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APPLICATION OF E-LEARNING AT THE UNIVERSITY OF EDUCONS

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Abstract: This study examines the application of e-learning at the University of Educons, particularly focusing on the adoption of the Moodle platform and the development of a proprietary platform in response to the increased demand for online education during the COVID-19 pandemic. The research analyzes the effectiveness of these platforms in achieving the university's strategic goals, including enhancing staff training, providing access to modern scientific trends, introducing a transparent distance education system, and improving the overall quality of education. The study explores student perceptions and experiences with online learning, highlighting the positive reactions and the platforms' seamless integration into the teaching process. Furthermore, the research discusses the benefits of e-learning in terms of cost savings, flexibility, and accessibility for students who may not be able to participate in traditional classroom settings. The findings contribute to a broader understanding of the role and impact of e-learning in higher education, particularly in adapting to unforeseen circumstances and evolving educational needs. The study concludes by emphasizing the long-term potential of e-learning as a valuable investment for educational institutions and students alike.

Keywords: e-learning, online education, Moodle, higher education, University of Educons

Introduction

The use of online tools for educational purposes is by no means a novel concept (Petrović, 2020; Tepšić et al., 2021); however, the situation caused by the COVID-19 pandemic has significantly increased their utilization. Online education platforms have become not only an option, but a necessity for educational institutions that have had to adapt to the new circumstances. In this context, the University of Educons has implemented a strategic approach to the application of e-learning, with the goal of enhancing the overall quality of education and ensuring continued access to learning opportunities for its students (Pokhrel & Chhetri, 2021; Manjeese, 2022).

The application and wide availability of information and communication technologies has caused, among other things, significant changes in the possibilities of teaching and acquiring knowledge (Petrović, 2016; Tepšić et al., 2021). Many universities in the world, even before the pandemic, to equalize the level of knowledge given to students, instead of the established practice by which professors traveled to other faculties, introduced the practice of exchanging ideas online (Misiejuk et al., 2023) Thus, instead of people, ideas actually traveled through ICT (Petrović, 2011). E-teaching, according to Petrović, can be conducted in several ways: in the classroom, where teaching is supported by IC technologies and where students work with digital materials, then, completely online over the Internet, and finally as a hybrid model that represents a combination of traditional teaching and web-based technology (Petrović, 2011).

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In Europe, significant initiatives for the development of online teaching have been implemented through the "European Distance Education Network" (EDEN) and the "European Association of Distance Education Teaching Universities". More than a decade ago, the Open University of the United Kingdom adopted standards for distance education, modelled on educational institutions in Spain, Germany, the Netherlands and Portugal. The European Commission in its documents (e-learning Action Plan 2004-2006) strongly supported the development of distance learning, i.e. e-education in all EU Member States from the very beginning (Pokorni, 2009).

The definitions of online teaching, i.e. distance learning and learning, are not uniform and have changed over time, often depending on the development of technology with which they are implemented (Singh & Thurman, 2019). According to Tepšić and associates, "distance learning is a very democratic form of education. This way of learning allows you to learn according to your own dynamics and individual consultations via e-mail, chat services and electronic conferences. By using these technologies, users can participate in classes from any geographic location (Tepšić et al., 2015).

The University of Educons has embraced the integration of e-learning tools, such as the Moodle platform, to facilitate the delivery of course content, enable interactive communication between students and faculty, and provide a comprehensive system for managing the educational process (Bassou, 2022) (Tawalbeh & Al-husban, 2023). Additionally, the university has developed its own proprietary platform to address specific needs and optimize the online learning experience for its students (Ahmed & Opoku, 2021; Quesada et al., 2023). The paper focuses on the implementation and strategic goals of e-learning at Educons University. It discusses the university's motivations for adopting e-learning, the intended benefits, and the various platforms and technologies used.

The use of these platforms has been a largely positive experience. We have quickly integrated them into the teaching process, and there have been no major issues with the applications. Furthermore, students have responded favorably to this instructional method.

Literature review

Concept and characteristics of distance education

According to Milunović and Ćurčić, distance education is a system and process that connects users with geographically dispersed educational resources (Milunović & Ćurčić, 2012). It is a form of education where information technologies serve as an intermediary in the interactions between instructors and students who are not co-located at a fixed time. Distance learning according to Tepšić et al. (2015) implies that the main carrier of communication between the lecturer and the student is separation (at different times and in different places). It must include two-way communication between the lecturer and the student that aims to facilitate and support the education process. Technology is used as an intermediary in the necessary two-way communication" (Tepšić et al., 2015). Thus, "modern information and communication technologies (Internet, hypermedia systems, computer networks, digitization, etc.) have made distance learning the primary concept in the acquisition of open knowledge" (Tepšić et al., 2015*).* While the concept of distance learning offers numerous advantages and is of great importance for modern society, it is important to note that "despite all the advantages, e-education has some disadvantages (Postolov et al., 2017). First, students must have a certain level of computer literacy. Students may also experience a lack of face-to-face interaction with the teacher. Grading student work can be problematic because professors cannot know who really solved the tasks, i.e. answered the questions" (Petrović, 2009).

