

Learning Management System Difficulties during the Learning Process in Higher Education

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ABSTRAK

Dalam penerapan sistem manajemen pembelajaran, dosen harus menyiapkan bahan dan komponen yang diperlukan. Namun faktanya terdapat 63% kesulitan dalam menyusun materi pada sistem pengelolaan pembelajaran. Penelitian bertujuan untuk menganalisis dampak pelaksanaan pembelajaran menggunakan LMS di perguruan tinggi dan mencari solusi untuk mengatasi hambatan dan kesulitan dalam melaksanakan pembelajaran menggunakan sistem manajemen pembelajaran. Metode penelitian yang digunakan adalah survei dengan menyebarkan instrumen. Teknik pengumpulan data dengan menyebarkan instrumen kepada 132 orang yang terdiri dari dosen dan mahasiswa yang terlibat langsung dalam proses pembelajaran dan melakukan wawancara acak untuk memastikan kebenaran data hasil survei. Teknik analisis menggunakan SPSS Versi 25.0 dengan membentuk diagram batang, diagram garis, dan diagram lingkaran serta menginterpretasikannya. Hasilnya, ditemukan kendala, kesulitan, dan dampak penggunaan sistem manajemen pembelajaran selama proses pembelajaran. Kendala dan kesulitannya terletak pada penyusunan materi, model, dan alat penilaian yang digunakan tidak diberikan kepada siswa melalui LMS. Materi tidak dituangkan dalam media yang digunakan dan tidak diberikan penilaian kepada siswa, sehingga dampaknya siswa tidak mampu mengukur kemampuannya. Kesimpulannya, setiap dosen harus mempersiapkan materi, model, dan instrumen penilaian sebelum menggunakan sistem manajemen pembelajaran dalam melaksanakan pembelajaran mata kuliah.

ABSTRACT

The implementation of learning management system, lecturers must prepare the necessary materials and components. However, the fact is that there are 63% difficulties in compiling material in the learning management system. The research aims to analyze the impact of implementing learning using LMS in higher education and to find solutions to overcome obstacles and difficulties in implementing learning using a learning management system. The research method used is a survey by distributing instruments. Data collection techniques were by distributing instruments to 132 people consisting of lecturers and students who are directly involved in the learning process and conducting random interviews to ensure the correctness of the data from the survey. Analysis techniques using SPSS Version 25.0 by forming bar charts, line charts, and pie charts and interpreting them. As a result, the obstacles, difficulties, and impacts of using the learning management system during the learning process were found. The obstacles and difficulties lie in the preparation of materials, models, and assessment tools used which are not provided to students through the LMS. The material is not stated in the media used and is not given an assessment to students, so the impact is that students are unable to measure their abilities. In conclusion, every lecturer must prepare materials, models, and assessment instruments before using the learning management system in implementing course learning.

1. INTRODUCTION

Current technological developments influence methods in the learning process at all levels, including universities. Changing methods in the learning process from face-to-face to online implementation requires educators to search for and find effective media to help deliver the material. Basically, by using technology as a means of delivering learning material, equipped with the tools or components available on the internet media used today, the learning process should be effective (Gawer, 2021; Matete et al., 2023). In the 4.0 revolution towards 5.0, the development of information and communication technology is increasingly rapid and has penetrated various aspects of human life, especially influencing aspects of the education sector, where the tools used in the learning process are increasingly complete and varied. In the learning process in Indonesia, many educators are currently developing media to help the distance learning process, such as learning management systems (Adebayo et al., 2022; Suyadi, Nuryana et al., 2022). There is a big emphasis from several educational institutions in Indonesia to use Learning Management Systems (LMS) as a tool in carrying out the learning process and interacting with students in higher education environments. The development of learning management systems provides great opportunities for the effective development of educational administration and management and the learning process in higher education with the hope of becoming better (Al-Mamary, 2022; Ghani et al., 2022). Learning Management System (LMS) is a multimedia-based educational system (technology that includes text, images, audio and video) which is able to make the presentation of a topic interesting, not only monotonous but easier for students to understand the material (Kumar et al., 2021; Taufan, 2022).

