of teaching methods. Especially in the Moodle platform, the positive aspects and details of Moodle are indicated, in contrast to the traditional alternative methods. In addition, the use of technology and the Internet has made education so convenient that it can undergo significant changes, thereby introducing new methods of teaching and learning. Students are part of the new digital age; their activities revolve around computers, smartphones, games, and online messaging. Recently, one of the most widely used teaching methods that is used to advance knowledge is focused on online learning. The use of information and communication technologies (ICT) in education and in particular the integration of Learning Management Systems (LMS) play a vital role in today's digital age. Learning Management Systems (LMS) are technological learning environments that support online learning. They offer comprehensive synchronous and asynchronous services that support collaborative learning. This article briefly talks about e-learning, LMS, their features and role in the current learning process.

**Keywords:** LMS, E-learning, ICT, information, communication, knowledge, profession.

### Introduction

Computers and the Internet are used as technical tools to improve the teaching and learning process. It is said that the multimedia capabilities and hypertext navigation tools of the World Wide Web not only provide access to a variety of points of view on a particular subject, but also provide a certain degree of control for students when they try to understand the content (Gunawardena, 1999).

Traditional teaching methods, when teachers read hours-long lectures in front of the blackboard, do not "work" with today's students and, of course, will not work with tomorrow's students. Thanks to the use of ICT (Information and Communication Technologies), the role of a teacher is transformed from a traditional profession into an intermediary helping students acquire knowledge (Kalogiannakis, 2010). King (1993) advocates the importance of the student playing a more active role in the learning process, rather than passively learning.

Active learning is defined as the process of involving students in activities so that they can reflect on ideas and how these ideas are implemented (Michael 2006). We live in an era of ICT dominance, and the opportunities that students have for learning, developing skills and critical thinking through ICT are clearly demonstrated in a series of policy initiatives over the past decade (Littleton & Whitelock 2005; Muttona et al. 2006). The integration of ICT as an educational tool should be considered as an approach to updating the teaching and learning procedure.

It is now inevitable that teaching and learning methods should include components of e-education based on a computer environment and include proper preparation for the 21st century, which requires a "new pedagogy" (Martin and Madigan, 2006).

Over the past decade, the use of modern technologies in language teaching has increased dramatically worldwide. With the creation of the World Wide Web, it has become possible and feasible for teachers to use teaching materials effectively. One of the advantages of using Internet resources is that teachers can easily get the latest and most up-to-date information for their students (Moore, Morales and Karel, 1998).

Online communication improves students' thinking abilities and they feel less stressed. Online learning can allow students to interact with other native speakers of the target language. Warshauer (1997) argues that online communication is a possible cognitive enhancer that encourages both reflection and interaction. Many institutions create the need to develop effective methods of teaching pedagogy. E-learning is increasingly seen as a means of overcoming the resource scarcity faced by many educational institutions. E-learning support can be transformed into teaching and learning, as well as to reach and motivate students with special needs. The e-learning aspect is especially important for students living in remote areas, in non-urban settings, who may lack authentic materials and contact with the target language and culture. Among technological simplifications, Moodle is one of the tools that is widely used for teaching and learning transfer. Moodle is a free licensed open source software platform that involves e-learning.

The learning management system gives an idea of the various tools that can be used in Moodle, such as blogs, chat, forum, uploading assignments, viewing or downloading electronic content, news and student assessments using online quizzes, tests, etc..

Training and education is a learning environment in which it is necessary to use modern approaches to study various aspects of topics. There are a number of software and hardware available for training. Many learning systems are closed, and some are open. Virtual Learning Environments (VLE), such as Moodle, are now widely used in universities and other organizations. Moodle is an open source learning management System (LMS). Moodle is a software package for creating online courses and websites. It is a Learning management System (LMS) that allows for improved collaboration between students, teachers and students.

### **Open Source Applications:**

The platforms of free online classes, which should be hosted on your own server, are "open source applications". This means that the software is available free of charge for limited use under the terms of the GNU General Public License (GPL). This basically means that the user can copy it, distribute it, even charge for it, but cannot get patents on it. In addition, the source code should always remain open and viewable by anyone who views the site, so that it does not become proprietary..

There are many commercial or open source systems available for organizing courses offering access to course materials, communication support, as well as receiving and evaluating student papers (Roetal., 2010).

### **E-learning:**

E-learning is a developing field as a promising educational tool, as well as a mature arena for conducting research on its impact on teaching and learning activities. The fundamental nature of e-learning as a learning tool differs significantly from face-to-face learning, which requires more new functions for course development, online assessment and interaction. The introduction of effective e-

learning using Moodle and how various Moodle tools are used by professors to provide an interactive and stimulating learning experience when providing higher education at various technology colleges.

E-learning is the process of learning electronically via the Internet or the Internet using an education management system. In general, two approaches are usually used in e-learning.

Traditional learning is being replaced by web-based learning (WBT) or e-learning. “E-learning” is rapidly becoming the preferred way to create and maintain advanced productivity capabilities by increasing efficiency and effectiveness. For many governments, especially in developing countries, the acquisition of commercial films can be very expensive to host content. The purpose of this article is to present open source software and how it can be used in the implementation of a free LMS system, as well as to present how higher education in the field of distance education at the Bukhara State Medical Institute.