The advantages of distance learning compared to the classic, traditional approach include temporal and spatial flexibility. Students can learn independently of time and location, making education accessible to those who may be unable to physically attend the university due to geographical distance or health concerns. Additionally, the interaction between students and professors via computer is often more direct and intense than in-person lectures, allowing students to ask questions more freely without fear of the professor's authority. Furthermore, the use of interactive learning content enables the presentation and adaptation of course material to students' needs (Petrovic, Herceg, 2011).

In addition to the above advantages, distance learning can also be supported by "the possibility of attending prestigious programs at quality institutions, held by well-known experts, without changing the place of residence, then, acquiring additional skills and knowledge about the use of modern information technology, then, developing independence in searching for sources of information, etc." According to Zenović et al., the distance education system includes certain components. These components are presented in the following table (Milunović & Ćurčić 2012)

Table 1 - Components of distance education

Components	Clarification
Mission	It defines the role of the distance education system within the context of national policy.
Lectures and Curriculum	Define the profile of a system or institution. They should be related to the mission and defined needs or markets.
Teaching strategies and techniques	They depend partly on the type of program and the need they want to meet, but also on the value of a particular system, the educational potential of technology. Comprehensive, well-designed materials can stimulate self-study and thus affect the quality of the system as a whole.
Communication	Communication between teachers and students is an essential component of distance education, as in all other forms of education.
Local support	Support that in some form enables direct (face-to-face) interaction between the student and the teacher or mentor.
Student and Staff Management	From an administrative perspective, the student and staff management subsystem include admissions, allocation to courses and student services, learning management and instructional procedures, assignments and assessments, tracking of school leaving and completion, and exams.
Management & Administration	Professional staff, as well as well-designed, efficient administrative systems and working methods, planning and monitoring systems, accounting systems, etc.
Building and equipment needs	The system of one distance learning regime does not have students who are there, and therefore there is no need for classrooms and amphitheatres in a central location.
Assessment	The success of any institution is highly dependent on the effectiveness of the monitoring and evaluation system.

There are three very important concepts of e-learning, and they are: enabling technology, content learning, and learning design. People tend to focus on the former, technology, because it is a new and

unknown component, but the other two are equally important. Learning is the process of transferring knowledge from one person to another. Successful e-learning is not just a fusion of technology and content. While this is a good formula for providing information online, just learning is much more than that (Petrovic, 2009). It is crucial to consider how the learning process is designed, how learners acquire knowledge, where they encounter obstacles, and how they are motivated to continue learning (Martha & Santoso, 2018).

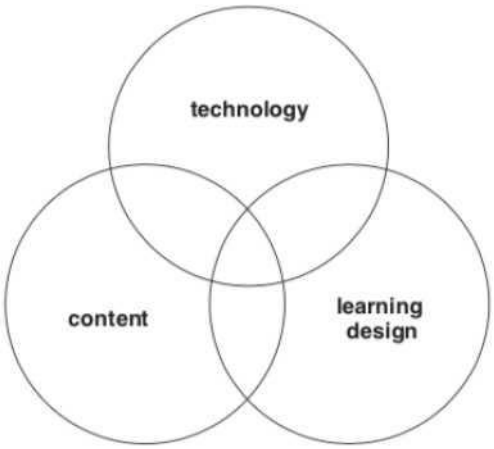

Figure 1. Components of e-learning

It is important to recognize that e-learning is more than just another method or technique, such as remote learning. Rather, it is an approach - an aggregation of different methods made possible by technologies. The transition to e-learning can be challenging, as it fundamentally alters many aspects of the learning process, from curriculum development to student-teacher interaction (Hassen & Aliakbari, 2022).

In the context of the COVID-19 pandemic, the transition to e-learning was particularly abrupt and widespread, as universities and other educational institutions were forced to rapidly adapt to new modalities of instruction (Quesada et al., 2023). Organizations often implement e-learning to save on training time and travel costs associated with face-to-face learning. However, cost savings are just an illusion if e-learning does not effectively build knowledge and skills. The key to successful e-learning is not just the technology, but how it is leveraged as part of a holistic approach to enhancing teaching and learning. University leaders should consider technology not as the end goal, but as a tool to improve the overall educational experience (Ahmed & Opoku, 2021).

The quality of the embedded content is a key factor in determining the success of an e-learning application (Giguruwa et al., 2012). Tailored training through self-paced learning on an e-learning platform can cater to each student's unique needs, beyond just learning styles, by customizing the content, teaching methods, and navigation. Learning engagement is essential, encompassing both behavioral engagement (actions like pressing buttons or typing answers) and psychological engagement (cognitive processes like paying attention, mental organization, and integrating prior knowledge). Multimedia, including text, sound, and visual elements, can be leveraged to help students gain adequate knowledge and skills. Furthermore, e-learning can provide opportunities for students to develop expertise through simulations that expose them to real-world scenarios and tasks, which may be difficult to experience in a traditional work setting (Giguruwa et al., 2012).