Currently, many experts are trying to develop and test the Learning Management System at all levels, especially for students in higher education in managing administration and communication. But keep in mind that the Learning Management System (LMS) is only a tool in the learning process. According to previous study there are five benefits that can be achieved in the learning process through the use of learning management systems, namely: 1) facilitating and expanding access to the implementation of education, 2) increasing equality and equity in education, 3) increasing the quality and effectiveness of learning, 4) increasing teacher professionalism and 5) increasing the effectiveness and management efficiency, governance and management of education. Knowing and realizing the enormous benefits of the Learning Management System (LMS) in education, UNESCO experts recommend to all countries; especially developing countries (Behera et al., 2022; Mncube & Mthethwa, 2022). In increasing the various resources needed for the development of information and communication technology in various policies, strategies, and education implementation activities, currently, several universities are focusing on implementing learning with the help of a Learning Management System (LMS) and continuing to develop the tools and components provided in management system used by each university in Indonesia as the core in helping deliver lecture material (Ramalingam et al., 2022; W. Wu et al., 2022).

In Indonesia, based on the Development Plan for the 2020-2024 National Medium Term, it is emphasized that the fourth priority of the Ministry of Education and Culture is technology development (Gupta et al., 2022; Sambodo et al., 2022). According to previous study the focus of this technology is to help all humans, especially lecturers and students in the system carry out the process of implementing education and their duties better (Olan et al., 2022). The Indonesian Ministry of Education and Culture has the same goal as universities, namely being able to provide excellent service, one thing that must be done is to develop information and communication technology through a Learning Management System (LMS) with more effective implementation. Through the use of information and communication technology in the field of education which includes the role of information and communication technology as educational materials, teaching aids, educational facilities, efficiency standards, supporting educational management, educational unit management tools, finding reference sources, and educational infrastructure. In connection with the above, the phenomenon of using information and communication technology in learning in higher education institutions is getting better, even in the curriculum information and communication technology plays a very important role in implementing learning through the Learning Management System (LMS). The curriculum shows that learning applies the principle that anyone, whether lecturers, students, or anywhere, can learn just like in class. Therefore, the use of a Learning Management System (LMS) is very important in terms of effectiveness and efficiency.

The Learning Management System (LMS) can play two roles in learning, namely: (1) as an educational presentation medium, for example in the form of PowerPoint slides and animations with flash programs. (ii) As an independent teaching or e-learning method, for example, students are given assignments to read or search for sources on the internet, submit answers to assignments, and even try and work on learning material. Through e-learning, learning is no longer limited by space and time. Learning can be done anytime and anywhere. This encourages students to analyze and synthesize

knowledge, explore, process, and use information, and produce their writing, information, and knowledge. To help students develop and gather their knowledge, without direct guidance from the lecturer, learning situations have been prepared beforehand (Assen & Otting, 2022; Slovaček & Čosić, 2020). The role of the Learning Management System (LMS) can be maximized by activating it through learning design, learning theory, and message design so that it can produce a good learning experience for students.

However, in reality, the implementation of the Learning Management System (LMS) in higher education is still in its early stages and has not been utilized optimally and evenly. The obstacle is the uneven distribution of use and design that supports the implementation of the Learning Management System (LMS) in the education sector and the weakness of human resources in using the Learning Management System (LMS) in the online learning process in higher education, making learning outcomes and student understanding in courses difficult (Asamoah, 2021; Müller & Wulf, 2020). Another fact in the research that the learning process is not yet effective, there are 62% of the opinion that the learning process using a learning management system is not good enough (Pal & Vanijja, 2020). This fact does not stand alone in research state that the learning process with the use of learning management systems only has an impact of 23% on the success of the learning process (Díez et al., 2020). In other research said that learning management systems can remote the distance learning process and become effective (Shim & Lee, 2020).

The urgency of research is very important, considering that currently, almost all universities have directed the learning process towards the use of learning management systems students' understanding and interest in learning are low. The gap between theory and reality in the field makes this research interesting to find out the findings, whether users and students understand how to use this media, and how students respond to learning using this media. In this case, this research aims to analyze the effective students and lecturers are in using management systems in the teaching and learning process. The novelty of this study is focus on obstacles and difficulties of students and lecturers in using learning management systems.

2. METHOD

The research method uses a survey method by distributing standard question instruments and has been validated by previous studies (Iflaifel et al., 2020; Nurse-Clarke & Joseph, 2022). The research subjects were three universities in Jakarta which were chosen randomly from all universities that had used learning management systems in the teaching and learning process and those involved were lecturers and students who were directly involved, experienced, experienced and used the use of learning management systems as a communication tool for the learning process. The number of lecturers and students surveyed was 132 people from all study programs spread across various faculties and study programs that use the Learning Management System (LMS). Students and lecturers totaling 132 were the main sources for obtaining data and were chosen randomly without paying attention to the faculty, study program, and student semester.

