.

Cadets' Perception of Learning Management System

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Article Info	ABSTRACT
	This study aims to assess the perceptions of cadets regarding the Learning Management System Platform so that its implementation is more optimal and can be implemented comprehensively and completely. This study uses a qualitative descriptive research method. In this study, the number of cadets sampled was 85 respondents or 49% of the population using a random sampling technique. The data collection technique used in this study was the questionnaire technique. The result of the study shows that it can be concluded that the cadets of the West Sumatra Maritime Polytechnic have a good perception of the Learning Management System. The Learning Management System can be used as an online learning management platform.

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1. INTRODUCTION

Education is one of the fields that is not free from the influence of the development of information and communication technology. The development of information and communication technology has a major impact on the progress of the world of education. Education is currently experiencing very rapid disruption. Shwab (2016) stated that the new era in the globalization of the industrial revolution 4.0 brings fundamental changes that are different from the order of life in the previous century. In line with this, the Ministry of Education and Culture has formulated a 21st century learning paradigm that prioritizes students' ability to find out from various sources, formulate problems, be able to think analytically and cooperate and collaborate in solving problems (Research and Development of the Ministry of Education and Culture, 2018). In addition, in the world of maritime education, educational curriculum standards have been set that must be met by all maritime educational institutions throughout the world based on the Standard of Training Certification and Watchkeeping for Seafarers (STCW) 1978 Amendment 2010. In the Standard of Training Certification and Watchkeeping for Seafarers (STCW) code Section B-1/6 concerning guidelines for implementing training/education and assessment, it is stated that maritime educational institutions can use distance learning and e-learning in implementing education/training and assessment. Then in 2021, the BPSDM Perhubungan issued a policy on guidelines for organizing distance learning in the field of shipping at universities, schools, centers and educational and training institutions as stated in PK 01/BPSDM-2021.

Following up on this, the West Sumatra Maritime Polytechnic as one of the educational institutions under the auspices of the Transportation Human Resources Development Agency has an online learning media system using the Learning Management System (LMS). LMS is a web-based platform used for distance learning and has interactive learning features, automation in administration, management, and reporting of learning outcomes and lesson content (Turnbull, Chugh, and Luck, 2020). Surjono (2013) stated that LMS is a software for managing learning. This digital platform was developed to facilitate the learning process that is not limited by space and time (Hafidzah, 2020). This means that the Learning Management

System (LMS) integrates features in delivering material comprehensively and can manage catalog features, material delivery and quizzes in a software unit (Riaddan El Ghareeb, 2008).

The LMS platforms include Canvas, Moodle, Edmodo, and others (Yana, D, 2019). The LMS platform has several advantages, namely flexibility (not bound by time and place, wider reach, independent, cost-saving, more intense interaction, easier to improve and store materials, and ongoing motivation (Setiawan, 2018). The results of Saifuddin's (2017) study show that E-learning plays a major role in implementing learning. A study conducted by Sofyana & Rozak (2019) concluded that students have a greater interest in using online learning than conventional learning and 78% of students stated that online learning is more effective than conventional learning.

However, the implementation of learning through LMS needs to be studied more deeply by looking at the perception of cadets towards the LMS at the West Sumatra Maritime Polytechnic. Perception is essentially a process of knowing things around them through the five senses that are influenced by their experiences so that they are aware of what has been observed which ultimately influences their attitudes and behavior (Faisal, 2011). Meanwhile, Saiful (2015) defines perception as an interpretation of sensory stimuli so that it gives rise to meaning about the object. In other words, one of the indicators that is closely related to the learning process and learning outcomes is the perception of cadets (Najichun and Winarso, 2017; Marhento, 2015; Saputra and Syafik, 2016). This means that cadets who have good perception will generally optimize the independent learning process so that they can improve their learning outcomes. In addition, perception can also influence a person's interest in determining a choice (Wardana, 2018). Based on the above, the researcher conducted research on the perceptions of cadets regarding the Learning Management System Platform so that its implementation is more optimal and can be implemented comprehensively and completely.

