

Analysis of the Utilization of Learning Management System (LMS) as Learning Media for Informatics Education Students

Moh. Syukron Hamzah¹, Maria Magdalena Beatrice Sogen², Argi Hartanto Liu³, Fransiskus Xavierius Tuan⁴

¹²³⁴Program Studi Pendidikan Informatika, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Citra Bangsa

Email: ¹syukronhamzah1@gmail.com,

Abstract

Amidst the advancement of educational technology, the utilization of learning management systems (LMS) still faces a number of obstacles, especially in terms of student perceptions regarding ease of use, feature functionality, and the level of satisfaction felt during the learning process. This study aims to evaluate in depth the utilization of Learning Management Systems (LMS) as the main tool in the learning process of students in the Informatics Education Study Program, Citra Bangsa University. The main problems studied in this study include student perceptions of aspects of ease of use, interface appearance, completeness of features, interactivity, learning effectiveness, and level of satisfaction in using LMS. The research methodology applied is quantitative descriptive, with an instrument in the form of a questionnaire distributed to 30 students from semesters 2, 4, and 6. The findings show that the majority of students gave positive assessments, especially in terms of ease of use (86.7%), interface appearance (90%), completeness of features (83.3%), interaction and collaboration (86.6%), and effectiveness in understanding the material (83.3%). However, the level of satisfaction and preference for LMS is still at 70%, indicating a need for further development. Thus, LMS can be categorized as an effective and feasible platform to be developed in the context of digital learning in higher education.

Keywords: LMS, Digital Learning, Learning Media, Students, Informatics Education

INTRODUCTION

Digital transformation in the world of education has driven a paradigm shift in learning from conventional models to technology-based approaches. Learning Management System (LMS) is present as one of the solutions that not only answers the need for flexibility but also strengthens the effectiveness and efficiency in delivering learning materials (Fitriani et al., 2020; Rizaldi & Mardiana, 2021). This platform allows integration between various learning resources, academic assignments, communication, and evaluation of learning outcomes online.

Several previous studies have shown that LMS contributes positively to increasing motivation, learning independence, and the quality of interaction between students and lecturers (Wahyuningrum & Sudibyo, 2021; Sari & Lestari, 2022; Hasanah & Ramdhani, 2021). Not only as an administrative tool, LMS also has the potential as a learning medium that is adaptive and responsive to individual learning needs.

However, the main challenges that are

still faced are the consistency of use and the user experience which is not yet fully optimal (Maulana & Rahmah, 2023; Astuti & Hardiyanti, 2023). Factors such as the availability of infrastructure, technological skills of lecturers and students, and integration of learning content are important aspects that also determine the success of LMS utilization in higher education environments.

In this context, this study attempts to evaluate the utilization of LMS based on the perceptions of Informatics Education students at Citra Bangsa University. This study is expected to provide an empirical and comprehensive picture of the extent to which LMS supports the learning process and becomes the main alternative in the digital education ecosystem.

METHOD

This study uses a quantitative approach with a descriptive design. Respondents were 30 active students from semesters 2, 4, and 6 of the Informatics Education Study Program. The instrument used was a Likert-scale

questionnaire (1 to 5), which was designed to measure students' perceptions of five main aspects of LMS use: ease, appearance, features, learning effectiveness, and satisfaction and preference.

The instrument is compiled based on indicators that have been validated in similar studies (Adzharuddin & Ling, 2013; Anggraeni & Salsabila, 2022) and has been tested in an initial trial to ensure its reliability. The data obtained were analyzed descriptively quantitatively by presenting the percentage of each respondent's response to each statement item, then classified into six aspect categories to facilitate interpretation of the results. The analysis was also carried out qualitatively

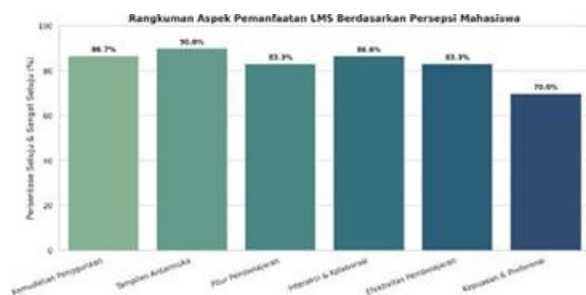


Figure 1. Diagram of the main aspects of the LMS utilization questionnaire results.