The data collection technique in this research was a survey. The instrument is distributed using links by designing Google Forms. This research develops question and statement instruments based on indicators which are a tool to measure the success of using the learning management system in the learning process. The research shared the link with lecturers and students via email and students' and lecturers' personal WhatsApp. The instruments used are standard and are prepared based on indicators of the successful use of the learning management system that has been developed (Díez et al., 2020; Pal & Vanijja, 2020; B. Wu et al., 2020). Surveys are used to find out facts and realities in the field by seeing a greater number of participants giving opinions. The research instrument was prepared on Google to make it easier for researchers to obtain information from sources by grouping data in the form of bar, line, and pie charts. By sharing the Google From link, it is hoped that the resource person can respond objectively without any pressure from other people. The survey was conducted on 132 people consisting of lecturers and students who were chosen randomly (Degner et al., 2022; Hansen & Tummers, 2020; Meyerowitz-Katz & Merone, 2020). The data from the survey does not stand alone, this research follows up on the results of the survey given to lecturers and students by conducting interviews with 15 informants to confirm the truth of the responses of 132 informants in the survey. Both data, namely the survey and interviews, are one unit in concluding. The indicators that were the basis for compiling the survey instrument and composing questions for the interview is show in Table 1.

Table 1. Research Indicators

No	Indicator
1	Preparation of implementation plans
2	Preparing lecture materials (modules or teaching materials)
3	Completeness of teaching aids
4	Adjust to lecture time and planning
5	Preparation of assessment indicators and assessment rubrics
6	There is an evaluation and analysis sheet
7	Implementation of Timely Learning
8	Implementation of the material through the Learning Management System
9	Problem analysis and learning evaluation and assessment processes

The data analysis technique is analyzed using SPSS Version 25.0 (Ustaoglu et al., 2020; Campos et al., 2020). Data obtained from the survey is assessed by the source narrative by giving a Likert scale score from point 1 to point 5. Point 1 is very bad, point 2 is not good, and point 3 is quite good, point 4 is very good. Good and point 5 is very good. The data that had been filled in by the resource person was collected and grouped based on research indicators, and then the researcher analyzed it using SPSS Version 25 and formed bar charts, line charts, and pie charts. Before analyzing with SPSS, some stages are carried out, namely collecting data by distributing instruments, data that is not filled in is discarded or reduced and then analyzed. Data from the survey were aligned with interview data. Interview data was collected, reduced, and tabulated by coding to facilitate research in drawing conclusions and aligning interview data with survey data. The two data are looked at, the intersecting data becomes the results, and findings and becomes the basis for concluding.

3. RESULT AND DISCUSSION

Result

This research describes the findings from the survey results obtained in this research to find and describe the Learning Management System (LMS) learning process that has been implemented in higher education for students by lecturers, but several obstacles, obstacles, and difficulties were found and must be immediately repaired and developed management, training, and preparing tools in the form of modules in the learning process if using the Learning Management System (LMS). The findings of the survey results from respondents' responses to the process of using the Learning Management System (LMS) which has been grouped and analyzed using SPSS Version 25 is show in Figure 1.

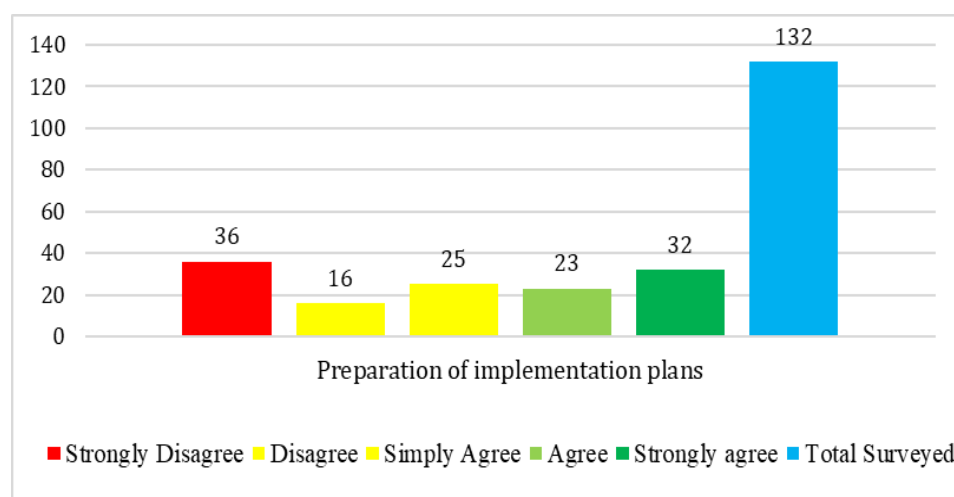


Figure 1. Preparation of Implementation Plans

Figure 1 shows that of the 132 sources consisting of lecturers and students who provided responses and assessments of the learning process using the learning management system as measured by preparation indicators in planning before implementation, 36 people answered that they strongly disagreed with the preparations made. in learning and with the use of learning management systems as a tool in delivering material and communication in higher education, and 16 people answered that they

