



ВЕТЕРИНАРНІ НАУКИ

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USE OF THE MOODLE LEARNING PLATFORM BY STUDENTS-VETERINARIANS STUDYING OPERATIVE SURGERY

Abstract

In today's world, there are hundreds of electronic educational systems that help teachers convey their knowledge to students and facilitate their learning. The most famous and popular e-learning platform is Moodle. It is an open-access program that allows anyone who wishes to take advantage of its educational opportunities to join.

The number of visitors to Moodle has significantly increased in recent years, especially due to the transition of a large number of students to distance education.

According to current data, Moodle is being used as a platform for various forms of distance learning. Its utilization at universities enhances students' interest in studying academic disciplines, improves their success and satisfaction with learning, and contributes to resolving issues of academic integrity, ethics, and safety.

Research was conducted with a group of 40 students from the Faculty of Veterinary Medicine and Technology in Livestock. Surveys, observations, and questionnaires were used to gather data on the use of the Moodle educational platform by students studying operative surgery.

The research revealed that all students studying operative surgery utilize the Moodle educational platform.

Regarding students' attitudes towards Moodle, data shows that 70% of students perceive the platform as a useful learning tool, while 30% view it merely as a means of earning points. The study of students' frequency of visits to the educational platform indicated that, even in the traditional form of education, 70% of students regularly use Moodle. Additionally, 30% of students only engage with Moodle towards the end of the semester. Furthermore, 80% of students visit Moodle after class to review the material, whereas 20% access the educational platform before class for preliminary familiarization with the topic.

The research also found that, in addition to lectures, laboratory exercises, and tests, all students utilize videos and presentations available on the Moodle platform. However, 30% of students did not familiarize themselves with the course abstract and the work program of the discipline, 40% do not use the recommended sources, and only 10% utilize the glossary.

It was established that all students prefer the traditional classroom format for lecture sessions, with the option to access lecture materials on the Moodle platform.

Key words: Moodle, Learning management systems, Education, e-learning, Veterinary medicine, Operative surgery.

Introduction. In Ukraine, alongside traditional education, an electronic format is legally regulated and used, as stated in the Regulation on distance learning approved by the Order of the Ministry of Education and Science of Ukraine No. 466 dated 04/25/2013 [11].

E-learning has experienced significant growth, particularly since 2020 with the onset of the COVID-19 pandemic, which has limited face-to-face learning opportunities for educational institutions worldwide [9]. Institutions have had to adapt to constraints that affected conventional forms of learning, assessment, research, and scientific discourse [3].

The information educational environment relies on electronic learning platforms known as Learning Management Systems (LMS), which facilitate the interaction between traditional learning methods and digital learning resources, providing students with personalized electronic learning opportunities [1]. Among LMSs, Moodle (Modular Object-Oriented Dynamic Learning Environment) is the most popular, according to a recent systematic review of LMS trends [2].

As of January 2023, Moodle is utilized by over 331 million users worldwide, with 165,000 active sites registered in 243 countries, encompassing 42 million courses [11]. Martin Dougiama from Australia is the main developer of the system, with numerous other programmers contributing to its improvement [8].

This open-source e-learning system can be downloaded from the official Moodle website, moodle.org. To access the program online, Moodle must be installed on web hosting, which is typically registered or purchased for an active period. Additionally, there are various Moodle service providers that offer both free and paid services [5].

Current data suggests that Moodle is primarily used in university academic disciplines and effectively enhances academic performance, learning satisfaction, and student engagement. Moodle serves as a platform for adaptive and collaborative learning, as well as for online assessment. Its usage is rapidly evolving to address issues of academic integrity, ethics, and security, improve speed and navigation, and incorporate artificial intelligence [10].

While the use of the educational platform Moodle in veterinary education is known [4, 10], there is limited information available regarding its impact on the quality of training for veterinary surgeons. Conversely, there is data on the positive impact of educational videos hosted on YouTube [6] and social networks [7] on the quality of veterinary surgeon training.

The purpose of the conducted research was to establish the value of the Moodle educational platform in the study of surgical surgery by veterinary students. Task: to determine the impact of the use of the Moodle platform in the educational process; to investigate in which study periods students most often visit the Moodle educational platform; to determine which elements of the Moodle course are preferred by students studying operative surgery; to provide a comparative assessment of students' attitude to elements of traditional classroom learning with those available on the Moodle platform.

