RESULTS OF THE ANALYSIS OF THE USE OF THE PLATFORM IN THE ORGANIZATION OF EDUCATION DURING THE PANDEMIC

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Abstract. *This article reveals the effectiveness of the hybrid educational environment by analyzing the relationship between student characteristics and learning tools for the learning management system (LMS) is a widely used and recognized around the world complex learning methods, especially the Moodle platform are specified positive aspects and details of the Moodle platform, unlike traditional alternatives. In addition, an analysis of the use of this platform during the COVID-19 pandemic. We describe the implementation and use of e-learning platforms and present our experience of using such platforms on the example of our faculty. We analyze the scientific activities of students who also use the e-learning platform, where they can get access to course resources and homework. In addition, they must submit their homework through the platform, meet strict deadlines and use feedback from teachers to improve the quality of their homework. This article presents the results of a scientific study on the use of the Moodle electronic platform when passing traditional training in the system of full-time method of education.*

Keywords: *LMS, Moodle platform, questionnaire survey, COVID-19 pandemic, distance learning.*

РЕЗУЛЬТАТЫ АНАЛИЗА ИСПОЛЬЗОВАНИЯ ПЛАТФОРМЫ В ОРГАНИЗАЦИИ ОБРАЗОВАНИЯ ВО ВРЕМЯ ПАНДЕМИИ

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Аннотация. *В данной статье раскрывается эффективность смешанной образовательной среды путем анализа взаимосвязи между характеристиками студента и обучения, также механизмы системы управления обучением (LMS) – широко применяемого и признанного во всём мире комплекса методов обучения, особенно платформы Moodle, указываются положительные стороны и детали платформы Moodle, отличие от традиционных альтернатив. Кроме того анализ применения данной платформы в период пандемии COVID-19.*

Ключевые слова: *LMS, платформа Moodle, анкетирование, пандемия COVID-19, дистанционное обучение.*

PANDEMIYA DAVRIDA TA'LIMNI TASHKIL ETISHDA PLATFORMADAN FOYDALANISHNI TAHLIL QILISH NATIJALARI

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Buxoro davlat tibbiyot instituti, biofizika va axborot texnologiyalari kafedrasi o'qituvchisi

Аннотация. Ushbu maqolada talaba xususiyatlari va o'qitish o'rtasidagi munosabatlarni tahlil qilish orqali aralash ta'lim muhitining samaradorligi, shuningdek, ta'limni boshqarish tizimi (LMS) mexanizmlari – keng tarqalgan bo'lib qo'llaniladigan va tan olingan ta'lim usullari majmuasi, ayniqsa Moodle platformasi Moodle platformasining ijobiy tomonlari va tafsilotlari, an'anaviy alternativlardan farqli o'laroq, COVID-19 pandemiyasi davrida ushbu platformadan foydalanish tahlil qilingan.

Kalit so'zlar: LMS, Moodle platformasi, so'rovnomalar, COVID-19 pandemiyasi, masofaviy ta'lim.

Relevance. The COVID-19 pandemic shocked the whole world and human life took on a new form. Clinical and epidemiological characteristics of the new coronavirus infection was studied in [1] and nutritional requirements and the use of dietary supplements are given in [2]. The training system was organized in a new, remote format. During the quarantine period due to the COVID-19 pandemic, the Bukhara State Medical Institute implemented a distance learning system based on the Moodle platform, which is one of the training methods of the learning management system (LMS) – a widely used and internationally recognized set of training methods. Using the MOODLE platform to organize training during the Covid-19 pandemic also studied in [3, 4].

Learning Management Systems (LMS) are used by educational institutions around the world to organize critical course information and provide hybrid or fully online courses with all the components of a traditional face-to-face class, including assignments, classroom resources, and the ability for students and teachers to collaborate within a centralized digital learning solution [5, 6].

MOODLE (Modular Object-Oriented Dynamic Learning Environment) is the world's most widely used Learning Management System (LMS) for delivering learning through a dedicated learning platform, providing millions of educators with flexible, open-source technologies [7, 8].

The name Moodle is an abbreviation for a modular object-oriented dynamic learning environment. It offers some important benefits that can lead to improved learning outcomes for students [9, 10]. There are more than

100,000 implementations of this LMS worldwide, and more than 160 million students use it.