### **Teaching in an e-learning environment:**

Teaching in an e-learning environment can contribute to the development of the ability to teach, the ability to learn, and most importantly, the connection between the two main components in the classroom, the teacher and the student. E-learning offers various environments for students with independent, interactive, non-linear access to a wide range of information (text, graphics, animation, video, images, tabs, glossary, forum, chat, etc.), as well as to self-study in online communication (email and forums). [3,5].

E-learning is created on the basis of ideas such as independent learning, active learning, independent learning, problem-based learning, imitation and work-based learning. Most of these models are based on constructivism, according to which students become responsible for regulating their own

Teaching method. Self-regulated learners are motivated, independent and metacognitively active learners in their individual learning.[6,9].

**E-learning methods:** There are two approaches to e-learning, namely Synchronous e-learning and Asynchronous e-learning.

### **Synchronous E-learning:**

Synchronous e-learning, usually supported by media such as video conferencing and chat, has the potential to support students in developing learning communities. Students and teachers perceive synchronous e-learning as more social and avoid frustration by asking questions and answering them in real time.

Synchronous classes help students feel like participants, not isolated from the learning system.

### **Asynchronous E-learning:**

Asynchronous e-learning, usually facilitated by mass media such as email and discussion boards, maintains a working relationship between students and teachers, even when participants cannot be online at the same time. This is a key component of flexible e-learning. In fact, many people attend online courses because of their asynchronous nature, combining education with work, family and other commitments. Asynchronous e-learning allows students to log into the e-learning environment at any time and upload documents or send messages to teachers or colleagues. Students can spend more time finalizing their contributions, which are usually considered more thoughtful compared to synchronous communication.

### **The e-learning process:**

The e-learning process can be presented in four stages

- a) Skills analysis
- b) Material development
- c) Training

#### d) Evaluation

- a) Skills Analysis - The training manager analyzes the student's existing skills and abilities, which are set as a learning goal, and receives the necessary material information. Then the manager searches for the appropriate material.
- b) Material Development - The developer creates the structure of the material structure and questions for exercises. The structure of the material is related to the explanatory pages.
- c) Training - The student participates in training that meets the needs, that is, in individual training for the acquisition of knowledge or in joint training for training in seminars.
- d) Assessment - The student performs exercises and passes exams using questions designed in accordance with the purpose of the training. The Training Manager evaluates each student using the results of exercises and exams.

#### Literature review:

Morrison (2003) defined e-learning as the use of the Internet for teaching and learning. This includes interaction between the teacher-student and the student-student or teacher-teacher, as well as assistance in the presentation of assignments by students. It provides and enriches educational content. In addition, students can use the Internet as a research and publishing tool.

Felix (2003) agreed that online education is carried out via the Internet or through the school's local area network. The scientist also defined e-learning as a process of learning using computers over the Internet, which meets three criteria: geographical distance separates communication between teachers and students, educational communication is two-way and interactive, and various technologies are used to facilitate the learning process of students.

Bach and Smith (2007) reported that e-learning encompasses several types of applications and processes, including computer-based learning, web-based learning, virtual classroom, and collaboration. The teachers explained e-learning as a subset of distance learning, online learning as a subset of e-learning, and computer learning as a subset of online learning. It is also mentioned that e-learning not only provides value through planned learning, but also recognizes the value of unplanned learning and student independence to increase learning experience to improve academic performance.

E-learning, also known as online learning or web-based instruction, provides a way to bridge the gap between successive generations of learners and prepare higher education needs in global education (Harris, 1996).

The tools available for creating e-learning started from basic computer programs, such as a word processor and graphics software for presentations, to complex computer programs for creating animation, films and three-dimensional graphical modeling. Learning Management Systems (LMS) are perhaps the main tools available for e-learning instructions. Moodle is a free online learning management System (LMS) that is good for teaching students to work independently.

The results of the experiment in this direction are published in the following articles [3;8;9;18].

#### MOODLE for e-learning:

Moodle is an "open source code" that allows developers to adapt the system to individual needs. It also interacts very well with many web resources (Facebook, YouTube, Wikipedia, About Click, Hot Potatoes, etc.), which allows developers to be creative and the versatility of Moodle design is based on social constructivist pedagogy. This means that its goal is to provide a set of tools that support an approach to online learning based on research and discovery. In addition, it aims to create an environment that allows for collaborative interaction between students as a separate or in addition to regular classroom instruction (CP) [15-18].

Moodle (Modular object-oriented dynamic learning environment)-it is basically an open source e-learning platform. Moodle is a Course management system (CMS) - a software package designed to



