

EVALUATING THE EFFECTIVENESS OF LEARNING MANAGEMENT SYSTEMS FOR B. ED STUDENTS' EDUCATIONAL DEVELOPMENT

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Abstract

Learning Management Systems (LMS) have turned into a key element in modifying the learning atmosphere especially in trainer training institutions like the Bachelor of Education (B.Ed.). Thus, this paper aims at identifying various uses and advantages of LMS in the learning process of the B.Ed. students. This paper aims to explore LMS platforms and their ability to bring flexibility into learning, improve communication, reform assessments, and incorporate significant technology in the creation of effective trainers. The paper also records the difficulties which B.Ed. students encounter when using LMS and provide suggestions for its proper application. Based on the available case studies and research, the paper has determined that LMS is a useful tool for B.Ed. students but its potential can be enhanced through proper design, training and ongoing incorporation of pedagogical best practices suited for teacher education. Keywords: Learning Management System (LMS), B.Ed., Teacher Education, Online Learning, Assessment, Technology Integration.

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Introduction

The advancements in the use of technology in the management of education has converted classroom teaching and learning into a new approach, LMS. An LMS is a software application that helps in course or training program delivery, management and tracking of learner's progress. It offers an interface to instructors and pupils to get access to course content, submit assignments, participate in forums, and get feedback. LMS platforms prove invaluable for B.Ed. programs, which are designed to help shape future teachers; they provide tools and materials that will be crucial for the development of the competencies that are necessary in today's classroom. In this paper the authors analyze how LMS can be of benefit for B.Ed. students. We examine the advantages it brings including, learning flexibility, efficient communication, efficient assessment, and adaptation of the modern learning technologies. We also consider the problems that B.Ed. students encounter when employing LMS platforms and provide suggestions for their enhancement. Based on case analysis and research data, we prove that LMS can improve the learning process and readiness of future teachers.

Benefits of LMS for B.Ed. Students

LMS platforms have many benefits for B.Ed. students to enhance their theory and practice of teaching. Below are some of the key benefits:

- **Flexible Access to Learning Materials**

One of the greatest advantages of LMS is that it offers some level of accessibility to learning materials and resources. In the B.Ed. program, the students have to do assignments along with classroom teaching activities. Such a system includes Google Classroom, Moodle, and Canvas through which learners can get course content at their convenience. This is especially helpful when steering through a tight timetable and allows learners to proceed with the course work at their own pace and revisit the lectures or learning materials whenever they want to (Iqbal,2011; Ellis & Calvo,2004).

LMS also adopts asynchronous learning which means that the students can access the material at any time other than the normal class hours. It has video lectures, e-books and interactive modules that enable students to study even when they have missed the live sessions. This is especially helpful for B.Ed. students because they have to balance internships, teaching practices and other classes at one go.

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- **Enhanced Communication and Collaboration**

These LMS platforms help the students and instructors to communicate effectively. In B.Ed. courses where feedback is extremely important in the improvement of teaching skills, LMS has tools such as discussion board, messaging system and announcement where there is constant communication. This interaction helps in creation of a group working environment where students are able to ask questions, share ideas, and get immediate feedback from the teacher (Almaiah et al. 2020). Moreover, LMS supports collaboration of learners, which is essential during teacher training. B.Ed. students solve their problems in groups and work in common spaces on group assignments in order to simulate professional teaching environments. Generally, students can collaborate in developing lesson plans, assess work of their peers as well as participate in useful discussions on teaching strategies thus improving on their knowledge through group experience (Falvo & Johnson,2007).

- **Streamlined Assessment and Feedback Processes**

Teaching practice assessment and feedback are considered a significant part of B. Ed. Programs for teacher education. LMS makes assessment easy as it provides tools that enable instructors to design, distribute and evaluate assignments electronically. Using online submission, students can submit their assignments and get the results at once, it also provides detailed feedback which can assist students to know their potential and their weaknesses (Selim 2007). For instance, quizzes and self-assessment checklists that are included within LMS help students know their comprehension of the subject matter as they receive the feedback in real-time. This is particularly so in the B.Ed. program where the learners are expected to show both subject matter knowledge and pedagogical competence. Feedback help students to correct themselves if they are wrong and improve their performance if they are given the feedback earlier before doing other harder tasks (Adzharuddin & ling,2013).