Materials and methods. Research work was carried out in the spring of 2023 on a group of 40 students of the III and II short-term courses of the Faculty of Veterinary Medicine and Technology in Livestock of the Higher Education Institution "Podilskyi State University". The research involved an analysis of information sources on the use of the Moodle educational platform in higher education. Surveys, observations, and questionnaires were utilized to gather data on the use of the Moodle platform by students studying operative surgery.

Results and discussion. The findings of the study revealed that all surveyed students from the Faculty of Veterinary Medicine and Technology in Livestock utilized the Moodle educational platform. This outcome was expected, considering the long period of distance learning due to the pandemic and martial law. However, the data obtained indicated that students had different attitudes towards the educational platform. The majority of students used Moodle to enhance their understanding of the discipline. However, for some users, Moodle was seen as a mandatory component of the educational process that could not be avoided.

Figure 1 presents data on the purposes for which students use the Moodle platform.

According to the data we obtained, it is evident that if it were possible to pass a course credit without scoring points in Moodle, 30% of respondents would choose not to use the platform. This result can be attributed more to the students' attitude towards surgical work rather than the educational platform itself. Previous studies have demonstrated that some students do not envision themselves as future surgeons [11]. Consequently, their interest in studying the discipline is primarily driven by the curriculum requirements.

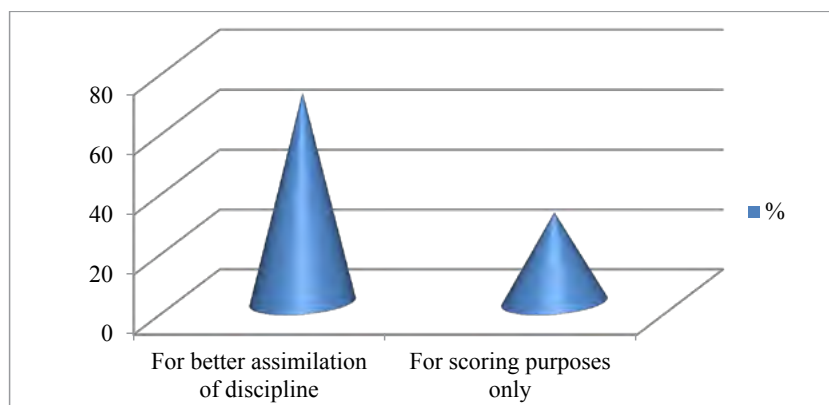


Fig. 1. Students' use of the Moodle platform

We conducted a study on the frequency of students' use of the Moodle platform for studying operative surgery. The survey results are depicted in Figure 2.

As indicated by the data we collected, even with traditional forms of education, the majority of students regularly utilize Moodle, particularly after class to study the material. However, nearly one-third of respondents stated that they

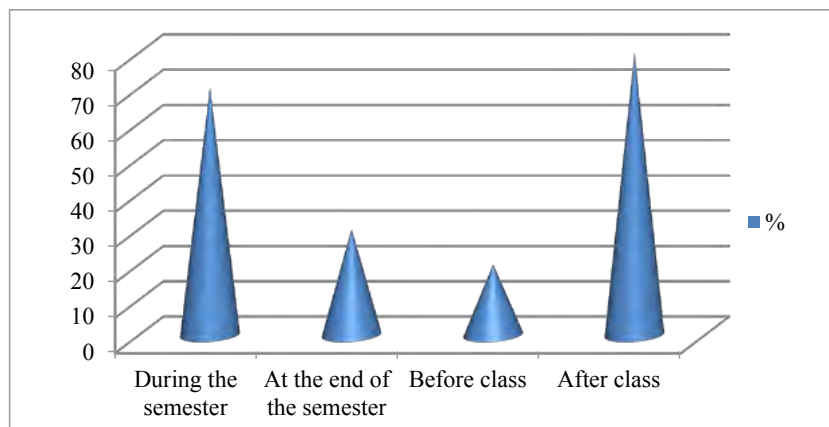


Fig. 2. Frequency of using the Moodle platform

only engage with Moodle towards the end of the semester. Additionally, one-fifth of participants access Moodle prior to class to familiarize themselves with the topic.

It is evident that the frequency of students' visits to the Moodle educational platform is primarily influenced by their attitude towards the academic discipline. Those who are highly interested in the subject proactively explore the topic before the classroom session, while those who do not plan to pursue a career in surgery solely access Moodle prior to the session.

Since the training course on the Moodle platform encompasses various components, our research aimed to determine students' attitudes towards these individual components.

As shown in Figure 3, it was discovered that an equal number of students utilize all components of the course and those who only engage with components involving the calculation of points. Additionally, the students' interest in the lesson topic was found to be significant.