disagreed. In this case, 52 respondents thought that the learning implementation plan had not been prepared properly and correctly with the help of the Learning Management System. Lack of preparation in developing a Learning Management System has an impact on structuring and managing the learning process so that it runs more smoothly.

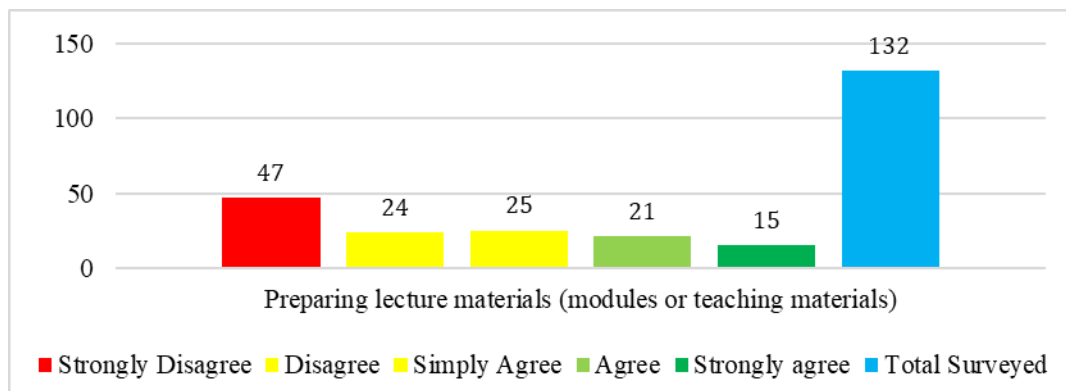


Figure 2. Preparing Lecture Materials (Modules Or Teaching Materials)

Figure 2 shows the indicators for lecturers in preparing material in the form of modules and teaching materials. It can be seen that not all lecturers have prepared material for the courses taken by students. In terms of expectations, before learning using the learning management system, lecturers must prepare the material according to the needs of the features and components that already exist in the Learning Management System. Learning Management System (LMS) tools. The survey findings in this study were that 47 people strongly disagreed and 24 people disagreed. This became controversial because the number of participants who disagreed was greater than respondents who agreed with the preparation of the material carried out by the teaching staff. When confirmed by sources through interviews, respondents admitted that when teaching students, they did not fully understand the material in the courses they were taking, all the material was included in the Learning Management System, but the material provided was not complete and tended to require quite a lot of time to explain money. The material provided is not strong enough to guide students to study independently. Completeness of teaching aids is show in Figure 3.