In summary, the transition to e-learning at the University of Educons should be approached as a strategic initiative that carefully considers the role of technology, the design of the learning experience, and the broader pedagogical goals.

Types of e-learning

E-learning can be categorized into three main types, all of which involve the use of instructors, course time, and student engagement. The selection of the appropriate type considers the student's prior knowledge, learning pace, available time, and geographical distance. The three main types are: synchronous learning, asynchronous learning, and cohort learning (Hassen & Aliakbari, 2022).

Synchronous learning involves the instructor and students being together at the same time, though not necessarily in the same physical space. Traditional classrooms are a typical example of synchronous learning, where students gather at a given time to engage in conversation and learning. Synchronous e-learning follows a similar approach, with the instructor and one or more students participating through a platform such as GoToMeeting or Teams. This format is often referred to as a webcast, webinar, or virtual classroom.

Conversely, asynchronous learning allows students to follow their own learning rhythm. This occurs when the instructor and students do not participate simultaneously. In traditional learning, completing homework is an example of asynchronous learning, as students are given a specific activity to solve at their own pace.

Cohort learning involves an instructor and students who complete activities like reading, projects, and homework. There is a set start and end time, but within that timeframe, students learn and communicate at their own pace. Unlike a synchronous webinar where all participants join at the same time (e.g., 2:00 p.m.) and participate until the presentation ends (e.g., 4:00 p.m.), in the cohort model, students sign up at the beginning of the week and can then read materials, complete assignments, or interact with other students at any time during that period.

Benefits of e-learning

Today's students demand relevant, mobile, self-paced, and personalized content. This need has evolved into the concept of e-learning. Some of the key advantages of e-learning include (Ulum, 2021; Giannakos et al., 2021):

• Adaptability: Online learning is suitable for individuals from all walks of life, as it allows them to access courses at a time that works for them. The digital revolution has transformed how we approach, consume, discuss, and share content.

• Unlimited access: Unlike traditional classroom teaching, online learning provides the ability to revisit course materials an unlimited number of times. This is particularly beneficial when preparing for exams or revising course content.

• Up-to-date content: The primary benefit of online learning is that it ensures students have access to the latest information and updates.

• Faster delivery: E-learning offers quicker delivery of lessons compared to traditional classroom-based teaching. This is due to factors such as the ability for students to set their own learning pace, reduced travel time, and the option to focus on specific areas of interest.

• Adaptability and consistency: E-learning enables the creation and communication of new training programs, concepts, and ideas. It also allows for consistent delivery of content to all students.

• Cost-effectiveness: E-learning is more cost-effective than traditional learning methods, as it reduces the need for instructors, travel, and physical course materials.

• Efficiency and environmental impact: E-learning has a positive impact on the profitability of an organization and reduces the environmental footprint by minimizing paper usage.

The benefits of e-learning as discussed above highlight the potential for enhancing the overall learning experience at the University of Educons.

Elements of e-learning

E-learning applications feature common elements that are crucial for effective planning and analysis. The interface provides a visual desktop framework with branding, titles, buttons, and navigation. Text can serve as the primary content or support audio narration. Course navigation uses buttons, links, and menus to guide students, with fixed or flexible options. Interactions require student responses to reinforce learning. Tests come in various formats, some graded directly. A more engaging approach incorporates multimedia like sound, video, graphics, and animations (Martha & Santoso, 2018; Hassen & Aliakbari, 2022; Petrović, 2011; Wang et al., 2019; Pham et al., 2018; Giguruwa et al., 2012; Widodo et al., 2020; Quesada et al., 2023).

E-learning, e-learning 1.0 and e-learning 2.0

LCMS - Learning Content Management System, which translates to Educational Content Management System, is a virtual learning environment, which is used by teachers to create and set up educational content, and all participants use to implement various forms of synchronous and asynchronous learning (forums, chat rooms, programmed classes, tests, etc) (Petrović, 2009). According to Petrović, Herceg, the most famous, free Web platform (L(C)MS) for the organization of e-teaching and e-learning are: MOODLE (v 1.9) – has existed since 2002, originated in Australia; A Tutor (v 2.0.2) - has been around since 2002, it was created in Canada; Claroline (v 1.10.4) - exists since 2001, originated in Belgium; eFront (v 3.6.9) - has existed since 2002, originated in Greece; Sakai (v 2.7) - has been around since 2005; originated in the USA" [12]. Also, "there are numerous commercial solutions for the implementation of e-teaching, the most famous of which is the LCMS Blackboard, which is mostly used in the USA in colleges and schools" (Petrovic, Herceg,2011).