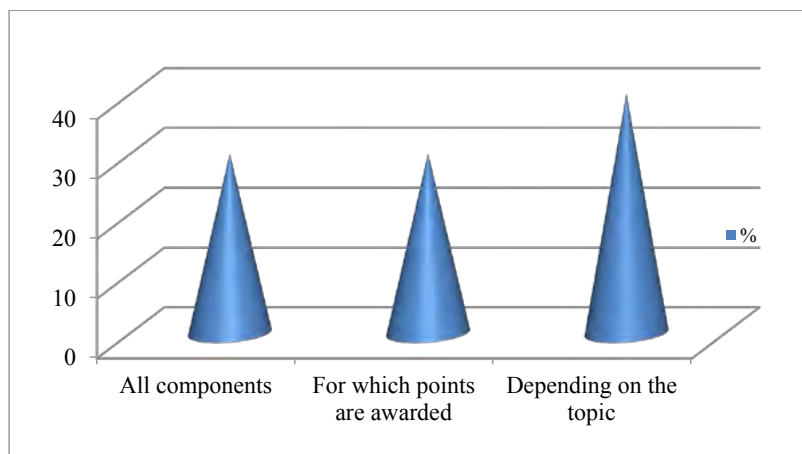


Fig. 3. Using Moodle components

Based on our survey results, it was observed that all students attend lectures, laboratory classes, and respond to test questions, which are mandatory components of the Moodle training course that offer point allocations. As for the supplementary components, 100% of students utilize videos and presentations.

There are publications highlighting the positive impact of surgical videos on students studying operative surgery [11]. Other authors have reported the primary use of presentations from the Moodle platform by veterinary students [9].

According to the data we received (Fig. 4), almost a third of students did not familiarize themselves with the course abstract and the work program of the discipline, a fourth of the respondents do not use the recommended sources, and only one in ten uses the glossary.

This attitude of students to the course components can be explained by the habit formed by traditional education, when only what is written in the lecture or written in the corresponding paragraph of the textbook is taught. At the same time, the conscientiousness of the student and his motivation to study are also important.

Because the students who participated in the study receive a blended learning experience, they can evaluate both traditional and distance e-learning delivered through the Moodle learning platform. In connection with the specifics of conducting laboratory classes, which require mandatory work with animals, we inquired about the attitude of students

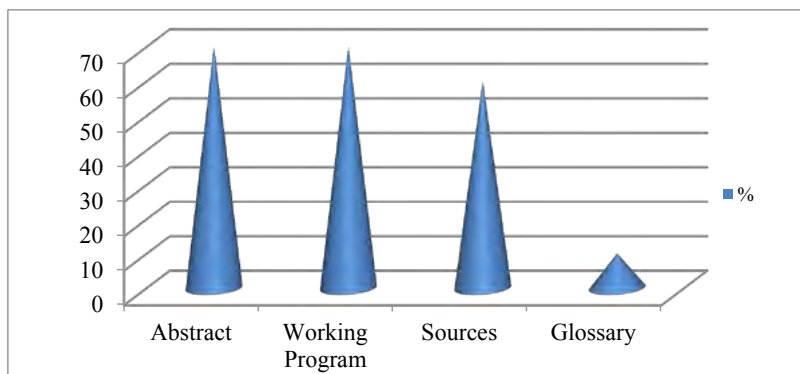


Fig. 4. Using the components of the training course

to various forms of lectures. As a result, data were obtained, according to which 60% of students prefer traditional classroom classes (Fig. 5).

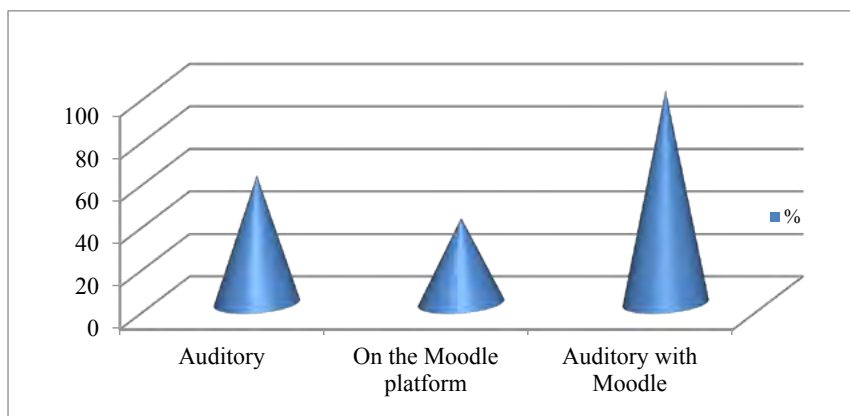


Fig. 5. Attitude of students to the lecture format

This result can obviously be explained by the desire of most students to listen to the teacher's explanation, with the opportunity to ask questions and get additional clarifications.