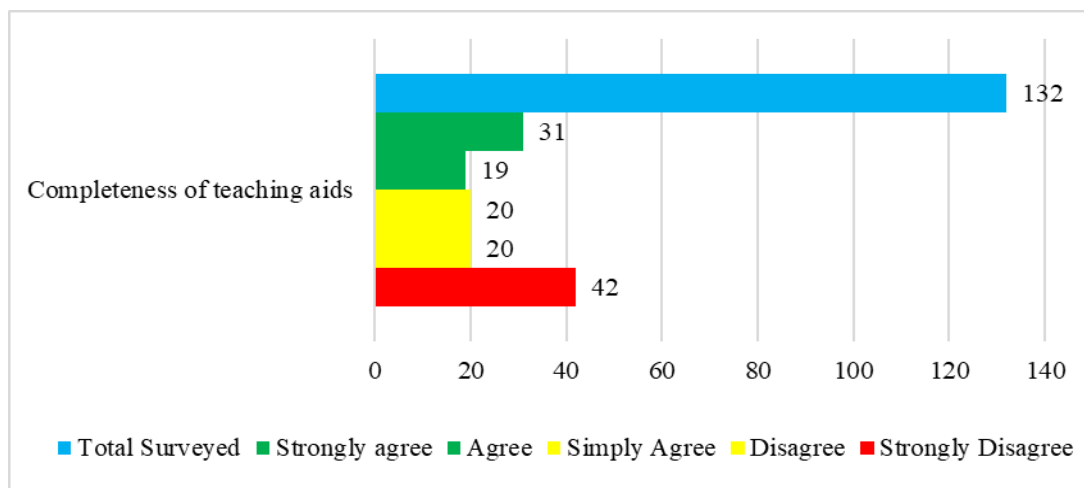


Figure 3. Completeness of Teaching Aids

Based on Figure 3, many respondents disagree with the tools used with learning management systems as tools for the learning process. Respondents also disagreed with the teaching aids used in the Learning Management System media, such as incomplete materials and inaccurate models. There were 42 people who strongly disagreed and 19 people who disagreed with the assistance provided. Based on the results of interviews with informants, they hope that there will be tools in the Learning Management System such as videos that can be accessed by students and other colleagues. Adjust to lecture time and planning is show in Figure 4.

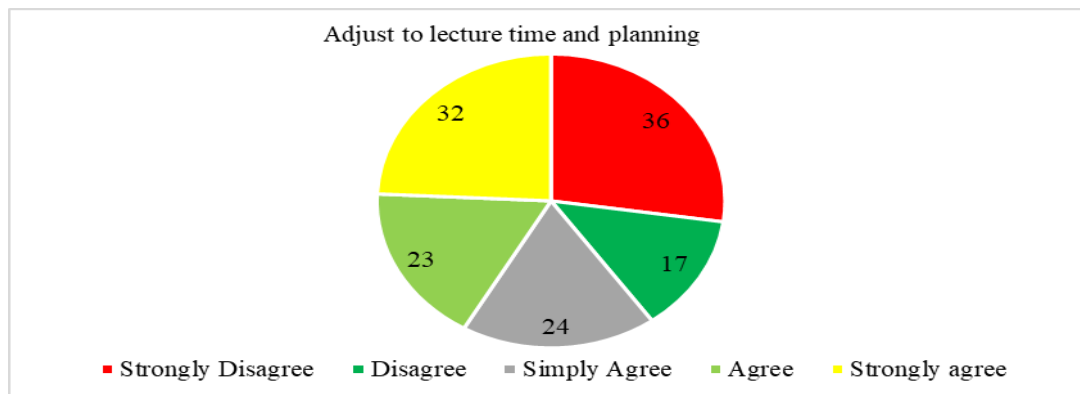


Figure 4. Adjust to lecture time and planning

From Figure 4 it can be seen that not all lecturers have prepared indicators, rubrics, assessment instruments and placed them in the components in the Learning Management System. This can be seen from the respondents' responses, there were 36 people who strongly disagreed and 17 people who disagreed in terms of indicators, rubrics and lecturer assessment instruments. If a total of 53 respondents expect the instrument to be in a learning management system that is used as a tool for the lecture process. With the assessment instrument in the media used, it can be accessed by students in the Learning Management System and makes it a measuring tool for measuring student personal abilities and success. Preparation of assessment indicators and assessment rubrics is show in Figure 5.

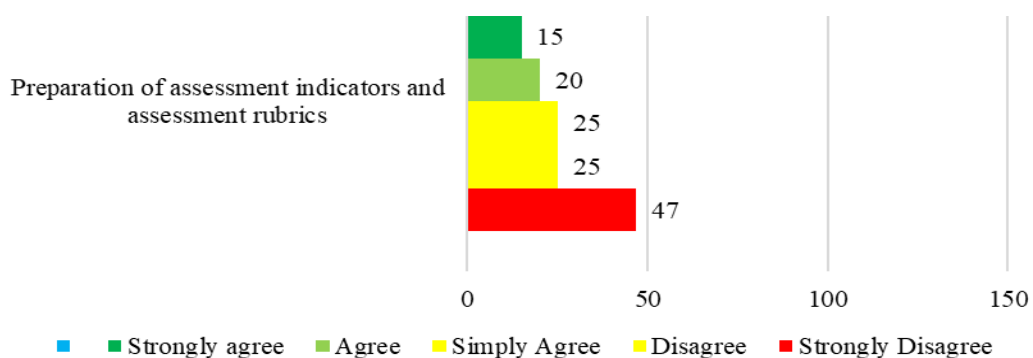


Figure 5. Preparation of Assessment Indicators and Assessment Rubrics

Figure 5 shows the expectations and desires of the respondents for each material taught, there is an evaluation form used by the instructor in the Learning Management System course. From Figure 5 it can be seen that there were 47 people who strongly disagreed and 20 people who disagreed in the form of evaluations carried out by lecturers during the learning process and during the final assessment process of learning. The results of the interviews intersect with the results obtained in Figure 5. The respondents hoped that the teaching staff would make an evaluation form and an analysis process for the abilities of students who did not understand the material provided in the Learning Management System. Evaluation and analysis sheet is show in Figure 6.

