The Implications of Learning Management System on Education

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Abstract: *The Learning Management System (LMS) has been established in a number of higher education institutions worldwide to help for connecting students and faculty without the confines of the traditional classroom. It is an environment with digital software which is designed to manage user learning interventions as well as deliver learning content and resources to all 21st century students. Since the LMS system has already been implemented and it has also been made compulsory for the teachers to apply in their daily teaching, it is vital to identify feedback of students as users of LMS. Previous studies have shown various findings in relation to the impact of using LMS in the higher learning environment in various institutions worldwide therefore, the present study will provide several insights of the LMS phenomenon and also the implementation and the advantages of using LMS applications and the disadvantages of using LMS applications can be assessed. The advantages of using LMS applications in education were indicated by the suitability of the LMS applications with the needs of teachers in creating, distributing, managing, etc. learning content anytime and anywhere and students show weakness in using the LMS application mainly because of poor signal problems, lack of interaction in learning, the impossibility of uploading videos, photos for practical assignments, etc. In conclusion, using the LMS requires strong network support throughout the region and the LMS application is required to update its capacity to send instruction assignments in the form of videos and photos so that learning is maximized. Interactive learning between teachers and students is needed to support learning and the expected implication is that the government needs to consider supporting policies related to cooperation with the private sector to build internet access throughout India and stakeholders must focus on the availability of LMS support facilities, providing alternative offline classroom software, apps, etc. based on digital technology to reach better and innovative education at all levels.*

Keywords: Education, Impact, Implications, Learning Management System, Quality, Students

Introduction

The LMS in the community of higher education institutions is an online portal that connects teachers and students, it provides an avenue for classroom materials/ activities to be shared easily. It is also a portal that enables lecturers and students to interact out of the classroom, having discussions through forums that could otherwise take up too much of the time supposed to be spent learning in the classroom. In this era of information technology, the internet is easily available and accessible by urban areas, which is where most universities are situated. The internet is defined as a vast computer network linking smaller computer networks worldwide, and it includes commercial, educational, governmental, and other networks, all of which use the same set of communications protocols. Most higher education institutions students nowadays also have access to the internet as their institution provides internet access, and usually there are internet cafes within a walking distance from the institution's campus, catering to students. Some also have internet access within their own home as they subscribe to an internet service provider. University students are mostly independent in their learning as lecturers usually give out lecture notes, and further information are left for the students to discover on their own, as it is not a one-way learning process which is practiced in the primary and secondary school system. The learning process at the university level is a two-way process, lecturers share their knowledge and students give their opinions or thoughts in return a topic in a class discussion. Therefore, university students need to constantly broaden their knowledge by searching for information and various technical platforms for educational information that have flexibility, accessibility of information, global reach, equality, and efficient

innovation have been provided by several advances in information technology. However, behind its advantages, several shortcomings are also found in using technology in education. For example, there is low motivation and lack of student independence (Xie et al., 2020). Efforts to recommend national strategies and investigate in depth the advantages and disadvantages of online learning methods to achieve the fundamental goals of higher education were supported by previous research (Emanuel et al., 2022). Karim (2022) explained that the advantages and disadvantages of implementing online learning methods have been reported in several countries globally. Different platforms have different advantages and disadvantages generally, educators and students are satisfied with online interactions related to their learning needs. Online education in the new normal was also carried out at higher education institutions, carried out from home still, staff and lecturers continued to work from campus by implementing work from home (WFH) and work from office (WFO) systems alternately, conducted in areas considered safe or green zones. The application of information and communication technology (ICT) is something new in the world of education in India, where not everyone can accept and apply it and students believe they can adapt to current technology, such as web-based learning. Some students can study remotely using ICT, such as Google Classroom, but others want face-to-face learning (Deiniatur, 2021). Unfortunately, several barriers, such as a poor internet network connection, lack of student focus in learning, lack of creative and original instructors, necessitate additional research into the efficiency of using the LMS particularly in creating video learning, written text materials, and online learning (Bustomi et al., 2021). Students believe that offline lectures or, at the very least, hybrid learning can be implemented to maximize learning (Ningtyas, 2022) however, it was discovered that both students and teachers from all existing faculties faced several challenges and problems during LMS use and it becoming more creative and independent and increasing the understanding of students of the subject matter. However, several cases of LMS deficiencies in the form of unstable signal coverage in certain areas have been detected (Ningtyas, 2022). The advantages of online teaching systems do not depend on learning modalities, the relevance of suggested content and expected value but rather

on decision rules about how students evaluate their educational experience (Dziuban et al., 2018).