Others are satisfied with the possibility of accessing the lecture material on an electronic platform. At the same time, it is important to familiarize yourself with the lecture not according to the schedule, but at a time convenient for the student.

However, all students agree that the best option is to listen to the lecture with the possibility of accessing it on the Moodle platform.

Conclusions:

1. The use of the Moodle educational platform is widespread among students studying operative surgery, as all students in the study utilize it.

2. The majority of students (70%) perceive the Moodle platform as a valuable learning tool, while the remaining 30% primarily view it as a means of earning points.

3. Even in traditional forms of education, a significant proportion of students (70%) regularly engage with Moodle, with 30% utilizing it towards the end of the semester. The majority of students (80%) access Moodle after class to study the material, while 20% use it before class for preliminary familiarization with the topic.

4. In addition to lectures, laboratory exercises, and tests, students make use of videos and presentations available on the Moodle platform. However, a notable portion of students (30%) did not familiarize themselves with the course abstract and work program, and a significant proportion (40%) do not utilize the recommended sources. Only a small percentage (10%) of students utilize the glossary.

5. Despite the availability of online resources, all students still prefer the traditional classroom lecture format, with the option to access lecture materials on the Moodle platform.

Prospects for further research. The work conducted opens opportunities for researching the impact of using Moodle on the quality of training of veterinary surgeons. The obtained results will contribute to the organization of more effective use of the electronic platform in the educational process at the veterinary faculty of the university.

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ВИКОРИСТАННЯ НАВЧАЛЬНОЇ ПЛАТФОРМИ MOODLE СТУДЕНТАМИ-ВЕТЕРИНАРАМИ, ЩО ВИВЧАЮТЬ ОПЕРАТИВНУ ХІРУРГІЮ

Анотація

У сучасному світі функціонують сотні електронних освітніх систем, які допомагають викладачам донести свої знання до студентів, а здобувачам освіти краще їх засвоїти. Найвідомішою і найпопулярнішою електронною навчальною платформою є Moodle. Це програма з відкритим доступом, до якої можуть долучатися всі бажаючі скористатися її освітніми можливостями.

Кількість відвідувачів Moodle особливо зросла впродовж останніх років у зв'язку з переходом значної частини студентів на дистанційну форму навчання.

Згідно із сучасними даними, Moodle використовується як платформа для різних форм дистанційного навчання. Використання Moodle в університеті підвищує інтерес студентів до вивчення навчальних дисциплін, підвищує успішність та задоволення від навчання, сприяє вирішенню питань академічної доброчесності, етики та безпеки.

Дослідницька робота проводилася з групою студентів факультету ветеринарної медицини і технологій у тваринництві у кількості 40 осіб. З метою отримання даних стосовно використання навчальної платформи Moodle студентами, що вивчають оперативну хірургію, застосовувалися такі методи, як опитування, спостереження, анкетування.

У ході досліджень було встановлено, що всі студенти, які вивчають оперативну хірургію, використовують навчальну платформу Moodle.

Стосовно ставлення студентів до Moodle були отримані дані, згідно з якими 70% студентів сприймають платформу Moodle як корисний інструмент навчання, 30% – як засіб для набирання балів.

Вивчення періодичності відвідування студентами навчальної платформи показало, що навіть за традиційної форми навчання 70% студентів регулярно використовує Moodle, 30% працює з Moodle лише в кінці семестру, 80% студентів відвідує Moodle після заняття з метою вивчення матеріалу, 20% заходить на навчальну платформу перед заняттям для попереднього ознайомлення з темою.

Було з'ясовано, що, окрім лекцій, лабораторних занять і тестів з навчального курсу, на платформі Moodle всі студенти використовують відео і презентації. 30% студентів не ознайомлювалися з анотацією курсу та робочою програмою дисципліни, 40% не використовує рекомендовані джерела і лише 10% користується глосарієм.

Встановлено, що всі студенти віддають перевагу традиційному аудиторному формату лекційного заняття з можливістю доступу до матеріалу лекції на платформі Moodle.

Ключові слова: Moodle, системи управління навчанням, освіта, електронне навчання, ветеринарна медицина, оперативна хірургія.