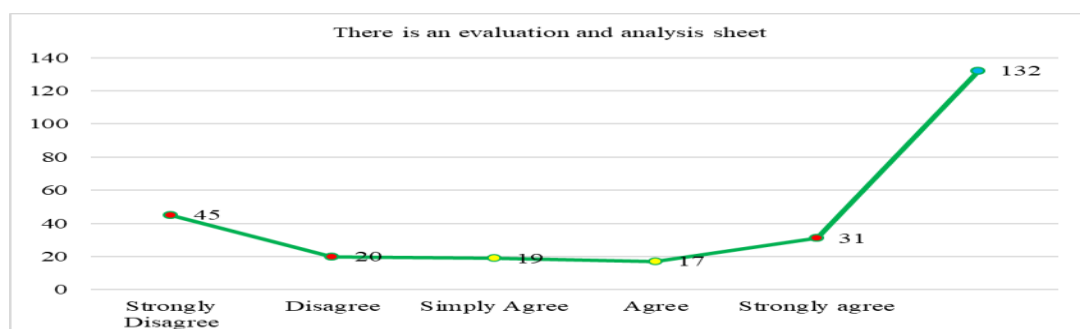


Figure 6. Evaluation and Analysis Sheet

Based on Figure 6 it can be seen that respondents considered timeliness to be very necessary in the Learning Management System. Respondents assessed that currently 45 people strongly disagree and 20 people disagree with the management of time management in the Learning Management System. Respondents hoped that there would be a time-sharing system and timeliness in the Learning Management system and that it would be accessible to students. Implementation of timely learning is show in Figure 7.

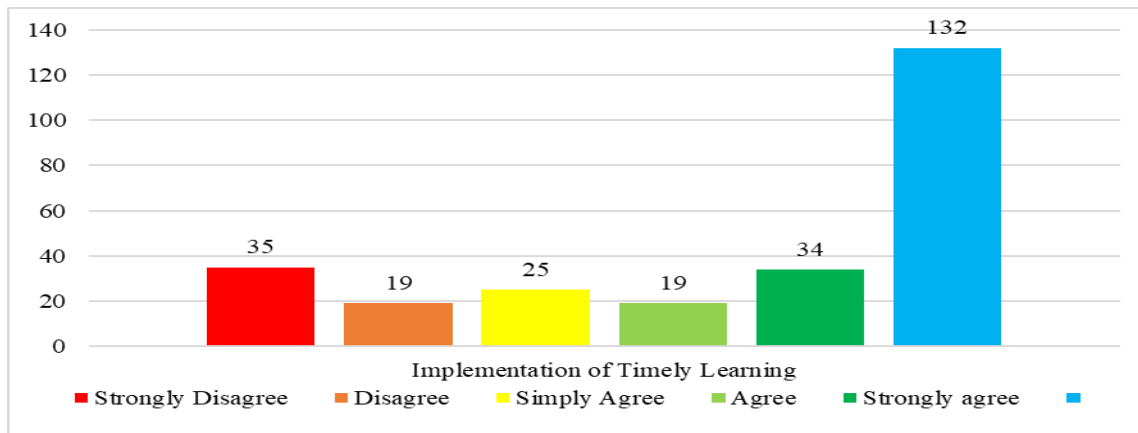


Figure 7. Implementation of Timely Learning

Figure 7 shows that respondents assess the process of implementing learning using the Learning Management System is not optimal. The respondents gave an assessment, of the 132 people who gave responses there were 35 people who strongly disagreed and 19 people said they did not agree with the implementation process. Implementation constraints arise because the preparation process is not carried out thoroughly and contains all the learning tools that will be used in the Learning Management System. Teachers still don't have modules, teaching materials or materials outlined in the Learning Management System. This is deemed necessary for the smooth implementation of learning through the media. Implementation of the material through the learning management system is show in Figure 8.