Some of the advantages of this electronic solution are:

-access your training materials anytime, anywhere. Because Moodle is a web-based solution that also offers a robust Moodle mobile app, students can access course materials from anywhere, anytime. This means that they don't need to be in the classroom or have physical materials on hand. They can progress in their training and participate in their courses when it is convenient and appropriate for their busy schedule;

-consistent content delivery and feedback. With Moodle, educators have more ways to ensure each student has access to all the types of content they need to explore, including various media plugin options and forums that encourage collaboration. In addition, instructors have comprehensive tools for feedback. For example, they can respond to a student's work with a simple categorization tool, evaluating the work against pre-set criteria;

- save time for teachers. Moodle is easily integrated with other tools and systems, the electronic journal of the institute, attendance tools, test books and much more. This integration means that teachers can spend less time registering and managing their students and more time learning.;

- an organized e-learning environment. As already mentioned, since Moodle is able to seamlessly integrate between existing systems, an educational institution can effectively manage training from the center. This helps keep all administrative and training activities more organized, organized, and allows you to store and track this holistic information in one place;

- the possibility of applying mixed approaches to learning. Training has long since faded into the background. However, using Moodle, you can use a mixed learning approach to include different learning materials suitable for specific goals, and different learning styles to effectively evaluate multiple types of formal and non-formal learning. Using solutions such as virtual classrooms, gamification, and other techniques can help create more dynamic courses and positively impact student engagement and overall success. [11, 12].

Higher education institutions need a learning platform that will allow them to ensure the success of their students and provide their teachers with a flexible solution that can be adapted to the teaching style of each teacher [13, 14]. Moodle, the most widely used and advanced learning management system in the world, can help solve a number of typical learning challenges faced by universities, creating sustainable learning programs that will ultimately improve learning outcomes..

These features of the Moodle platform are:

- workshops of the virtual laboratories. Virtual laboratories is an MHRD project, which is a repository of about 1,400 simulation experiments used by medical institutes, and an excellent portal that complements the experiments conducted by students over 6 years of study. They cover various areas of medicine [15, 16]. The use of these labs is free and can be done from anywhere, anytime on laptops, desktops, or smart phones..

- short lecture programs: These are 1-2-hour lecture programs on relevant medical and other topics of relevance and importance to professionals. They are conducted jointly with other sections of the society and the Affinity Groups of the section, independently as independent programs. These programs serve as a helper for practicing professionals and for curious students.

In addition to its incredible flexibility, robust functionality, and promising scalability, Moodle is a well-supported open source software. In addition, Moodle's open codebase allows for multiple hosting options, which can be useful for maximizing the functionality and efficiency of digital courses. Institutions have the option to host their own Moodle site if they have the in-house experience and bandwidth [17-20].

Obviously, there are many good reasons to choose Moodle as a learning management system. Therefore, it was interesting how this platform helps to improve the results of training at the Bukhara State Medical Institute, which was the purpose of our study.

Materials and methods of research. Pursuant to Order No. 233 of the Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan dated March 27, 2020, in order to ensure the introduction of distance education in higher educational institutions, the Bukhara State Medical Institute also issued Order 249/1 of 30.03.20, according to which the Institute provided for the organization of independent distance learning of students from April 1, 2020 and introduced e-learning. During this short period, based on the general conditions, teachers began to conduct classes through the Telegram messenger, Zoom, and e-magazine platforms until the end of the school year. Of course, it was difficult to organize an electronic system of the educational process in this unexpectedly short period. In order to overcome these difficulties, since June 2020, the Bukhara State Medical Institute has started implementing the electronic Moodle platform, where all teachers provided materials for lectures, practical classes, seminars in the form of video files, presentations, text, tests, glossary, etc., in accordance with the curriculum and program. Since September 2020, all subjects taught at the Bukhara State Medical Institute have been organized on the Moodle platform.

In order to find out the effectiveness of the Moodle platform used for distance education for teaching the subject of information technology in

medicine and whether it is accessible to students, a survey was conducted among students, which was attended by 300 students from various faculties of the Bukhara State Medical Institute. The questionnaire contained 5 main questions:

What problems do you face when learning the training material on your own?