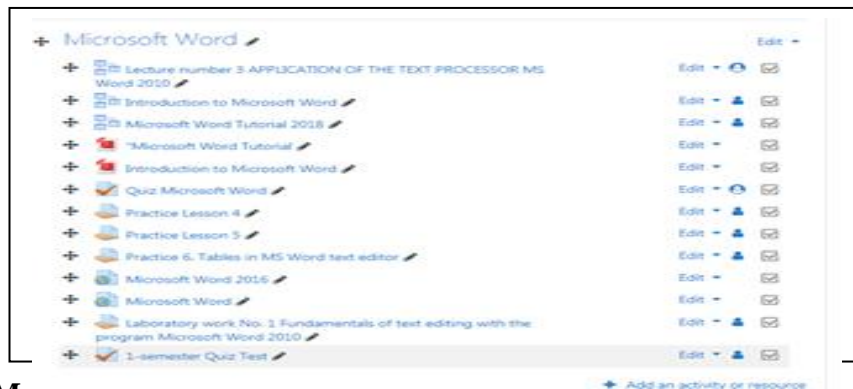
help teachers create high-quality online courses. Such e-learning systems are sometimes also called Learning Management Systems (LMS) or Virtual Learning Environments (VLE) [13-17]. Moodle is an excellent platform for resources and communication tools. It was created by Martin Dougiamas, a computer scientist and educator who is deeply convinced that CMS should be created by a teacher, not an engineer. [11-14]

The word Moodle is an abbreviation for a Modular Object-oriented dynamic learning Environment. Moodle is available for free under the terms of the GNU General Public License (GPL) and does not require licensing costs. [13-18]. Moodle is a software package designed to help teachers create online courses with dynamic interaction capabilities. Moodle is an open source software (OSS). Open source means "software that is freely available to people for both use and modification", making the code available [12-14].

Moodle is the name of the program that allows the class to go online.

This program allows students to find a common place for many resources in the classroom. Using Moodle, teachers can publish news, assign and collect assignments, publish electronic journals and resources, and much more, explaining that Moodle is a free online course management system (CMS), which is especially good for teaching students to work independently [13-17]

It contains many useful and convenient tools for creating and managing courses. Moodle is a template-based system that allows us to navigate easily. The entire page is presented in the "flat view" format. It is divided into small blocks and organized into sections according to the topic or weekly plan. Each section has its own tools, such as lessons, quizzes, assignments and forums. All blocks on the page can be arranged individually, and elements in each section can be easily moved or hidden. This is shown in the pictures .Figure 1



**Figure 1 Moodle is an excellent tool for teaching and independent work of students**

Moodle is a superbly implemented tool for teachers, because it is a platform for easily creating and saving educational materials, as well as a collaborative online platform for teaching teachers and students together. In addition to creating courses, it is also very useful to join online communities in order to keep abreast of events in the world and know the circle of scientists who will really cover the whole globe.

Moodle allows you to integrate a wide range of resources, from chats and forums to online booklets, various questions, collections of tasks and exercises, lecture notes; including any text documents or documents in html format, multimedia resources such as graphics, video or audio (for example, MP3 files), PowerPoint or Flash and Java applications-applets [14-15].

Teachers can provide students with a large number of resources that they usually cannot show in class due to lack of time. Lesson assignments in Moodle can be linked to any resources uploaded to the user's server or available on the Internet. Students' learning of any content-based resources can be easily evaluated using any of the Moodle-based assessment and feedback tools. [11-13].

Moodle is quite effective in creating content thanks to the built-in HTML editor. The level of required qualifications is essentially the same as for any word processor. More complex presentations, such as animations or special text provisions for feedback, must be created using external multimedia author programs. These materials cannot be added to the printed booklet.

## Moodle Apps:

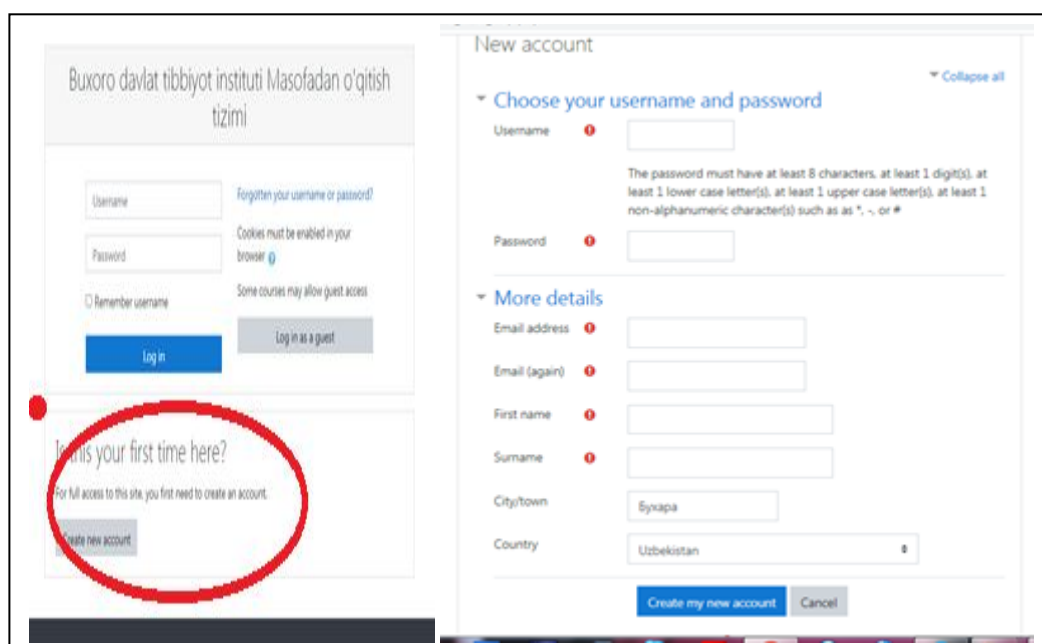
1. It is can provide material for listeners and students. The material can be divided according to the basic requirements of the training institution.
2. Evaluation of the intern and students.
3. Useful for every subject teacher or coach.
4. Moodle is the most widely used learning management system in the world.
5. Moodle is an extremely successful open source project.
6. Core Moodle has a robust set of teaching and learning tools.
7. In Moodle, thousands of regular community members promote the product every day.
8. Moodle is free to download and support by any user, but resources are needed to maintain the system.