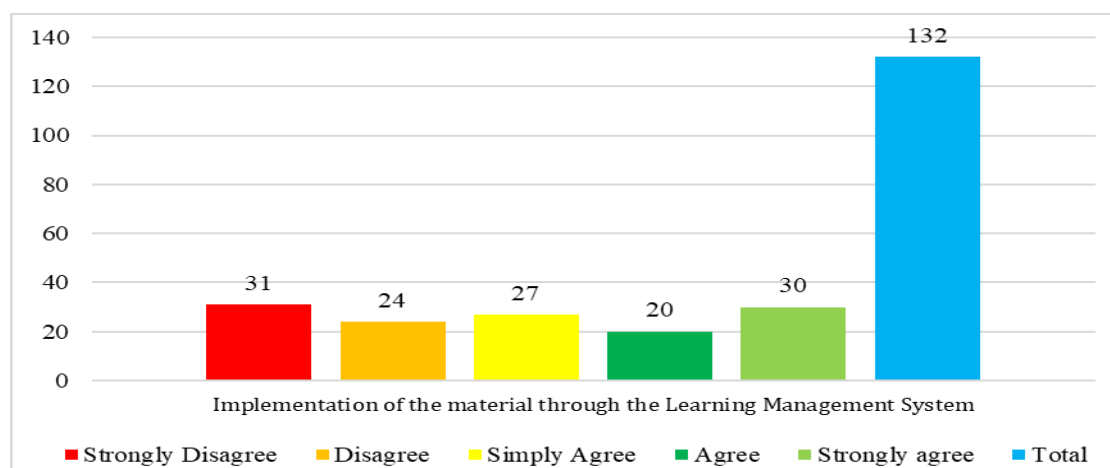


Figure 8. Implementation of the Material through the Learning Management System

Respondents argued that the implementation of course materials through the help of learning management systems used was less efficient. Based on Figure 8, it can be seen from the 132 respondents, there are 31 people who strongly disagree and 24 people who do not agree if the implementation of lecture material and communication through the media learning management system is used. When the research conducted interview sessions, the respondents actually had no objection to learning using a learning management system. However, the informants believed that they hoped that the material being studied would have been included in the system management learning media before the lectures began. Results of forms of analysis and evaluation is show in Figure 9.

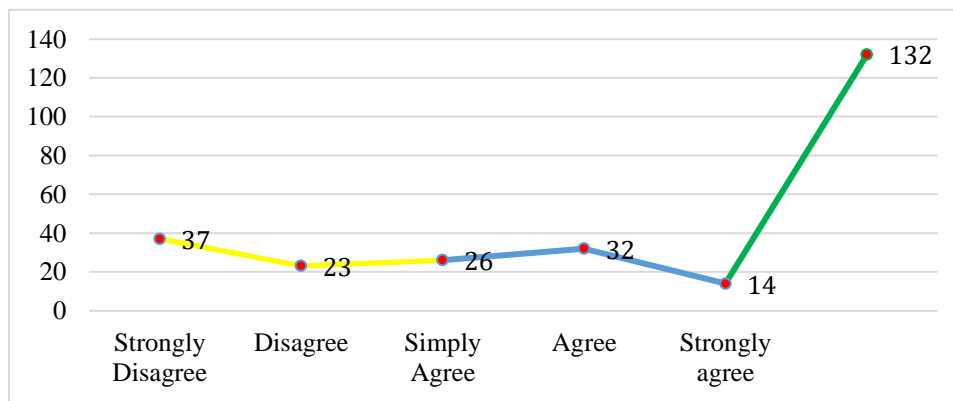


Figure 9. Results of Forms of Analysis and Evaluation

The form of analysis and evaluation in the learning process does not work as expected. This is because the form of analysis used and the form of evaluation used are not visible in the Learning Management System (LMS) system. Based on [Figure 9](#), there are 37 people and 23 people who strongly disagree and disagree with the form of analysis and evaluation carried out by the lecturer through the Learning Management System (LMS). The interviewees during the interview hoped that there would be a process of analyzing the system and developing the use of the system to make it better.

Discussion

The findings from the results of this study are in line with the findings of previous research state that the use of the learning implementation process with the help of learning management systems has not been maximized in higher education ([Alturki & Aldraiweesh, 2021](#)). The use of Learning Management System (LMS) by combining several learning models has not been effective and efficient. Although in the findings the material prepared by the lecturer can be accessed easily by students. However, the teacher must validate the learning tools in the Learning Management System, namely by preparing a structured learning process plan that is easy for students to understand ([Lampropoulos et al., 2019](#); [Zainuddin & Perera, 2018](#)). This has not been fully assessed by students. Another impact is that students cannot achieve WHAT is expected from the material being taught, this creates new problems and results in not optimal achievement and learning outcomes. During the interview session, the informants argued that the time needed to prepare a learning implementation plan was very limited and the lecturers had limitations in using information and communication technology in the learning process in system management learning.