2.   METHOD
Research design and sample

This study employs a quantitative research method to measure cadets' perceptions of the Learning Management System (LMS) at the West Sumatra Maritime Polytechnic. The primary data collection instrument is a structured survey questionnaire that includes both closed-ended questions to collect numerical data and open-ended questions to gather qualitative insights and reasoning behind the responses. This mixed approach allows for a more comprehensive understanding of cadets' perceptions, combining statistical analysis with thematic exploration (Creswell, 2014). The questionnaire instrument in this study combines open-ended questionnaires and closed questions. Meanwhile, the indicators used in compiling the questionnaire in this study were adapted from the McGill model (2014) and adjusted to the needs of the study. The perception of cadets towards LMS at the West Sumatra Maritime Polytechnic was reviewed from the realm of use, usefulness, use of LMS features and difficulties in using LMS.

Data analysis

This study employs a quantitative research method to measure cadets' perceptions of the Learning Management System (LMS) at the West Sumatra Maritime Polytechnic. The primary data collection instrument is a survey questionnaire designed to collect numerical data on cadets' perceptions. Open-ended responses were analyzed using thematic analysis, as outlined by Braun and Clarke (2006). This process began with familiarization, where all responses were read thoroughly to gain an overall understanding of the data. Next, the process of coding was conducted, during which recurring themes or patterns were identified within the responses. These codes were then organized into broader categories, such as "Ease of Use Challenges" or "Benefits of LMS," in the categorization stage. Finally, the themes were interpreted by summarizing the key insights and linking them to the quantitative findings to provide context and deeper understanding. The results from both the quantitative and qualitative analyses were then integrated, allowing for a comprehensive understanding of cadets' perceptions of the LMS. This mixed-methods approach ensured that the numerical data was enriched with qualitative insights, offering a more nuanced interpretation of the findings.

Population and Sampling

The population for this study consists of 173 cadets enrolled in the 2021/2022 academic year. Using random sampling, 85 cadets (49% of the population) were selected as the sample. The sample size was determined based on Arikunto's (2012) guideline, which recommends selecting 10-25% of the population when the total population exceeds 100.

Survey Instrument

The survey instrument is a structured questionnaire with closed-ended questions with reasoning . The questionnaire is divided into four sections:

1. Ease of Use consists of questions about the accessibility and navigation of the LMS.
2. Usefulness consists of questions about how the LMS supports learning (e.g., independent learning, flexibility).
3. Understanding of Features consist of questions about cadets' familiarity with LMS features.
4. Difficulties consist of questions about challenges in using the LMS.

The indicators used in the questionnaire were adapted from the McGill model (2014) and tailored to the context of the study.

Data Collection

The survey was distributed to the selected sample of cadets. Responses were collected anonymously to ensure honesty and confidentiality. The collected data were analyzed using descriptive statistics, including:

1. Frequencies and percentages to summarize responses.
2. Mean scores and standard deviations to measure central tendency and variability.
3. The results were interpreted using the descriptive analysis criteria outlined by Riduwan (2004)

Table 1. Descriptive Analysis Criteria Percentage

No	Percentage	Criteria
1	81, 25% - 100%	Very good
2	62,50% - 81, 24%	Good
3	43,75 − 62,40%	Not good
4	25% − 43,74%	Not good

(Riduwan, 2004)

3.   RESULTS AND DISCUSSION

The data obtained from the distribution of questionnaires in the form of responses to the perceptions of cadets of the West Sumatra Maritime Polytechnic towards LMS which are presented based on the observed aspects and then interpreted descriptively qualitatively based on the responses submitted. Based on the results of the data analysis, the perception of cadets towards the Learning Management System (LMS) at the West Sumatra Maritime Polytechnic in terms of use was 80%. This means that most cadets stated that it was easy to use and access the LMS. Meanwhile, 20% of cadets stated that it was not easy to use the LMS as shown in Figure 1. This is because cadets are not used to using the LMS, one of which is due to the lack of lecturers who use the LMS so that the LMS is not routinely used in learning.
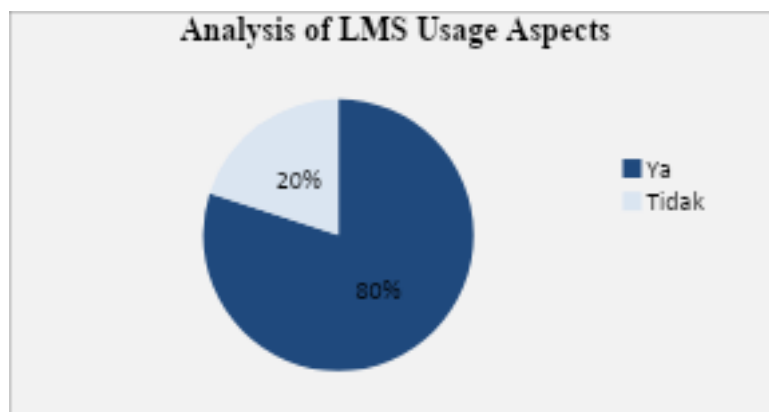
Figure 1. Analysis of LMS Usage Aspects