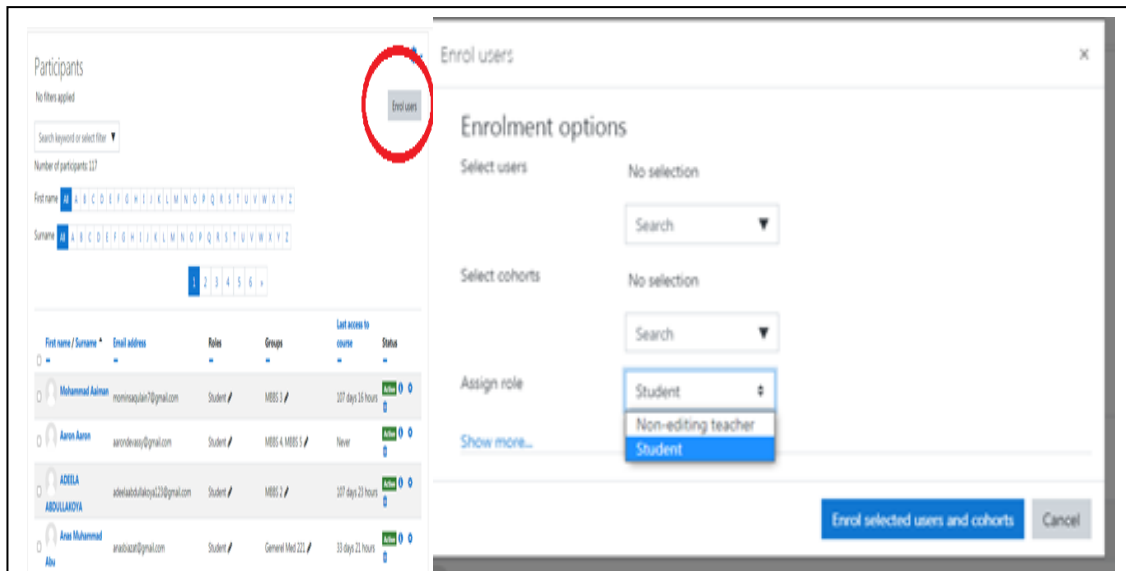
## Mechanism of access to MOODLE:

Moodle uses a role-based access mechanism and implements three main roles: administrator, teacher, and student. The user can be given any of these roles. A user can be a student of one course and a teacher of another. The teacher can also be a system administrator. Only those who have the administrator role can manage and create courses, assign the teacher role to others, or assign the administrator role to someone else. When a user signs up for a certain course, he will be given the role of a student.

Moodle provides four types of access devices for students to join the course. The first simplest method does not require authentication and allows any user to join the course. The second is the guest user mode, in which the user can take the course, but cannot participate in any activity. The third mode requires the teacher to record each student directly one by one. In this mode, the teacher has full control over adding or removing students. Both enrollment and deduction are carried out using a simple interface, which can be accessed via the participant's link on the main page.

It shows a list of all valid users in the system and a list of current students. The fourth option uses the enrollment key set by the teacher. The teacher should share this key with all his students. Students must provide this key at the first entrance to enroll in the course. If the key is valid, registration is completed and no key is required for further access. Once all students are enrolled, it is better to change the enrollment key to prevent misuse. If any "undesirable" student enters the course, the teacher can exclude him, as mentioned earlier. All these operations can be performed by selecting the "Settings" option on the Moodle course page. This is followed by pictures .Figure2.





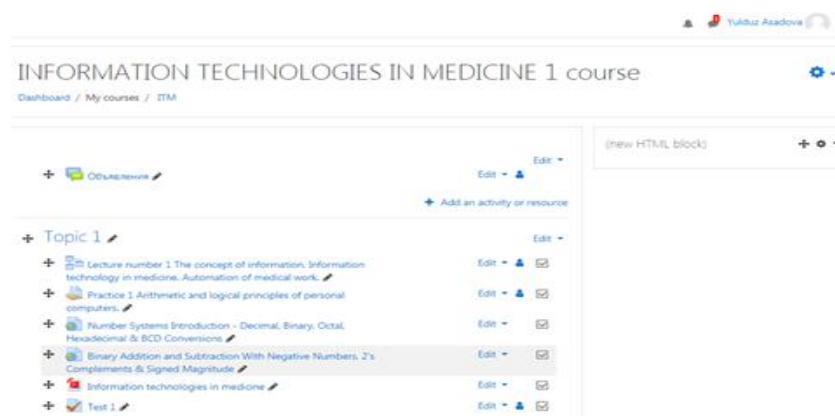
**Figure2.**

**Ease of use of Moodle:**

The Moodle interface is very user-friendly. As soon as the Moodle page opens, we can customize the first page by clicking on it. You can change the settings in the "Settings" section. For all editing purposes, we must first enable editing in the Settings section. We can add the full name of the site, a short description of the main page, etc. which is displayed on the main page of the Moodle site. We can set a theme for our site, such as Afterburner, Aria list, Formal White, etc. To change the theme, click.