What resources, other than the Moodle platform, do you use to strengthen your knowledge?

3. Can you master the training program on the Moodle platform yourself?

4. You want to use the distance learning system (Moodle platform) even in the era of traditional education?

5. Which of the programs that you used for distance learning during the pandemic was convenient for you?

Results of the study

When statistical processing of the results obtained, it turned out that about 54% of students (Figure 1) have mastered enough for distance learning, and partially master the complex material 35.50% is 1.5 times less, while those who can hardly master it are about 10.50%.

Figure 1. What problems do you face when learning the training material on your own??

In addition, in addition to the Moodle platform, students to strengthen their knowledge use for from the links provided by the teacher (Figure 2) prefer-31.25%, and about 69.75% of students use from search engines (e-books, You Tube, video tutorials).
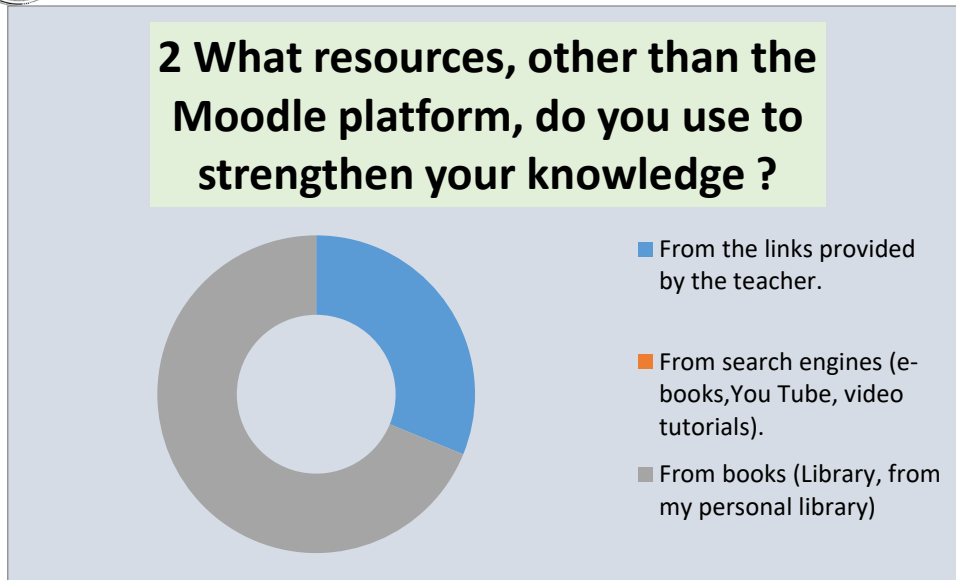
Figure 2. What resources, other than the Moodle platform, do you use to strengthen your knowledge?

Also, when asked about the independent development of the curriculum on the Moodle platform, about 50% of students answered « yes « (Figure 3), 18.33% learn through video material, and 13% through presentations, or 1.36% of students can master the educational material in all types. Yes (I can study the data in all materials) 17,31%

Figure 3. Can you master the training program on the Moodle platform yourself?

In addition, to the question «Do you want to use the distance learning system (Moodle platform) even in the era of traditional education? «(Figure 4), 31.25% of students answered» yes, in full», and 56.25% of students believe that it is good enough; however, 12.5% do not want to use distance
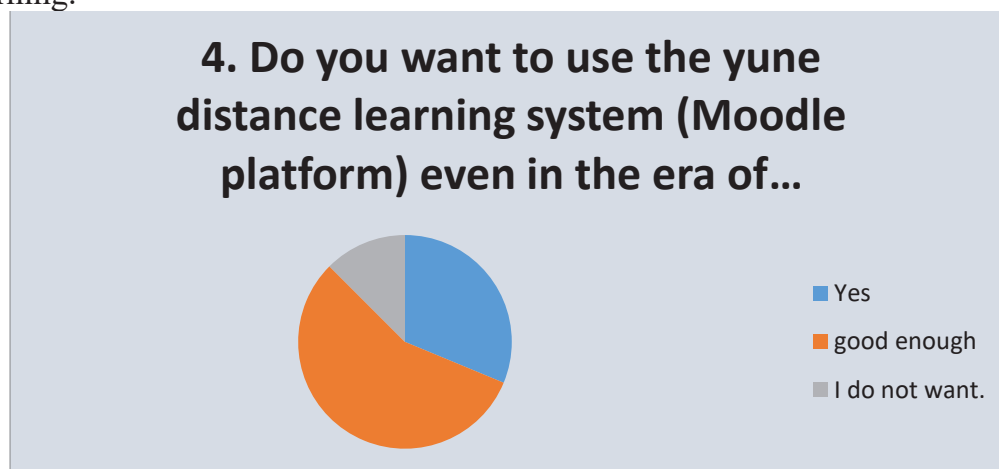
learning.