This finding is in line with previous studies showing that LMS plays a major role in supporting the effectiveness of online learning (Fitriani et al., 2020; Rizaldi & Mardiana, 2021). The studies of Wahyuningrum & Sudiby (2021) and Hasanah & Ramdhani (2021) stated that Moodle-based LMS has succeeded in increasing student participation and mastery of the material.

Furthermore, the study by Setiawan & Fauziah (2021) emphasized that the presence of discussion features, feedback, and the availability of structured materials are important factors in creating a conducive online learning environment. In this context, LMS is not just an academic administration platform, but a pedagogical tool that can facilitate meaningful two-way interactions.

However, the aspect of satisfaction and preference for LMS which is at 70% shows that although LMS functionality has met basic

limited by linking the findings to previous theories and studies.

RESULTS AND DISCUSSION

The results of data processing show that students generally have a very positive perception of the use of LMS. The summary of the results of the six main aspects is as follows:

1. Ease of use and accessibility: 86.7%
2. Interface display: 90%
3. Learning features: 83.3%
4. Interaction and collaboration: 86.6%
5. Learning effectiveness: 83.3%
6. Satisfaction and usage preference: 70%

learning needs, user convenience and feature innovation are still weak points that need to be improved (Maulana & Rahmah, 2023; Astuti & Hardiyanti, 2023).

These results also reflect the need for a more personal and integrative pedagogical approach in the implementation of LMS. The active role of lecturers as digital learning facilitators also determines the success of LMS in improving student learning outcomes. In addition, future LMS development needs to consider technological aspects mobile and cross-device accessibility, considering the high mobility of today's students.

In the long term, the success of LMS implementation depends not only on the technology itself, but also on the institution's commitment to supporting human resource capacity building and the development of relevant and engaging content.

CONCLUSION

Based on the results of the analysis of Informatics Education students' perceptions of the use of Learning Management Systems (LMS), it can be concluded that LMS has a significant role as a learning medium. This is reflected in the high percentage of respondents who agreed and strongly agreed with aspects of ease of use, interface appearance, learning features, interaction, and flexibility in the learning process.

Overall, LMS provides easy access and support for students' academic activities,

especially in the context of online learning. However, there are indications that aspects of satisfaction and preference for LMS can still be improved. This indicates the need for the development of more interactive features, improved user experience, and further training for lecturers and students in utilizing LMS optimally.

Thus, the utilization of LMS is on the right track, but still requires continuous improvement to achieve maximum effectiveness in supporting the learning process in higher education. This research also serves as a basis for developing more strategic digital learning policies in the future.

SUGGESTION

Based on the research results, it is recommended that educational institutions optimize the use of LMS by providing ongoing training for lecturers and students to improve their understanding and utilization of LMS features to the fullest. In addition, LMS developers are advised to improve the user interface and add interactive features to increase user engagement and satisfaction.

Further research can involve a larger and more diverse number of respondents and conduct a comparative analysis between LMS platforms used in higher education environments to obtain a more comprehensive picture of the effectiveness of LMS as a learning medium. Long-term evaluation of the impact of LMS on student learning outcomes and soft skill development is also an important area for further study.

ACKNOWLEDGEMENT

The author would like to thank the Lecturer of Research Methodology Course for his guidance and direction in the process of compiling this article. Gratitude is also expressed to all students of the Informatics Education Study Program, Citra Bangsa University who have participated in filling out the questionnaire, so that this research can be completed properly.

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