Site Administration-Appearance-Themes-Theme selection. If we want the logo to be displayed on the homepage, we can add a custom logo option on the theme homepage. Creating users:

The administrator can create users by specifying a username, password, mail ID, etc. by clicking users in the Site Administration section. The information can be updated by the interested user in the "Profile" section after logging in. Any number of users can be created. Users are those who play a vital role in accessing the Moodle site. Creating a Course: Courses can be created by clicking Courses in the Site Administration section. You can add any number of courses, as well as add subcategories. This is followed by pictures .Figura 3.



**Figure 3 The main functions and operations of MOODLE:**

The main functions of Moodle include tools for creating resources and events. Resources tab: Offers the teacher the choice of creating shortcuts that are just headings for each topic or day of the week, creating text pages or web pages with a combination of text, images and links, creating links to files or websites/pages that can link to videos and other files, creating directories that are folders.

The "Actions" tab: includes: assignments, chat and selection (one question with a choice of answers – answers are recorded, so statistics can be deducted), a database that is a table created by a teacher and filled in by students.

Discussion forum: where everyone can publish a glossary in response to discussion topics-a type of dictionary created by a teacher, with the terms used and their meanings. The lessons offer web page flexibility, quiz interactivity, and branching capabilities. A quiz allows you to create different types of quizzes, a survey is a questionnaire that collects student feedback, and a wiki is a web page edited jointly. SCORM is a tool for including SCORM packages in content, which is packaged content that can be used in any virtual learning

### **Environment.**

The news will be published on the news forum, where the student will be able to learn about current events taking place in the world. There will also be announcements related to students' activities, such as payment of semester fees, Examination fees, Seminars, Workshops, Exam dates, department activities, etc.

The Forum Activity module allows participants to conduct asynchronous discussions, i.e. discussions that take place over a long period of time. There are several types of forums to choose from, such as a standard forum where anyone can start a new discussion at any time; a forum where each student can post only one discussion; or a Q&A forum where students must post first before they can view other students' posts. The teacher can allow you to attach files to forum posts. Attached images are displayed in a forum post.

Members can subscribe to the forum to receive notifications about new posts on the forum. The teacher can set the subscription mode to optional, compulsory or automatic, or completely prohibit the subscription. If necessary, students may be blocked from posting more than a certain number of messages over a certain period of time; this may prevent individuals from dominating discussions. A post on the forum can be evaluated by teachers or students (expert evaluation). The rating can be summed up to form a final score, which is recorded in the record book.

### **Forums have many uses, such as**

- Social space for students to get to know each other better
- For course announcements (using a news forum with a forced subscription)
- To discuss course content or reading materials
- To continue the online discussion of the issue raised earlier in the face-to-face session
- For discussions only with teachers (using a hidden forum)
- A help center where teachers and students can give advice
- Individual support zone for private communication between students and teachers (using a forum with separate groups and with one student in each group)
- For knowledge-building activities, such as "brain teasers" for students to ponder and propose solutions for

Exercise of choice; Moodle allows the teacher to ask one question and offer a choice of possible answers. The results of the selection can be published after the students answer, after a certain date, or not at all. The results can be published with the names of the students or anonymously.

An action of choice can be used;

- As a quick survey to stimulate thinking about the topic
- Quickly check students' understanding
- To facilitate student decision-making, for example by allowing students to vote on course direction



Chat Activity: Chats can be created for each topic, and users can discuss this topic in a chat with staff or other peer users. Chat Activity: Moodle allows participants to conduct synchronous discussions in real time based on text. The chat can be a one-time event or can be repeated at the same time every day or every week. Chat sessions are saved and can be viewed by everyone or restricted by the user with the ability to view chat session logs.

Chats are especially useful when it is impossible to meet face to face in a group chat, for example

- Regular meetings of students participating in online courses so that they can exchange experiences with other participants of the same course, but in a different place.
- A student who is temporarily unable to attend in person communicates with his teacher to catch up on work.
- Students with work experience get together to discuss their experiences with each other and with their teacher.
- Younger children use chats at home in the evenings as a controlled (supervised) introduction to the world of social networks.
- Q&A session with an invited speaker elsewhere.
- Classes that help students prepare for tests in which the teacher or other students will ask typical questions.

Glossary activities; the module allows participants to create and maintain a list of definitions, such as a dictionary, or to collect and organize resources or information. The teacher can allow attaching files to glossary entries. Attached images are displayed in the record. Entries can be searched or viewed alphabetically or by category, date, or author. Entries can be approved by default or require teacher approval before they are available for everyone to view. If automatic linking of the glossary is enabled, entries will be automatically linked where conceptual words and/or phrases appear in the course. The teacher can allow comments to the entries. The works can also be evaluated by teachers or students (expert evaluation). Grades can be combined to form a final grade, which is recorded in the grade book.

Glossaries have many uses, such as

- Joint Bank of key terms
- A place to get to know you, where new students add their name and personal details
- Resource "useful tips" on best practices in a practical subject
- Sharing area for useful videos, images or audio files
- A resource for reviewing facts that need to be remembered

The External Tool Activity module allows students to interact with learning resources and activities on other websites. For example, an external tool can provide access to a new activity or educational materials from a publisher.