4. Do you want to use the yune distance learning system (Moodle platform) even in the era of…

■ Yes
■ good enough
■ I do not want.

Figure 4. How do you assess the independent development of distance learning material?

5Which of the programs that you used for distance learning during the pandemic was convenient for you?

■ The Moodle platform.
■ Zoom platform.
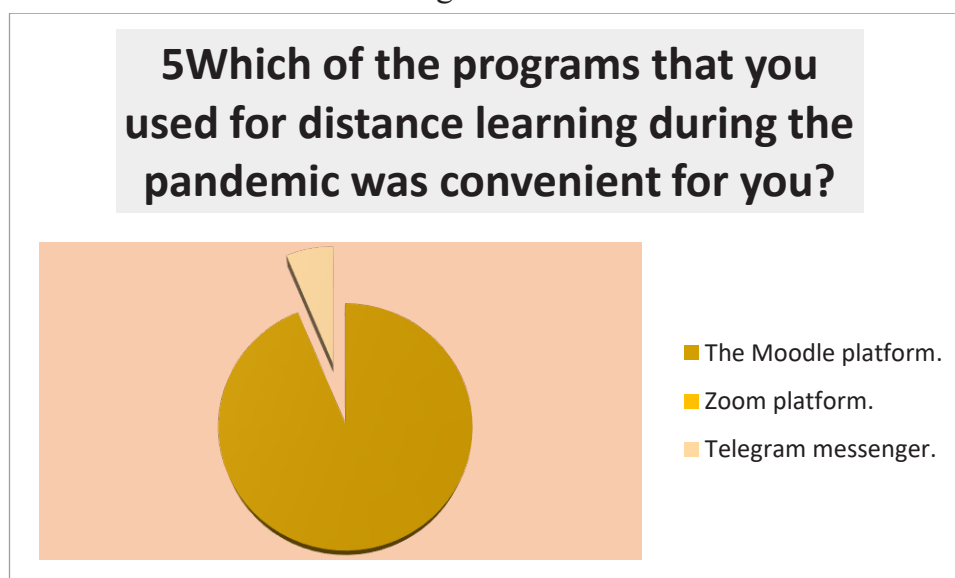■ Telegram messenger.

Figure 5. .Which of the programs that you used for distance learning during the pandemic was convenient for you?

When asked which of the programs you used for distance learning during the pandemic was convenient for you (Figure 5), about 93.75% of students answered «in the Moodle platform», and 6.25% of students are comfortable with the Telegram Messenger.

This study was conducted in the context of the introduction of innovative pedagogy, involving the use of a learning management system-MOODLE, for the first time in teaching and training at the Bukhara State Medical Institute, due to the epidemiological situation in the republic. The studied characteristics of students for the effectiveness of blended learning include self-regulation, computer competence, workload management, attitude to distance learning, social and family support. Moodle LMS is provided free

of charge as open source software, so anyone can adapt, extend, or modify the platform without any license fees..

Conclusions. During the quarantine period due to the COVID-19 pandemic at the Bukhara State Medical Institute, the implemented distance learning system gave its results. The effectiveness of blended learning can depend on many other factors, including student characteristics, design features, and learning outcomes. This program not only complemented the students ' training at the Bukhara State Medical Institute, but also helped them learn how to apply the knowledge gained, gave them the opportunity to create tangible applications or products, such as blogs, web pages, web applications, and so on, which will help students become more able-bodied and ready to do their job well.

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