Objectives of the Study

- ❖ To study the roles of learning management system in the context of education

- ❖ To assess the implications of the learning management system on education

Methodology

The present study is mainly established on secondary data which are gathered from renowned research articles, journals, position papers, etc. which are all related to "The Implications of Learning Management System on Education"

Review of Literature

LMS is software designed to distribute and manage learning content delivery and learning how to use an LMS offers the advantages obtained through various solutions. Each module of the learning system has different possibilities therefore, an evaluation of the usefulness of the standard module for effective learning is needed (Kakasevski et al., 2008). Teachers may be helped by LMS to plan and manage learning materials and other needs related to the teaching and learning process, for example, articles, e-books, animated videos, sounds, and exciting learning videos to make the learning process funnier and innovative. According to Alias & Zainuddin (2005), it is essential for teachers who teach online classes to know about technology or use new technologies that can be delivered in online learning effectively and efficiently. Every skill in using technology that the teacher has learned is undoubtedly related to the positive development of his/her teaching like face-to-face and online classes. (Conde et al., 2014). Technology is considered necessary not only as a background, but also as a teaching context because this is where the teaching and learning process takes place in online teaching and the role of online learning applications is very diverse (Dube et al.,2022; Tsakeni, 2021). It still has limitations regarding privacy that may be revealed (Wang et al., 2012). As a communication tool, students are allowed by the Internet to learn many things about relating and communicating with teachers and friends. Thus, the internet has become commercialization for obtaining information and has become a paradigm in the teaching and learning

process as an interactive tool (Forsyth, 2003). Online education refers to e-learning. This usually leads to distance education that does not involve traditional classroom settings in which both teachers and students are taught. The study explains that LMS has a significant role in facilitating and improving the teaching and learning process in the current pandemic situation. The delivery of learning is not only enhanced by LMS through electronic devices to improve student learning outcomes in a collaborative environment, but teachers are allowed to focus on designing all meaningful pedagogical activities (Kattoua et al., 2016). Education is a conscious effort to prepare students through guidance, teaching, and training activities for their role in the future (Pacheco, 2021). Toward the new normal means preparing oneself for the provision of education and emphasizing effective learning, motivating, and building morality. In the new normal era, higher education costs increase, and efforts are being made to adapt to online learning methods, develop learning curricula, reduce physical contact, avoid crowds, and adopt a healthy lifestyle (Doyle & Delaney, 2009). The meaning of education in an administrative context, namely, the implementation of traditional schools, tends to be reduced by these two paradigms (Walunj, 2020). In the new normal era, digital technology-based learning is being implemented by only a few educational institutions because they do not have sufficient support in terms of costs, facilities, and teacher competence. The new normal in education changes the paradigm of parents, who initially entrusted most of the educational responsibilities of their children to educational institutions, especially teachers, who now accept them back and they realize that education in the new normal era is quite difficult to pass without support and shared responsibility (Motala & Menon, 2002). Internet presence helps to improve the educational process and address problems related to weak collaborative partnerships, declining educational standards, rising costs, increasing student numbers and to meet the general increased demand for higher education (I. Luambano and J. Nawe, 2004).

The Roles of the Learning Management System

The role of the LMS system is significant for the quality of education through interactive features and effective learning management, as explained in the results and in helping lecturers plan and create a syllabus, manage learning materials, manage distance lecture activities, recapitulate student grades, attendance, etc. LMS was considered an effort to optimize teaching and learning activities by providing convenience for lecturers and students to interact online when viewed from the way it works. LMS was able to create a more effective and efficient way of learning in the new normal era and lecturers most widely use LMS because of its essential role as a supporting facility for practicum guidance, assisting, planning, implementing learning, etc. LMS makes the role of lecturers as teachers more time-efficient, saves on transportation costs, and makes it easier to monitor students participating in the distance learning process and lecturers acknowledged the perceived benefits. LMS help the teaching and learning process be more systematic, especially in organizing learning materials and preparing lecturer reports. The difficulty lies in the initial use, where the lecturer must enter learning materials and arrange them according to student needs and semester learning plans. It can be understood that before the new normal, lecturers had problems using the LMS application. However, they began to adapt to the various features provided over time. The views of lecturers who initially complained that online learning methods were difficult to understand. The lack of online learning methods to achieve the real goals of higher education has been supported by previous research (Emanuel et al., 2022). Karim (2022) explains that various platforms have different advantages and disadvantages. Educators and students are generally satisfied with online interactions, considering their learning needs. Researchers have identified the difficulties faced by lecturers and an inventory of the advantages and disadvantages of LMS applications in general, LMS provides benefits. However, each module of the learning system has distinct capabilities, necessitating a usability assessment for effective online learning (Kakasevski et al., 2008). Of course, each LMS has its constraints (Wang et al., 2012) as a result, after assessing the decision-making processes and campus policies of the authorities, this challenge can eventually be overcome and with lecturers regarding the benefits of the LMS application, it is clear that lecturers are aware of the benefits of the LMS application. Access is available anytime and from any location, and transit costs are reduced. Through the capabilities provided by the LMS, they