To create an external tool action, a tool provider that supports LTE (Learning Tool Compatibility) is required. The teacher can create an external tool action or use a tool configured by the site administrator. The actions of external tools differ from URL resources in several ways;

- External tools take into account the context, i.e. they have access to information about the user who launched the tool, such as institution, course and name.
- External tools support reading, updating, and deleting ratings associated with an action instance.
- External tool configurations create a trust relationship between your site and the tool provider, ensuring secure communication between them.

The teacher may allow the test to be repeated several times, while the questions will be shuffled or randomly selected from the question bank. A deadline may be set.

Each attempt is marked automatically, with the exception of essay questions, and the score is entered in the record book. The teacher can choose when and if the students will be shown hints, feedback and correct answers.

### Quizzes can be used

- As course exams
- As mini-tests for reading assignments or at the end of a topic
- Use questions from past exams as exam practice
- For immediate feedback on performance
- For self-assessment

The SCORM package is a set of files that are packaged according to an agreed standard for learning objects. The SCORM activity module allows you to download SCORM or AICC packages as a zip file and add them to the course.

Content is usually displayed on multiple pages with navigation between pages. There are various options for displaying content in a pop-up window, with a table of contents, with navigation buttons, etc. SCORM events usually include questions, grades for which are entered in the record book.

SCORM actions can be used

- To present multimedia content and animation
- As an evaluation tool

**Survey activities;** The module provides a number of proven survey tools that have been found useful for evaluating and stimulating learning in an online environment. A teacher can use them to collect data from their students that will help them learn about their class and reflect on their own teaching. Please note that these survey tools are pre-populated with questions. A teacher who wants to create their own survey should use the feedback module.

**Seminar activities;** the module allows you to collect, view and evaluate the work of students from colleagues. Students can send any digital content (files), such as text documents or spreadsheets, and can also enter text directly into the field using a text editor. Materials are evaluated using a multi-criteria assessment determined by the teacher. The process of peer assessment and understanding of the assessment form can be worked out in advance with the help of examples provided by the teacher together with a reference assessment. Students are given the opportunity to evaluate another work of their peers. Materials and reviewers can be anonymous if necessary. Students receive two marks for participating in the seminar -an assessment for their work and an assessment for evaluating the work of their peers. Both grades are entered in the record book.

**Book;** the module allows the teacher to create a multi-page resource in book format with chapters and subsections. The book can contain media files as well as text and is useful for displaying long passages of information that can be divided into sections.

A book can be used

To display reading materials for individual training modules

- As a guide for department employees
- As a demonstration portfolio of student works

**Wiki Activity;** the module allows participants to add a collection of web pages. A wiki can be collaborative when everyone can edit it, or individual when everyone has their own wiki that only they can edit. The history of the previous pages of each wiki page is saved, listing the changes made by each participant.

Wikis have many uses, such as

- For group lecture notes or study guides
- For members of the faculty to jointly plan the work schedule or the agenda of meetings
- For students who co-create an online book by creating content on a topic set by their teacher
- For sharing stories or creating poems where each participant writes a line or verse
- As a personal journal for study or revision (using a separate wiki)

**Activities by appointment:** Moodle allows the teacher to report tasks, collect papers, and provide grades and feedback. Students can send any digital content (files), such as text documents, spreadsheets, images, or audio and video clips. Alternatively, or in addition to the assignment, students may be required to enter text directly into a text editor. The assignment can also be used to remind students of "real" assignments that they need to complete offline, such as artwork, and therefore do not require any digital content. Students can submit their work individually or as part of a group. When viewing assignments, teachers can leave comments with feedback and upload files, such as marked student papers, documents with comments or oral audio recordings. Assignments can be graded using a numeric or custom scale or an advanced grading method such as a rubric. The final grades are entered in the record book.

### **Course Management:**

Moodle is a powerful and eclectic LMS in which administrators can fully control its functions. Students' activities can be stored in journals so that teachers can later check what students have done in Moodle, and teachers can fully control the deadlines and deadlines for completing tasks - quizzes, forums, chats, etc.

There are three different course formats – Weekly, Social and Thematic. The weekly format organizes the course by week, with assignments, discussion boards, tests, etc., all of them are placed in a weekly block. The social format is built around a forum that is good for announcements and discussions. The topic format organizes everything by topic, regardless of their duration. Our courses are held in a thematic format. They are used for e-learning by our students who use the resources by logging into the college's website <http://www.moodle.buxdpi.uz> and the selection of the E-learning link.

Course notes can include lecture slides, documents in any format (PDF, HTML, DOC, etc.), video, audio, animation, graphics, etc. In the content. Depending on the chosen format, we can organize the content topics or the schedule of classes. The content can have various subheadings, such as introduction, review, survey, illustrations, animation, discussions, etc. The content should be prepared in such a way as to ensure that there is something interesting for the weakest in the class and the brightest. The content should be visual and interactive, not heavily textual. The "add resource" link in each block provides a number of options for adding content. File upload, hyperlink to web pages in other places, and also provides for the creation of your own web pages. Course management can be changed by the teacher and the administrator. They have full control over all course settings, including the restriction of other teachers. This is followed by pictures .Figure 4



The e student news forum is an excellent communication forum by showing the user activity that is in each block. Forums are pretty universal means of interaction and learning, if used carefully. We can guarantee that students' comments and participation will be answered in the form of gratitude, appropriate counter comments, constructive suggestions, etc..