With the development of Web technologies, e-teaching and e-learning have experienced their two phases of evolution: eLearning 1.0 and eLearning 2.0, which correspond to the development of Web 1.0 and Web 2.0 technology (Lowry et al., 1951). ELearning 1.0 is the traditional form of e-learning, based on the use of learning management systems, typical of the Web 1.0 phase, which was characterized by static content, one-way interaction, centralized control and basic features such as content presentation, tracking test results, etc. According to Petrovic, eLearning 1.0 is the common name for the first e-teaching systems and involves computer-based courses based on careful content preparation. The learning materials were prepared by teachers and were intended exclusively for a specific target group. The computer, which was connected to the Internet, transmitted lessons, tutorials and tests using most of the e-mail service. The role of the students was to learn by reading the prepared materials and to take the assigned tests to check their knowledge. The tests were reviewed and graded by teachers.

However, with the advent of Web 2.0, i.e. a large number of software tools and services, the concept of eLearning 1.0 as a form of e-teaching and e-learning has changed and received a new form known as eLearning 2.0. The students themselves began to get involved in the process of preparing the material.

Communication between teachers and students and within the student group gained momentum because it was supported by many software tools called "social software", which provide an opportunity for people with similar interests to meet, share ideas and collaborate in many creative ways. A very important feature of this software is that it is mostly free to participate in and use and that it belongs to the group of open-source software. Today, e-learning uses a combination (Mash-up) of different social software, such as blogs, collaborative software (e.g. Wiki, Forums, social networks, etc.), e-portfolios and virtual classrooms (SecondLife, etc.

Distance learning at the University of Edukons from Sremska Kamenica

The rapid growth of the internet has led to a shift in the development of learning programs, moving from local desktops to online applications. While XML programming has emerged as a new internet standard, adapting learning programs necessitates the use of authoring systems such as Macromedia Director, Authorware, Dreamweaver, Flash, and Microsoft FrontPage, which demand significant design, programming skills, and time. An alternative to these applications is the implementation of distance learning courses or systems. One such system, which is gaining popularity worldwide, is Moodle (Simons et al., 2011). The University of Educons adopted this system to manage the learning process due to several key features:

- High availability - the ability to serve many users simultaneously.
- Scalability - the capacity to accommodate increasing user numbers without degrading performance.
- Ease of use - users can quickly become proficient with the system.
- Interoperability - the ability to integrate with the institution's existing software.
- Stability - the reliable MOODLE software version provides uninterrupted services for students and faculty.
- Security - the system poses no greater security risk than other components of the institution's information system.

At Educons University, students enrolled in the Distance Learning System are provided with:

· A bilingual DLS portal that offers notifications, course information, teacher details, consultation schedules, exam dates, colloquium and exam results, web services, an electronic library, course pages, videos, certificate details, and instructions for use.

· A DLS platform, which is an information system that manages the learning process through various harmonized modules.

· Video conferencing capabilities using Polycom high-definition equipment installed at Educons University. This allows teachers to present media-rich content and data, enhancing lectures and interactivity with students during the video conferences. The recorded videos are stored on a dedicated web server, enabling student access. The DLS system has been operational at the University of Educons since 2010 and has enabled the successful implementation of distance learning programs for over 1,500 students annually, contributing to the university's academic and financial performance (Petrović, 2011).

Dls platform – Moodle

MOODLE is designed to support a learning style known as Social Constructive Pedagogy, which is inherently interactive. The underlying Social Constructive Philosophy posits that individuals learn most

effectively when they engage with learning materials, create new content for others, and discuss the materials with their peers. This approach contrasts with the traditional classroom model, which is more lecture focused. In this way of learning, students collaborate to arrive at the best solution to a given problem.

A graphical user interface is a system of software components that a user employs to interact with an operating system. User-computer communication occurs through input elements, and the user receives feedback from the computer via the monitor screen. Depending on the graphical interface, the virtual classroom can take on a specific physiognomy. By carefully developing a multimodal interactive interface, it is possible to offer a new graphical interface with a 3D environment. Modern 3D technological solutions enable moving and exploring space without direct presence. The ability to virtualize the classroom, be it classic, modern, or optional, is now a reality, as existing computers possess powerful graphics processors capable of realizing highly demanding 3D graphics. In this way, the student can have a real virtual world before them, a world generated by computer technology. The interface creates an illusion of spatiality and depth, allowing the student to move through virtual rooms. Such an interface enhances the sense of belonging, or presence, thereby increasing the engagement and participation of students in the classroom (Rovai et al., 2008; Giguruwa et al., 2012). This approach to teaching enriches the traditional method of learning by incorporating a combination of audio, visual, and interactive elements that can enhance the understanding of course materials.

Moodle is compatible with a wide range of operating systems that support PHP, including most web hosting providers. The data is stored in a single database, with MySQL and PostgreSQL being the best-supported options, though other databases such as Oracle, IBM DB2, Microsoft SQL Server, and others can also be used. When Moodle is installed on a web server, it can be accessed by anyone with an internet connection.

Through the DLS platform, students can engage with course materials, actively participate in homework and quizzes, communicate with instructors, and monitor their progress and grades.