This is a separate obstacle in the learning process using the Learning Management System. The lack of thorough preparation has an impact on the readiness of implementing learning in learning management systems. This is one of the causes of the course learning process not running smoothly and having a negative impact on achievement and class management by lecturers ([Al-Mamary, 2022](#); [Raković et al., 2022](#); [Ziraba et al., 2020](#)). Inadequate material preparation creates new problems for students' ability to understand and obtain learning outcomes in courses. Inappropriate visual aids can be an obstacle in the implementation of course material. The lack of precise tools used in implementing learning has a negative impact on understanding and improving student learning outcomes ([Ariono et al., 2022](#); [Tao & Gao, 2022](#)). During interviews with informants, many found it difficult to measure their abilities because the measuring instruments used in the material presented by the lecturers were not in the Learning Management System. Previous study state that rubrics and assessment instruments must be prepared before the implementation of learning begins ([Shipman et al., 2012](#)). This aims to support and develop the learning improvement process so that it is more effective and more efficient and easily understood by students in the subjects being studied. Evaluation is a way to find out the obstacles and difficulties in understanding the material studied in courses that have been taken by students ([Akeed et al., 2022](#); [Hwang et al., 2022](#)).

The time that is set and used in the system will have an impact on student learning discipline. From the results of interviews with the informants, they argue that the current system is not in accordance with what is expected. Lecturers are not yet perfect in using and preparing the Learning Management System for the learning process. The learning model used is also not perfect and has not attracted students' interest to study more actively ([McComb & Jablokow, 2022](#); [Yeh et al., 2019](#)). The

material studied by students is still in the difficult category to understand and consequently has an impact on the smooth running of the learning process which is not effective. This is in line with opinion state that the media used must continue to be developed. Respondents also hoped that lecturers would be able to put evaluation forms into the Learning Management System (LMS) with the aim that students could measure and prepare themselves for what they did not know or had not mastered (Lumbantoruan, 2022). This is in line with the opinion state that every lesson must be evaluated and analyzed for its constraints and difficulties by preparing measuring instruments (Harpe, 2015).

The lecturer also assessed that student had not prepared lecture material and presented it in the Learning Management System in the form of teaching modules. Students also assessed that setting lecture times and being consistent with the implementation of the time specified in the Learning Management System was mandatory. all, both students and lecturers, lecturers have not prepared assessment indicators and assessment rubrics in the Learning Management System, lecturers have not prepared evaluation forms, Exact Learning Implementation has not been carried out with Time, it has warped. Material Learning Implementation through the Learning Management System (LMS) and Problem analysis as well the process of evaluation and assessment of learning has not been carried out properly. This is considered very necessary if using the Learning Management System as a tool in the learning process. Previous research said that the assessment process and evaluation process must be prepared properly and correctly before implementing learning to students (Syakur, 2020). However, the facts in this study found that the assessment process was not well prepared and the form of evaluation was not in the learning management system used. This finding contradicts previous findings which said the assessment and evaluation process was optimal (Laho, 2019).

This research means that lecturers play an active role in preparing material in the form of modules and teaching materials prepared by the lecturers themselves, lecturers also prepare assessment indicators that are appropriate to the courses taught by the lecturers. Through this research, students are also given training in using the learning management system and the impact is to increase students' understanding in using and operating the learning management system. This research has implications for improving the learning process when using a learning management system as a tool in delivering material to students. Another weakness and recommendation from this research is that the research does not develop a learning model when using a learning management system. It is hoped that in future research there will be research that develops appropriate models to be used in the learning process in higher education when using a learning management system. This research suggests that each lecturer can prepare measuring tools in the form of instruments to analyze students' understanding abilities and difficulties during the learning process using the Learning Management System.

4. CONCLUSION

In conclusion, the obstacle to implementing the use of the Learning Management System (LMS) is the lack of readiness for learning tools. Preparation of learning tools must be prepared as well as possible, starting from learning implementation plans, teaching aids, assessment instruments, assessment rubrics, materials in the form of modules or teaching materials, and evaluation forms and everything is contained in the Learning Management System. Lecturers must also create learning projects and videos related to the subjects taught. Lecturers must also create a form of evaluation in the form of an instrument for measuring the learning process using the Learning Management System for each material taught.

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