become more focused on designing more effective learning for students. It is only that some roadblocks need to be removed right away to allow learning to go as smoothly as possible. They must reinvent themselves as learners, adapting to modern technology and adjusting their learning perspectives in the new normal era. They must be able to blend traditional and online learning approaches and lecturers must be imaginative and innovative to take advantage of limited face-to-face time because face-to-face hours are not as busy as they formerly were. Learning delivery through electronic devices is allowed by LMS, improving student learning outcomes in a collaborative environment and teachers focusing on designing all meaningful pedagogical activities (Kattoua et al., 2016) therefore, lecturers may learn more about the material and complete tasks through the LMS.

The Implications of the Learning Management System on the Education

The feasibility of the LMS system was shown by the positive responses given by faculty and students, although some participants complained about obstacles in using LMS. In its development, these obstacles can be overcome properly because of the significant adaptability of participants to technological developments. Lecturers focus on planning and implementing learning using LMS to improve the quality of learning meanwhile, students are the main object and subject of teaching and learning activities. More profoundly, it was revealed in the findings that the strong LMS implications could support the involvement of every educational material thus, lecturers and students have been quite successful in the teaching and learning process using LMS in the new normal era because they are aware of the consequences of using LMS, both in terms of its advantages and disadvantages. Based on the data analysis, it can be seen that the majority of lecturers had difficulties using the LMS application before the new normal period. Bozkurt and Sharma (2020) have explained the purpose of education which is to create a person who has the quality and character to have a broad view of the future to achieve goals and adapt to the surrounding environment. This is one of the reasons why lecturers adapt to new learning methods, even though the time required is not short. The views of the students on the use of LMS applications during the teaching and learning process in the new normal period are reviewed by

the findings and students felt some shortcomings while using the LMS application. However, this deficiency is not due to the features used but to weak internet access and additional costs to purchase internet quotas because learning is done online during the new normal period. Even though, in the beginning, many students had difficulties sending assignments due to Internet signal problems, they realized the advantages that were also found in this online learning system. The spirit of independent learning is enhanced with LMS due to the demands of assignments in English, where all e-learning features are made in English. What is unique is that students are given the option to use LMS applications and e-learning for religious practice assignments. Because there are compulsory practical courses that must be conducted at IAIN Metro, namely the practice of worship, the answers of the students to questions about the difficulties of using the LMS application varied widely. Students experience various obstacles while using the LMS application still, this deficiency does not lie in the application but in external factors, namely the Internet network and lecturer competencies, which still have to be improved so that students do not feel bored, lack interaction, and boredom. According to Jaradat and Ajlouni (2021), students prefer an online learning environment to face-to-face learning and consider LMS to be more reliable, except when the Internet network is unstable, lack LMS skills and has poor time management. Students with better basic skills in the Internet perceived the Internet to be supportive of learning environment by using the Internet for their learning tasks and also generally had better attitudes toward using the Internet to improve their studies. A well-managed information flow in an academic institution can lead to the improvement of academic standards and can ensure greater equality. With the introduction of the Internet, information-seeking activities and information access have become much easier, faster, and more cost-effective for the intellectual community. The Internet made it possible for users to have access to large volumes of information on many disciplines, irrespective of the user's geographic allocation and in general, we can deduce that academicians use the Internet as a tool to search for more information for academic purposes. The internet is a useful tool for searching information since it is user-friendly and available for research at any time of the day, depending on