The quality of the teaching process is ensured through a variety of elements:

· Flash presentations from lectures, which convey the concepts of teaching and learning;
· PDF learning materials and electronic textbooks;
· Video recordings of lectures by professors;
· Tests and quizzes.

The platform serves to store, manage, and distribute these learning materials to end users. Developing high-quality learning materials requires a significant investment of time and money. Therefore, it is crucial that these materials are compatible with various e-learning platforms, their versions, and the operating systems on which they are built.

Moodle is a free, open-source software for distance learning. It is also known as a course management system, a learning management system, or a virtual learning environment. Moodle is designed to empower educators in creating online courses with the ability to interact in a variety of ways. The open-source and modular design make this system available for further development and expansion of functionalities. Moodle is an acronym for Modular Object-Oriented Dynamic Learning Environment. This software has been translated into over 70 languages. The ongoing development of Moodle as an open-source, free software is supported by a team of developers and an international community of users.

Project of creating a website with extended functionality for better communication via the Internet and organization of the service system

The project involved creating a website that is integrated with the University of Educons' website and is hosted on www.site1.educons.edu.rs.www.site1.educons.edu.rs The website's enriched functionalities include:

· A tool for organizing webinars, online meetings, and consultations;

· A tool for managing the service system within the University of Educons, supporting Service Ticketing, Help Desk, Service Desk, and Notification Service tasks;

· Quality control for individual service instances and the overall service system.

The communication platform is open source, eliminating the need for additional licensing of technologies and applications. The website, serving as the platform's foundation and enhanced with these tools, is designed and built according to the user's defined requirements in terms of folder structure, content blocks, and the inclusion of text and multimedia content prepared by the user.

The website is created using the Joomla CMS, adhering to modern technological standards for design, security, ease of data entry, and optimization for tablets and mobile phones.

We emphasize the ease of content updating, where users can be ready to update the site and its users after just a few hours of training. The website features intuitive navigation, providing visitors with the necessary information in the minimum number of clicks, and ensuring fast page loading times. The website was evaluated, and the University of Educons expressed full satisfaction with its functionality and appearance.

Webinar Tools

The tool aims to facilitate communication and collaboration via the Internet, enabling activities such as consultations, education, seminars, meetings, conferences, and marketing campaigns. Users can carry out these activities domestically and internationally with minimal time and financial costs.

Timely communication and collaboration are essential for successfully conducting the teaching process. Collaboration represents a greater degree of cooperation, where people work and achieve goals together. A webinar organization tool allows individuals and groups of students to collaborate regardless of their locations and schedules. Participants unable to engage in real-time during online education, consultations, or meetings can watch recordings at a later, convenient time. The webinar tool is a server-oriented solution, allowing users to access it through a web browser without the need for client-side software installation. To achieve a high acceptance rate among lecturers and students, the training for using the webinar is intuitive and minimal.

The webinar host tool offers a range of key functionalities, including the ability to easily invite students to a meeting by sending them a link via email. Students can then join the meeting by simply clicking on the provided link. Once in the meeting, students can choose options to control their visibility and audio. Additionally, the tool allows for the exchange and review of documents, as well as the ability to write on them collaboratively. A shared writing board is also available, enabling both public and private chat correspondence. Participants can record parts of the meeting with a single click for later use, and both lecturers and other attendees can share their screens, including any content from their screens. The tool also enables students to raise their hands to indicate they have a question and provides customizable

screen layout configurations for each user. Finally, the webinar host tool features a multilingual menu, ensuring accessibility for users from diverse language backgrounds.

The meeting organizer also has access to several key functionalities, including the ability to:

- Permanently enable the microphone
- Permanently disable the camera
- Turn off public and private chat
- Mute the microphone for everyone except the main administrator
- Lower participants' "raised hands"

In addition to supporting online study, this platform can also be utilized for commercial purposes.

Management Meetings

A common situation in companies is that work teams and their managers are often unavailable for in-person meetings due to disparate schedules and locations. As a result, there can be a lack of communication, poor management, and a decline in business performance. The solution is to hold online meetings. Via the Internet, participants can attend the meeting in real-time or access recordings later, exchanging and providing information through electronic questionnaires, chat rooms, and mini project-oriented forums. The webinar management app makes various supporting documents and information readily available. The University of Educons has also implemented a comprehensive online service desk system to facilitate efficient communication and issue resolution between students, faculty, and administrative staff.

Partner Network Management

Many of today's companies rely on multiple sales and service partners. The success of such a business greatly depends on a series of activities essential for the partnership to reach its full potential. However, partner companies and teams are often geographically dispersed, making timely training, reporting, joint planning, and adaptation to market dynamics challenging. This can result in a lack of business results at every level. The webinar solution enables the University of Educons to provide training, feedback, and collaborative planning for partner universities and organizations related to educational programs, student recruitment, and administrative processes. The solution to these problems lies in online collaboration. The webinar tool facilitates timely communication with multimedia-enriched content that can guide partners in real-time. Those unable to participate in real-time can subsequently access the complete communication history or relevant summaries, enabling them to continue the conversations at the next meeting fully informed.