The usefulness aspect is the aspect that obtained the highest percentage, reaching 84%, cadets responded that LMS is very useful in the learning process. Based on the results of the questionnaire analysis, most cadets stated that LMS can help them to learn independently, can learn anywhere and anytime even though the teacher is unable to attend class, making it easier for them to understand the learning material. In addition, the majority of cadets are very enthusiastic about the implementation of LMS in learning. Based on the results of the study, data was obtained that 61 out of 85 cadets felt very happy to participate in learning through LMS. These variations stimulate cadets' interest in the learning process, so that cadets' curiosity can be optimally stimulated. Cadet perceptions of the usefulness of LMS can be seen in Figure 2.
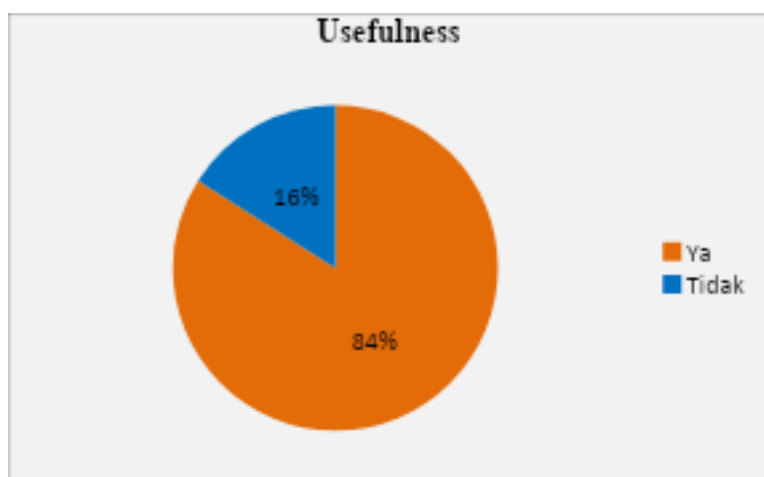

Figure 2. Benefit Analysis

Figure 3 shows the results of the analysis of the aspect of understanding the use of features on the LMS. Figure 3 shows that 60% of cadets understand the use of LMS features. While cadets who do not understand the use of LMS features are 40%. This is because many lecturers do not use a variety of features on the LMS so that cadets are not used to using features on the LMS.

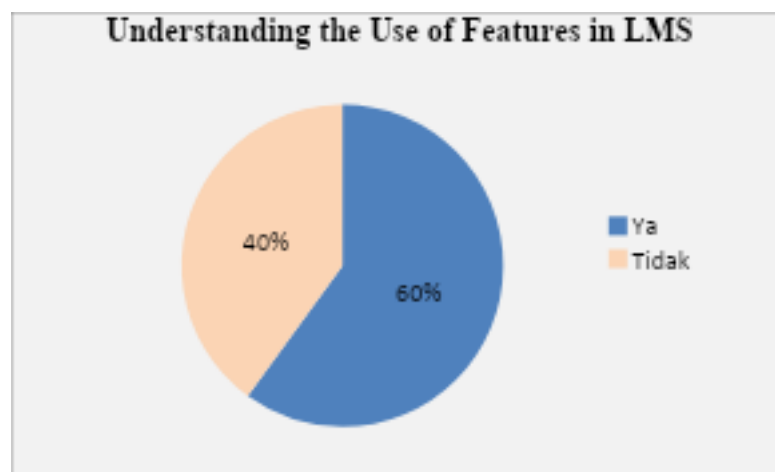**Understanding the Use of Features in LMS**

40%   60%

■ Ya
■ Tidak

Figure 3. Analysis of Understanding of Feature Usage on LMS

The aspects analyzed in the scope of difficulty in using features on the LMS include difficulty in understanding the material and difficulty in using features on the LMS. Most cadets stated that they had difficulty in using features on the LMS. This is in line with the results of the analysis of understanding the use of features on the LMS which showed that 40% of cadets did not understand the use of features on the LMS. Cadets stated that they did not use the variety of features available on the LMS.