- **Integration of Educational Technologies**

Through the use of LMS platforms B.Ed. students are exposed to various technologies that they will be expected to incorporate into teaching upon their graduation. LMS applications may include multimedia content such as videos or interactive simulations or digital assignments, which are important in today's learner generation. Through the use of these tools, B.Ed. students are able to understand how best to incorporate technology in teaching(Van de Vord & Podue,2012). Furthermore, LMS platforms enable the integration of the blended learning approaches where both online and conventional form of teaching is used. For instance, a student may watch a video or go through a lesson before attending a practical lesson in class. This approach helps to use classroom time more effectively and reduces the level of knowledge by active learning (Taat & Francis,2020).

- **Personalized Learning Experience**

Another important benefit of LMS for B.Ed. students is the possibility of individual approach to the learning process. That way, it can monitor student progress and their performance; hence, instructors can modify the learning materials and activities. The adaptive learning paths that are the effective use of content and assessment based on the student's learning progress is useful for B.Ed. students to concentrate on the weak areas to improve (Kulshrestha & Pandey, 2013). Furthermore, Other features of LMS include the self-pace learning systems where students are provided with lessons that they can complete at their own time. This approach to learning is particularly useful in the teacher education program because the students come from different backgrounds and therefore have different learning profiles. Feedbacks that are given to each student and instructional materials that are recommended for each student assist in the building of students' competencies in teaching and learning (Al-araibi et al., 2019).

The Role of LMS in Developing Teaching Competencies

B.Ed. student should acquire certain skills such as classroom management, lesson planning, and instructional delivery. These skills are best nurtured through use of LMS platforms that provide simulation learning and feedback from other learners.

- **Simulation-Based Learning**

Teaching skills can be best acquired through simulated learning. Some of the recent years LMS systems contain virtual classrooms where B.Ed. learners may perform the teaching tasks, control the behavior of the learners, and use modern tools and technologies in the simulated context. This enables them to use their theories and build up their confidence before dealing with real life classes (Herrington,2006). Through such a sterilized environment, LMS assist learners to practice their skills and tactics that they would apply in a real classroom environment. This is especially practical for teaching practices as well as for the preparation of the lessons when B.Ed. students can use different teaching strategies and get the feedback from the other people including teachers and classmates.

Peer Feedback and Collaborative Learning

LMS platforms also provide for peer feedback which is important in B.Ed. programs since students learn with their peers. Self-assessments enable students to assess each other's lesson plan and teaching delivery and make comments that will help the concerned teacher improve in the future. Google Classroom and Moodle for instance facilitate this as they create avenues for students to work on assignments, share resources and engage in peer assessment (Weaver et al.,2008). This is similar to class environments where teachers work jointly and give their input to their colleague teachers. It fosters community of practice among the B.Ed. students and make them work together and help each other to grow as future teachers.

Challenges of LMS Use for B.Ed. Students

There are a number of advantages of using LMS platforms in learning but using them presents some difficulties for B.Ed. students. Some of these challenges include the concerns in the area of usability and accessibility, and the incorporation of pedagogical practices.

- **Usability and Technical Issues**

Another one of the main concerns of B.Ed. students is the applicability of LMS platforms. According to the study, most students struggle with using the interfaces due to the challenges posed by the software that may intimidate learners who are not so conversant with technology. For example, research done on students at the Virtual University of India revealed that most of the students experience log in difficulties and have difficulties with the new LMS.

Other hindrances include technical problems that may include problem an inability to access learning materials or submit assignments. Interruptions of any kind are a challenge for B.Ed. students especially when it comes to the completion of practical assignments and other course work. It is crucial for institutions to make LMS platforms easy to use and should make available support to solve these problems.

- **Accessibility and the Digital Divide**

Lack of access continues to hamper the efficient use of LMS in B.Ed. students where internet connection is either scarce or students cannot afford laptops or tablets. This digital divide hampers students, particularly those from a rural or low economic status, to gain the most out of LMSs. These are some of the implications that institutions may face when adopting LMS, and thus, they should ensure that the content is easily retrievable offline as well as the students have what it takes to access the resources. Some of the support that can be offered for device access and connectivity, which may include laptop lending programs or internet subsidies, may be useful in closing the digital divide so that every student has a chance to participate in LMS.