The possibility of recognizing participation in forums as part of an internal evaluation could also be considered in order to further increase interest. There are other communication mechanisms in Moodle, such as chat, mail, etc. We can set up a discussion board so that if someone posts a response to our post, we can receive an email. This can be used to remind us to check the system when something happens, instead of frequently polling the system for updates. Teachers can ask questions for discussion, encourage students to ask questions online and answer online. This not only serves as a repository of interaction that other students can refer to and use, but also promotes further interaction between students, clarifying and expanding the discussion. Asking questions for self-examination on the main sections of the course is also useful as feedback to students.

**The Real Scenario:**

Most higher education institutions in foreign countries offer LMS, a new paradigm of teaching learning using LMS. This is due to a lack of knowledge and awareness of the new model. It takes time and effort to implement this new teaching-learning system. A higher education institution can switch to open source software, since the cost of software is less, and the institute can control its future (Wheeler, D. A., 2003. Coppola and Christopher D. 2005). Moodle was chosen because it is one of the most commonly used LMS and allows you to create powerful, flexible and exciting online courses and allows you to gain experience. This system works on most web hosting providers and includes a constructivist (knowledge is generated through mediation and interaction with the environment) and a social constructive (learning in practice) approach to education (Perkins, M. and Pfaffman, J. 2006). So many reports have proven that Moodle works well and is used in a number of institutions and has a wide range of active courses available in many languages (Cole, J. and H. Foster. 2007. B. Williams and M. Dugiamas., 2005). For example, in our Bukhara State Medical Institute, we use the Moodle platform.

Effects of LMS Moodle:

**Improves Learning Skills:** Learning with LMS improves a student's learning skills. At LMS, a student is expected to take forums, chats, blogs, quizzes from the beginning of the semester, and as a

result, he will fully familiarize himself with the subject and be able to improve his learning skills (Nair.S. C. and Patil., R. 2012).

**Promotes Content Development:** It is necessary to have a presence on the Internet, as this will contribute to activities related to content development (Hamish.C et al., 2005).

**Increases Self-Efficacy:** Learning with LMS can help a student increase self-efficacy. Students individually must answer questions posted on blogs, on the forum and in the chat. Therefore, they think, act and learn better. As students interact in peer groups, their interest grows and they learn better (Martin et al., 2010).

**Improves self-discipline:** When a student studies in the Moodle e-learning environment, it helps to develop his self-discipline (Siirak.V., 2012).

**Improves Communication:** When students interact with teachers, colleagues through a blog, forum, chat, their communication skills improve.

### Conclusion:

The introduction of information and communication technologies in education with e-learning through Moodle makes it possible to increase the efficiency and effectiveness of education. This saves a lot of time, it is available to students 365 days a year. The facilitator will get more time to interact with students in the form of clarifying doubts, sharing knowledge to provide more information on the topic, etc. E-learning allows for better cooperation between students, teachers and students. Accessibility, usability and co-education of students can be improved, and higher motivation among students and teachers can be achieved through e-learning.

Teachers with more teaching experience can use <http://moodle.buxdpi.uz> in a constructivist way. Moodle facilitates student-centered learning anytime, anywhere. In addition, it simplifies the administration of courses and helps to reduce costs and training time.

Traditional classroom teaching is often conducted under the guidance of a teacher, and students can only contribute less if the class size is large. However, the online environment allows students to share their learning experiences as they achieve both planned and unintended learning outcomes. LMS allows the student to go beyond the space-time constraints in the teaching-learning process. We are approaching the age of independent learning, without which it is easier for students to navigate the flow of information; thus, it will be easier for them to survive.

Moodle can be preferred to create a simple, inexpensive learning management system that does not require many complex functions. Thanks to the open source code, Moodle can be used by higher education institutions for the educational process.

### Literature:

1. Andromahi Filippidi, Nikolaos Tselios, and Vassilis Komis. 2010. *Impact of Moodle usage practices on students' performance in the context of a blended learning environment*.
2. Ana Paula Lopes. 2014. *Teaching with Moodle in Higher Education. Proceedings of EDULEARN14 Conference 7th-9th July 2014, Barcelona, Spain*.
3. Ismatovna A. Y. Institutions of Higher Education: A Method of Using Moodle Electronic Platform for Independent Education of Students //EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION. – 2022. – T. 2. – №. 6. – C. 270-274..
4. Ismatovna A. Y. TODAY'S ROLE OF ELECTRON EDUCATION IN TEACHING THE SCIENCE OF INFORMATION TECHNOLOGY IN MEDICINE //Gospodarka i Innowacje. – 2022. – T. 22. – C. 518-522..
5. Ismatovna A. Y. The method of organizing the pedagogical process of application of Information Technology in the Independent Education of students in the science of Information Technology in medicine using information technologies //Texas Journal of Engineering and Technology. – 2022. – T. 7. – C. 70-73..