Consulting with existing customers.

Providing quality services to existing customers is the foundation of any business's success. While in-person meetings at the client's location may not always be practical or necessary, the webinar tool offers a viable alternative. This virtual tool provides employees with the same opportunities as face-to-face meetings, offering several advantages, such as the ease and speed of setting up a meeting, the ability to review documents more efficiently, the option to zoom in and annotate documents, access to a shared whiteboard, and the capability to record the meeting or specific parts of it, documenting the discussions and agreements. Attendees can participate in online meetings in real-time or access recordings

later, saving time and resources while enhancing their timeliness, efficiency, and productivity. The use of webinars can significantly enhance the quality-of-service delivery. This allows the University of Educons to maintain close relationships with existing students and educational partners, while also expanding its reach to new audiences through online consultations and collaboration.

Different presentations

Live conferences and presentations can be enriched by including multiple presenters from different locations who present online. Electronic questionnaires can help segment visitors and enable the continuation of other planned business steps during or after a conference or meeting. The webinar platform provides the necessary tools to pre-record or simultaneously broadcast sessions, enabling even larger audiences to access the content.

Knowledge base

Recording online meetings and conferences for subsequent use has become increasingly popular. Every virtual gathering, including presentations of "demo" products, can be recorded and accessed later, whether for sales, marketing, training, or service purposes. These recorded meetings become a valuable resource for the company, enabling the content to be leveraged without additional investment in customer support, marketing, or training of clients, partners, and employees. The University of Educons has successfully utilized this functionality to build a comprehensive knowledge base of recorded sessions and presentations that can be accessed by students, faculty, and staff as needed.

Improving cooperation with employees and partners

If a company conducts business with employees and partners in multiple locations across the country and internationally, a webinar tool should provide everything needed for efficient and effective communication and collaboration. In addition to classic phone and conference calls, and email correspondence, the webinar tool offers quick and easy face-to-face meetings over the Internet, complementing personal communication. The University of Educons has integrated the webinar platform to enhance collaboration and communication between its campuses, as well as with partner universities, educational organizations, and students across different regions and countries (Petrović, 2011).

Managing Service Teams

Every company operates as a service system, and the provision of unified services is becoming increasingly dynamic and complex. To deliver adequate service quality to customers, it is necessary for service teams to be trained with the right online tools and remain organized and manageable, whether working in the office or out in the field. The standard scenario involves many individuals or groups with complex service requirements. This often poses a serious challenge if the company lacks modern tools for internet-based communication, meetings, and service organization. The University of Educons has successfully implemented a cloud-based webinar platform to facilitate the onboarding, training, and ongoing support of its global network of faculty, staff, and partner organizations (Kim-Soon et al., 2014; Montagud et al., 2022; Banu et al., 2015).

Service System Management Tool

Every company deals with numerous service requests daily, involving employees, partners, and customers across various departments such as production, sales, service, marketing, accounting, and HR. However, a significant challenge is that up to 70% of these service requests are often forgotten, incomplete, delayed, or misunderstood. This occurs because requests are made via email, enterprise software, meetings, or verbally, making it difficult for the organization to track progress and status. Such a situation can slow down and disrupt business operations. A service management tool provides a solution by ensuring that service requests become measurable and manageable. With these tools, employee communication is no longer limited to checking the status of tasks; instead, the tool makes these statuses visible and clear, allowing employees to focus on quality and constructive suggestions. Achieving good external quality requires a well-functioning internal service system. The service management tool enables planning, assignment, organization, and management of service tasks and activities, both within the company with employees and externally with partners and customers, all with timely feedback. A service management tool can be a timely solution if the business faces any of the following challenges:

- Lack of visibility into the progress and completion of tasks assigned to different teams and individuals
- Unclear understanding among employees about ongoing work, problems, and results, making it difficult to collaborate
- Excessive time spent on calls and meetings to check the status of work execution
- Difficulty in accessing the latest version of documents, leading to delays and errors
- Time-consuming process of arranging and attending meetings
- Poor overview of employee obligations and tasks, causing confusion and inefficient time management
- Employees and partners forgetting previously agreed-upon decisions
- Lack of feedback on customer satisfaction with the company's service quality
- Limited learning from previous service requests and activities
- Challenges for partners and customers to directly submit service requests, leading to congestion on phone and task assignment

By addressing these issues, a service management tool can enhance productivity and provide a competitive advantage for the business. A service management tool should be an organizational communication tool, functionally hybrid and multidisciplinary, which includes the functionalities of the following tools: Help Desk, Service Desk, Ticketing, Collaboration, Service Quality Management, Customer Satisfaction Management, Productivity Management, Knowledge Process Management, Document Management, Feedback Management.