- **Lack of Pedagogical Integration**

Another major issue is the limited application of pedagogical concept in LMS implementation. Sometimes, an LMS is employed just as a repository to disseminate information and resources and/or to post quizzes and assignments. This hampers the possibility of LMS to enhance the quality of learning and build needed skills in B.Ed. students.

To be most beneficial, LMS should incorporate features that include group interactions, online discussions, and feedback. With these elements absent, students might think of LMS as a digitalized version of conventional, non-interactive teaching and learning methods.

Recommendations for Optimizing LMS in B.Ed. Programs

To maximize the potential of LMS for B.Ed. students, several strategies can be implemented:

- **Enhancing User Experience (UX) and Interface Design**

It is important for every learner to be able to easily use and interact with the LMS platforms so as to meet their learning needs. The institutions should pay more attention on the usability and UI design, user customization options, and easy to use navigation menu. Also, offering students tutorials and video aids will enable the students get an understanding of the functions of the platform thus reducing the time that the student would take to familiarize himself or herself with the platform.

- **Providing Comprehensive Training and Support**

There is need for institutions to put in place additional support for students and teachers. They include frequent workshops, webinars, and one on one sessions that can assist the students to identify the ways of using the LMS features. Also, offering round the clock technical assistance can assist in solving problems to the uttermost. The author also makes sure that students do not get bored or lose valuable learning time due to technical issues. Services can be delivered via chat, phone or even through help desks depending on the kind of student that needs the service.

- **Incorporating Interactive and Engaging Learning Activities**

In order for instructors to take advantage of the features of LMS, it is not enough to make lesson notes and assignments available. Lectures can be made more interesting and effective through the inclusion of real-time classes, group activities, quizzes, and videos. For B.Ed. learners some of the practical activities which can be done with the help of LMS tools may include simulating classroom activities, analyzing case studies and coming up with a sample lesson plan. Also, the elements of gamification like the use of score boards, badges, achievements and the like can also be used to encourage the students and make the classroom a fun learning environment. An LMS platform can alter theoretical lessons and turn them into exciting activities for B.Ed. students that will enable them to deal with actual teaching situations.

- **Ensuring Accessibility and Bridging the Digital Divide**

This paper suggests that to make LMS resources accessible to all B.Ed. students, institutions should eliminate the digital divide. Giving students who do not have devices like tablets or laptops, tablets or laptops and providing them with affordable or free internet can greatly improve student engagement. Also, there should be the option of learning materials and assignments to be downloaded for use even when there is no internet connection.

Cooperation with the authorities and business companies can also contribute to the enhancement of the students' access to technology in underdeveloped areas. This approach assists in the development of a digital learning environment for the B.Ed. students irrespective of their economic background.

- **Developing Faculty Training Programs**

The use of LMS is greatly influenced by faculty members. This means that, given the importance of LMS tools in the delivery of quality lessons, there is a need to design training programs for faculty so that they can be able to design better lessons that appeal to the learners. Professional development programs should shift the focus towards how best to use technology to support teaching and learning, including tactics that involve student engagement, group work, and immediate student feedback. It is also possible to improve the design of courses by offering instructors material such as workshop sessions and LMS handbooks that would allow for better course design in terms of student engagement and course achievement. The use of LMS should be extended to allow instructors to try out various features and strategies in order to improve their teaching/learning processes.

- **Leveraging Data Analytics for Personalized Learning**

These feature rich tools have analytics to monitor student performance, participation and interaction within the system. These analytics help instructors to recognize students who might be at risk and then offer the necessary assistance. For instance, if the data indicates a student is struggling in quizzes, he or she may receive a call from the instructor to provide extra materials or individual help to the student.

Instructors can also benefit from data analytics to alter their approach to learning and the content of their courses. It would be useful to track which activities are likely to most engage students and which are most likely to yield better performance so that instructors can refine their course to emphasize the most effective strategies.