6. Асадова Ю. И. RESULTS OF THE ANALYSIS OF THE USE OF THE PLATFORM IN THE ORGANIZATION OF EDUCATION DURING THE PANDEMIC: Asadova Yulduz Ismatovna Lecturer of the Department of Biophysics and Information Technologies, Bukhara State Medical Institute //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 5..
7. Ismatovna A. Y. Passing the Traditional Lesson with the Help of Open Moodle Platforms. – 2021..
8. Ismatovna A. Y. Using the Moodle Platform in Extreme Cases //Central asian journal of mathematical theory and computer sciences. – 2021. – Т. 2. – №. 6. – С. 13-19..
9. Ismatovna A. Y. The Method of Using the Moodle Platform for the Organization of Teaching in Education (The Introduction of Distance Learning Technologies in the Educational Process) //International Journal of Innovative Analyses and Emerging Technology. – 2021. – Т. 1. – №. 4. – С. 30-46.
10. Ismatovna A. Y. Using the Moodle Platform for Organizing Training in Education (Introduction of Distance Learning Technologies in the Educational Process) //International Journal of Innovative Analyses and Emerging Technology. – 2021. – Т. 1. – №. 4. – С. 63-67..
11. Ismatovna A. Y. Using the Moodle Platform for Organizing Training in Education // " ONLINE-CONFERENCES" PLATFORM. – 2021. – С. 15-18.
12. Асадова Ю. 5. Ю. Асадова COVID-19 pandemiyasi davrida o'qitishni tashkil qilish uchun moodle platformasidan foydalanish: Yu. Asadova Вухоро davlat tibbiyot instituti //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 1..
13. Юлдуз А. ИСПОЛЬЗОВАНИЕ СОВРЕМЕННОЙ ПЛАТФОРМЫ MOODLE ДЛЯ САМОСТОЯТЕЛЬНОГО ОБУЧЕНИЯ СТУДЕНТОВ НА ТРАДИЦИОННЫХ УЧЕБНЫХ ЗАНЯТИЯХ //ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz). – 2021. – Т. 4. – №. 4..
14. Asadova Yulduz Ismatovna. Institutions of Higher Education: A Method of Using Moodle Electronic Platform for Independent Education of Students //’ European Journal of Innovation in Nonformal Education’ (EJINE) Volume 2 | Issue 6 | ISSN: 2795-8612 -2022.-p.270-272
15. Юлдуз Асадова. Формирование эффективной системы методов самостоятельного обучения студентов на базе платформы - Moodle.// ‘Pedagogik mahorat’ №-2 – 2022-с,10-15.
16. Асадова Ю. The use of Moodle platform in the traditional transition of Information Technology Science in medicine to foreign students accepted on the basis of MBBS program at Bukhara State Medical Institute //Общество и инновации. – 2021. – Т. 2. – №. 7/S. – С. 35-43..
17. Асадова Ю. 5. Ю. Асадова COVID-19 pandemiyasi davrida o'qitishni tashkil qilish uchun moodle platformasidan foydalanish: Yu. Asadova Вухоро davlat tibbiyot instituti //Образование и инновационные исследования международный научно-методический журнал. – 2021. – №. 1.).
18. Sayidova, Nazokat, Yulduz ASADOVA, and Mehriniso ABDULLAYEVA. "PHOTOSHOP DASTURIDA YARATILADIGAN ELEKTRON QO „LLANMALARNING AHAMIYATI." PEDAGOGIK MAHORAT (2021): 78.
19. Brant Knutzen and David M Kennedy. 2008. Can learning to use moodle alter teachers’ approaches to teaching? In Joseph Luca and Edgar R. Weippl, editors, *Proceedings of World Conference on EducationalMultimedia, Hypermedia and Telecommunications 2008*, pages 3809–3818, Vienna, Austria.
20. Bach, Sh., Haynes, Ph. & Smith, J.L. 2007. *Online Learning and Teaching in Higher Education*. New York. Open University Press.
21. Bastiaens, Th. & Martens, R. 2000. Conditions for webbased learning with real events.

*Instructional and cognitive impacts of web-based education (ed. B. Abbey), pp. 1–32. Idea Group Publishing, Hershey/London.*

22. Brandle, K. 2005. Are you ready to “MOODLE”? [http://ilt.msu.edu/vol9num2/review1/.Language Learning & Technology](http://ilt.msu.edu/vol9num2/review1/.Language%20Learning%20&%20Technology).
23. Branzburg, J. 2005. How to: Use the Moodle Course Management System. *Technology & Learning*, 26(1), 40.
24. B. Williams and M. Dougiamas 2005. Moodle for Teachers, *Trainers and Administrators of Remote-Learner.net., Moodle.org*.
25. Cole, J. 2005. Using Moodle: Teaching with the Popular Open Source Course Management System. *O'REILLY Community Press*.
26. Coppola, Christopher D. 2005. Will open source unlock the potential of e-learning?, *Campus Technology Website*: <http://www.campus-technology.com/print.asp?ID=10299>.
27. Dalgarno, B. 1998. Choosing learner activities for specific learning outcomes: a tool for constructivist computer assisted learning design. Planning for Progress, Partnership and Profit. Proceedings EdTech'98 (eds C. McBeath & R. Atkinson). *Australian Society for Educational Technology, Perth*.