the student's needs. But there are also other factors that influence a person to use the internet to search for information and personal characteristics of individuals could influence their use of the internet. For instance, are often indicates generational gaps while income distinguishes people according to their economic power, and educational level measures individuals' intellectual development. These issues are obviously expected to affect people's use of a facility that is evolving fast, varying in cost and use sophistication, and this has always been the case. According to a survey reported in The Daily, differences by income, education and age exist in the use of internet. Students use the internet when they need to gather further information when it comes to understanding lectures and ideas for assignments. There are contradicting views from researchers on whether the internet is a good medium for students to search for information, as some agree, while some disagree with this idea. The LMS can also be described as a high-level web-based technology solution for planning, conveying and managing a myriad of learning events within an organization such as online, virtual classroom and instructor-led courses that can assess a specific learning process. LMS is also one of the solutions which are useful for both students and instructor in online learning environment. LMS are tools for student communication and interaction among students and lecturers. LMS will help the lecturers to provide their learning materials and also interactivity features such as thread discussions, shared files and forums. LMS also support management task such as delivery and tracking, examination, planning, virtual live classes and several statistical analyses. This may save lecturers a lot of time and effort without making any substantial change in teaching process. A typical LMS provides an instructor or moderator to prepare and deliver content, monitor participation by students, as well as assess student's performance online. The LMS provides interactive features to the students and the goal of an LMS is to keep track of students' progress and performance and the LMS is not just viewed as an instructional trend but as a tool that benefits the adopters as well. As a web-based learning tool, the LMS facilitates "any time, any place, any pace" access to learning content and management. the usefulness of the LMS led to high intention to use more than ease of use of LMS among learners. On the other hand, an ease of use of LMS led to high intention to use

more than the usefulness of the LMS among instructors and the usefulness of LMS influence the learners' intention to use more than an ease of use of LMS, while an ease-of-use LMS influence the instructor intention to use of the LMS more than usefulness of LMS. The LMS system can improve the quality of education optimally supported by the good adaptation of lecturers and students and improve the quality of education optimally supported by the good adaptation of lecturers and students. According to the level of satisfaction with the help of the LMS application, the paradigm may change over time, Hildayanti and Machrizzandi (2021) have found that the most frequently used LMS application is Google Classroom. Kakasevski et al. (2008) explained that LMS could be used for online teaching and learning activities and a phenomenon that was not the focus of attention was found in this study. This phenomenon involved the limitations of explaining the results of previous studies concerning the fact that lecturers and students had various perceptions in describing the role and implications of learning methods using the LMS application overall, the perception between lecturers and students has the same direction, and they can adapt over time empirically, LMS is a learning method that has a vital role in the 21st century quality of education.

Conclusion, Discussion and Summary

The present revealed towards the implication of LMS in education, had implemented an online learning method that was quite capable and easy to use and teachers are aware of the many advantages of using LMS in education that are made from LMS applications with lecture needs and teaching needs described in the study are the need to manage courses, learning materials, etc. Students monitor more about the weaknesses of using LMS applications from external aspects where poor constraints and lecturer competencies are lacking and the LMS application requires consideration of the paradigm of lecturers and students as users. Faculty need training to improve their competence in online learning processes that become funnier and innovative instead of monotonous. LMS is used as a teaching and learning tool for lecturers to become more creative and innovative in finding methods, materials, and demonstration methods using the available LMS features. Lecturers are motivated to adapt to and start leaving conventional learning methods. The quality of education

improves with LMS because students gain new learning experiences and optimized knowledge. This is different from previous findings, in which it was explained that the implications of technology on the quality of education could negatively impact the dissatisfaction of lecturers and students with the learning technology used. Thus, the quality of education may be supported by the implications of LMS if lecturers and students understand the role of LMS well. The government needs to collaborate with the private sector to build Internet access in all Indonesian regions.

Suggestions

Future studies need to consider broader external factors to obtain findings with a better research model. In this modern world where information is disseminated quickly via the internet, the LMS is an essential tool for university students as not they can keep updated with their coursework, but get instant notifications pertaining to their daily assignments. In turn, lecturers have an easier time reaching out to their students out of class hours and can instantly update them over the LMS about issues regarding their coursework. Although those using the LMS might encounter some problems, it's all part and parcel of learning and using a whole new system altogether. Education institutions should provide proper training and guidance for students and lecturers using the LMS, as well as have a team which is on-call at all times to solve any problems that may arise. Nevertheless, most university students have access to their university's LMS/similar systems that help to enhance their learning process and many have also expressed positive views about LMS, therefore proving that LMS is a necessary implementation in all 21st century education institutions worldwide.

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