Case Studies on LMS Use in B.Ed. Programs

- **Virtual University of India**

The Virtual University of India provides a strong LMS to impart distance learning to the students all across the nation. B.Ed. students use digital lectures, assignments, and assessments and can therefore study at their pace while performing their internships and teaching practice. But problems appeared when the university decided to switch to the upgraded version of its LMS. The students also complained of the usability problems they faced, including the challenges they faced when using the new interface as well as frequent log in problems. Nevertheless, the LMS has played a big deal in promoting the asynchronous learning since students can access some materials and enroll for some courses from any location. This model has been especially helpful to the learners in the remote areas who cannot be able to attend the physical classes. Some challenges have been met by the university by offering videos and help desks that can help the students to learn how to use it properly.

- **Google Classroom in B.Ed. Programs**

Google Classroom that is adopted by majority of B.Ed. programs because of its simplicity and compatibility with other Google applications for instance Google Drive and Google Docs. Google Classroom was adopted at Dr. D.Y. Patil College of Education in Pune to enhance the communication

between the students and the teacher and also to help in the submission of tasks and giving feedback in a very short time. The platform was also employed for designing engaging activities including collaborative activities in lesson planning and peer assessment activities. A benefit of Google Classroom is that it is mobile-friendly, so the B.Ed. students can check for course information and submit their assignments through their cell phones. This is especially helpful for learners who do not have personal laptops or steady internet connection in their houses. But some students pointed out that Google Classroom is good for communication, but the grading tools are not always reliable and need improvement and guidance by teachers.

- **Moodle as a Comprehensive LMS Solution**

Another widely adopted LMS is Moodle, which is also employed in teacher education programs. Moodle is an open-source software and is quite flexible, and functionalities include; discussion forums, quizzes, and assignment management functions. In a teacher education college in Malaysia, Moodle was employed to deliver a hybrid learning approach that required B.Ed. students to study the theoretical part on the internet and the practical part in a traditional classroom. Through the built-in analytics of Moodle, teachers were able to see how much their students were participating and therefore change their strategies when necessary. For example, teachers used quiz results and activity in the forum to determine which students required further assistance. This way the overall performance of the course was enhanced and the completion rates for the course also saw an uptick. But it was a tough program that needed a lot of training for the student and the faculty to work on the platform.

Recommendations for Future Research

While this paper provides insights into the usefulness of LMS for B.Ed. students, further research is necessary to explore the evolving dynamics of technology in education:

- **Longitudinal Studies on LMS Impact**

For the purpose of determining the effects of LMS usage in the future, future research should concentrate on the longitudinal research that will follow the B.Ed. students at different levels of their education. They can therefore show how continuous use of LMS affects their growth and effectiveness in the teaching profession. It would also be advisable to look at the effects of LMS on preparing the students for employment and their performance in the classroom as soon as these students commence teaching.

- **Comparative Studies on Different LMS Platforms**

Research that compares and contrasts various LMS, including Google Classroom, Moodle, and Blackboard, while focusing on B.Ed. programs is lacking. Potential research can determine which of the platforms is more suitable for the training of teachers and distinguish which of the features is useful for the practical development of teachers.

- **Focus on Accessibility and Digital Divide Solutions**

More study is required to address the digital gap, particularly in the least developed countries where many learners have no access to effective internet and technological tools. Research that evaluates the success of governmental measures, organizational initiatives, and collaborations with tech firms might help identify ways of increasing the use of LMS by disadvantaged learners.

- **Integration of Artificial Intelligence (AI) in LMS**

Future studies should be conducted on how AI integration for LMS could make it easier to offer tutoring, effective learning paths and even analytics for the students. AI can help to detect students who are most likely to require additional support and provide such students with relevant materials, including videos and tests.

Conclusion

The application of LMS is now immeasurable in current teacher education programs, as they provide B.Ed. students with a flexibility, interactivity, and personalization of learning. LMS tooling enable the assessment and feedback mechanisms that are so useful in the crafting of good teaching skills. With the use of ICT in teacher education, LMS not only readies-students for the digital class but it also offers a way to learn through actual practice in simulated situations to increase their effectiveness. Nevertheless, several problems could be preventing LMS from achieving their full potential such as usability problems, accessibility barriers, and pedagogical disintegration. Suggestions for the improvement of LMS are Improving the usability, Technical support and training, Use of fun and informative activities, and Accessibility to all the students. By implementing these strategies, educational institutions can optimize LMS usage, making it a more powerful and transformative tool for B.Ed. students.

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