How easy is it to work in service management tools? How much time do they take? In a minute or two, you should create a service request – a ticket, in your own name or on someone else's behalf (by invitation), to delegate to one or more executors, to appoint a responsible person – a leader. Easily qualify the type of request (service request, problem, incident), work priority (critical, urgent, high, medium, low), required due date, organizational units, or interested groups of employees to whom the request will be visible. At the same time, the requester, executors and the leader should receive an e-mail and SMS message about the assigned request. The executor, the leader, accepts the request, confirms the

deadline or sets a new deadline. He can add more executors – helpers in the work and organize their work. All activities that occur on the service request are forwarded to the executors and the client by e-mail. Interested groups who can see the service request in their service request tables, can be easily informed about the status of the work. Business becomes more accurate and faster between different teams and departments, reducing unnecessary use of e-mail, physical meetings, and phone calls to check status on tasks, streamline work. When service providers make a service request, the customer should receive a notification via e-mail and have the option to evaluate the service task.

In short, a service management tool is a tool where employees, partners, and customers are registered. In a few clicks, you need to set your own or the client's service request, assign it to a person or team, define the deadline, a detailed description and attachments to the service request, define the workflow (workflow), passing parameters (checkpoints), conduct correspondence and consultation, get feedback from the client on the quality of work, statistics on the quality of an individual, team or the entire organization.

All participants in the service request receive immediate feedback via e-mail. As a result, unnecessary status checks via e-mail, meetings, phone calls are bypassed. Employees, partners, clients are timely and accurately informed, focused on concrete work and quality creation, and not on confusion, assumptions and slowness in work.

Discussions

The use of e-learning platforms at universities has markedly influenced student learning outcomes, particularly in disciplines like Business Studies. This comparative analysis examines the impact of e-learning and traditional learning methods on student engagement, performance, and overall educational experience in the field of Business Studies.

E-learning platforms facilitate greater student engagement by offering interactive multimedia content, discussion forums, and real-time feedback. Research indicates that students in online courses often exhibit higher engagement levels than in traditional classroom settings (Smart & Cappel, 2006). The ability to access learning materials anytime and anywhere contributes to a more flexible and personalized learning experience.

Research on student performance in e-learning versus traditional learning environments has yielded mixed results. A meta-analysis by Bernard et al. (2014) found that e-learning can lead to similar or even better academic outcomes, especially when courses incorporate interactive elements and are well-designed. However, the absence of direct instructor support can pose challenges for some students, potentially impacting their performance adversely (Jaggars & Bailey, 2010).

E-learning offers unrivaled flexibility, enabling students to learn at their own pace and accommodate their schedules. This flexibility is particularly advantageous for non-traditional students, such as working professionals or those with family obligations. Conversely, traditional learning methods often necessitate fixed schedules and physical presence, restricting accessibility for certain students (Allen & Seaman, 2017).

While e-learning offers numerous advantages, it also presents challenges, such as the need for digital literacy skills and potential feelings of isolation. To address these challenges, institutions should provide adequate technical support and foster online communities to enhance the learning experience and promote engagement (Keengwe & Kidd, 2010).

In conclusion, the impact of e-learning platforms on student learning outcomes in Business Studies is multifaceted. While e-learning enhances engagement, flexibility, and accessibility, it also necessitates

thoughtful course design and robust support systems to ensure academic success. Comparative studies suggest that when implemented effectively, e-learning can rival traditional learning methods in terms of student performance and satisfaction.

Factors Contributing to Student Success in Online Courses

Successful online students demonstrate strong engagement, self-regulation, and access to necessary resources. Engaged students actively participate through interactive content, timely feedback, and collaborative opportunities. As highlighted by Yang, Baldwin, and Snelson (2017), frequent interactions with instructors and peers help build a thriving learning community. Self-regulated learners set goals, monitor their progress, and adapt their strategies as needed, leading to higher course completion rates. Additionally, access to reliable technology, learning materials, and institutional support contributes to enhanced online learning experiences and improved student outcomes (Yang et al., 2017).

Faculty at Educons University have shared their insights on the challenges and opportunities involved in transitioning to online teaching. These faculty members have offered valuable perspectives based on their experiences.

Faculty members have identified various challenges associated with online instruction, such as limited social interaction, technical issues, and maintaining student engagement. The lack of face-to-face interaction can make it difficult to build rapport with students and address their individual needs.

Despite these challenges, faculty members recognize the numerous opportunities presented by online teaching. They appreciate the flexibility it offers, allowing students to learn at their own pace and on their own schedule. Additionally, online platforms can provide access to a wider range of resources and innovative teaching tools that can enhance the learning experience.

In conclusion, while the transition to online teaching at Educons University presents certain challenges, it also offers significant opportunities for enhancing education. The online modality can facilitate a more flexible and personalized learning experience, enabling students to access course materials at their convenience. Moreover, the integration of interactive multimedia and collaborative tools can foster greater student engagement. When implemented effectively, online education can rival traditional learning methods in terms of student performance and satisfaction.

Effective professional development programs are crucial for preparing faculty members for online instruction at Educons University. Several key types of support have proven to be particularly beneficial:

1. Hands-on Workshops: Practical workshops focused on the use of learning management systems and the creation of engaging online content are highly valuable.
2. Mentoring Programs: Pairing experienced online instructors with new faculty members facilitates the sharing of best practices and personalized guidance.
3. Online Resources and Communities: Providing access to instructional videos, forums, and other online resources fosters a collaborative learning environment for faculty members.
4. Continuous Support: Ongoing check-ins and feedback sessions ensure that faculty members feel supported throughout their transition to online teaching.

These professional development initiatives help Educons University faculty members to effectively adapt to online teaching and enhance their instructional skills.

Student satisfaction with e-learning platforms at Educons University is influenced by several key factors:

1. Course Design: Well-designed courses with clear objectives and organized content significantly enhance student satisfaction. Effective course design ensures students can easily navigate the material and understand the learning outcomes.
2. Interactive Elements: Platforms that incorporate interactive features like quizzes, discussion forums, and multimedia content tend to receive higher satisfaction ratings. These elements promote active learning and engagement.
3. Technical Support: Reliable technical support is crucial for addressing any issues students encounter with the platform. Prompt and effective support can prevent frustration and improve the overall learning experience.
4. Instructor Presence: The presence and responsiveness of instructors play a vital role in student satisfaction. Regular feedback and interaction with instructors help students feel supported and valued.
5. Accessibility: Platforms that are accessible to all students, including those with disabilities, contribute to higher satisfaction levels. Ensuring all students can effectively access and use the platform is essential.
6. Flexibility: The ability to access course materials anytime and anywhere is highly valued by students. Flexibility allows students to learn at their own pace and fit their studies around other commitments.

By addressing these key factors, Educons University can continue to enhance student satisfaction and the overall effectiveness of its e-learning initiatives (Yan et al., 2022; Dhingra, 2020; Minutillo et al., 2020; Monika et al., 2023).

Conclusion

The time of rapid technological changes and new demands on the labour market inevitably affect the educational process, the type and quality of knowledge. The application of information and communication technology enables various economic and non-economic institutions to create a competitive advantage in the field they are engaged in. Educational institutions, due to the globalization of technology development, competition, etc., are changing their approach by putting the student at the centre of their activity. Distance learning has emerged as a model for adapting the education system to students. Its main advantage is reflected in reduced education costs, but also space and time flexibility. The Internet and its services are the primary means through which learning takes place.

This paper is based on the experience gained in working with videoconferencing system equipment and cooperation with universities that have been using such systems for years. Educons University has been using videoconferencing equipment and systems for many years. The goal is constant education and training not only of students, but also of employees. The quality of teaching and teaching content implies student satisfaction with the quality of all segments of teaching: with the way of transferring knowledge, the credibility of teachers, the availability and adoption of content, and the ability to search, analyse and interpret information.

With the introduction and active implementation of distance learning, Educons University intends to achieve the following strategic goals:

- Education and training of staff who will have an enviable level of knowledge that would enable them to be competitive in the labour market and with which future graduates could be included in modern business flows without additional training.
- Permanent monitoring of modern scientific trends and achievements and transfer of knowledge to students through modern curricula. The purpose is to provide quality studies in your own country, without the need to go abroad.
- Introduction of a modern, transparent system of distance education that will respond to the needs of modern society.
- Improving the educational process, expanding the range of education methods and increasing the quality of education.

The time and money savings are evident in such a long-term investment. Educational institutions are using the distance learning system to create a new form of training and continuous education for people who are ready to invest in themselves and cannot do it in the traditional way.

The impact of E-Learning on Student Learning Outcomes should be further researched, investigating the specific impact of the implemented e-learning strategies on student learning outcomes in different disciplines. This could involve comparing the performance of students in online courses versus traditional classroom settings, analysing the effectiveness of different online teaching methodologies, and exploring the relationship between student engagement in online platforms and their academic achievement. Faculty Experiences and Perceptions of E-Learning should also be explored in depth, as the paper only touches on staff training.

Future research could investigate faculty satisfaction with the e-learning platforms, the challenges they face in adapting to online teaching, and the effectiveness of professional development programs designed to support them in online instruction. Additionally, the long-term sustainability and scalability of the implemented e-learning model should be investigated, considering factors such as technological infrastructure, ongoing maintenance costs, and the capacity to expand online offerings to accommodate growing student demand. Research could also focus on optimizing the Moodle platform and the proprietary platform developed by Educons University, involving user experience studies, A/B testing of different features, and exploring the integration of new technologies such as AI-powered learning tools or virtual reality simulations. Comparing Educons University's e-learning model with those of other institutions could provide valuable insights into best practices, challenges, and potential areas for improvement, and future research could investigate the accessibility and inclusivity of the e-learning platforms for students with disabilities or those from diverse socioeconomic backgrounds, evaluating the platforms' compliance with accessibility guidelines and exploring strategies to ensure equitable access to online learning resources. By addressing these research directions, Educons University can further enhance its e-learning initiatives and maximize the benefits of online education for both students and faculty.

Conflict of interests

The authors declare no conflict of interest.

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