Based on the total number of questionnaire responses given, it can be seen that the cadets' responses for the 3 indicators obtained a percentage of 74%, so that they are in the Good category as shown in Figure 4.

Percentage of Cadet Responses

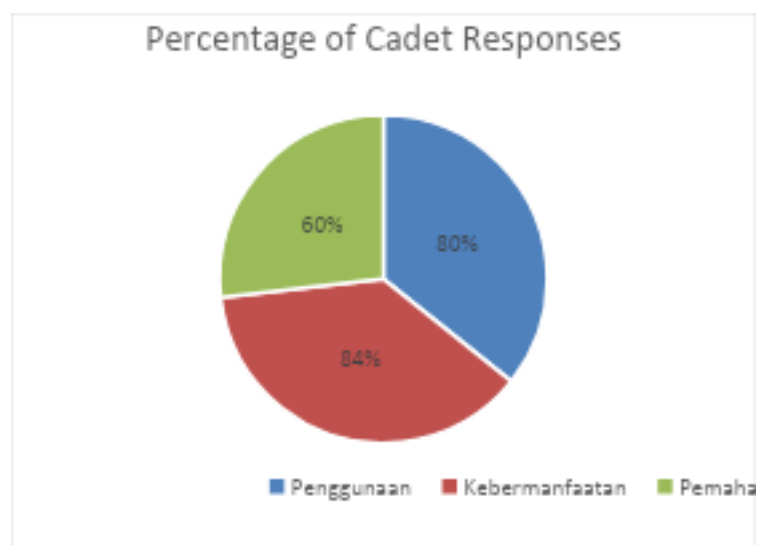60%   80%

84%

■ Penggunaan   ■ Kebermanfaatan   ■ Pemaha

Figure 4. Percentage Analysis of Cadet Responses

This is shown through the positive response of the LMS usefulness indicator. In question no. 15 "Does the learning management system (LMS) help you in learning?", 78 respondents answered "yes" because according to most respondents, LMS makes learning easier, can learn anywhere and anytime, can learn even if the teacher is absent and makes it easier to store materials. Of course, this statement is supported by several other questions related to the benefits of LMS such as question no. 14 "Does the learning management system (LMS) support cadets to carry out the learning process anywhere and anytime?" of 85 respondents, 70 respondents gave a positive answer. Next, question no. 24 Can cadets learn independently by using the learning management system (LMS)? From this question, 75 cadets gave a positive response. This means that cadets feel the benefits of LMS so that they have a good perception of LMS. This is in line with Annisa (2017) who stated that individual perception is influenced by individual factors that are personal in nature and influenced by several things including the structural nature of the individual, temporary nature, and ongoing activities of the individual. Furthermore, student perception is closely related to student learning outcomes (Najichun and Winarso, 2017), (Marhent, 2015), (Saputra and Syafik, 2016), where students who

have good perceptions will generally optimize the independent learning process which can improve their learning outcomes. This means that LMS can improve the independent learning abilities of cadets (Pranoto, 2009; Suryani 2019; Slameto, 2010). In addition, understanding the tools of a media or LMS is one of the factors that influences cadet perceptions (Portnov-Neeman and Barak, 2015).

Based on the results of the analysis above, it can be concluded that in general the Learning Management System (LMS) is very helpful for cadets in learning. LMS makes cadets active and independent in learning. This is in line with Novak's opinion (in Balaji, Al-Mahri, & Malathi, 2016) that e-learning applied through LMS can increase interactivity and learning efficiency because it gives students higher potential to communicate more with lecturers, colleagues, and access more learning materials. However, based on the results of the study, it was found that one of the difficulties experienced by cadets in learning through LMS was the lack of understanding of the features available on the LMS. This is influenced by the frequency of teachers in using LMS and its features. In other words, a person's willingness to use technology products is greatly influenced by perception. Perception is a process that starts from the use of the five senses in receiving stimuli, then organized and interpreted so that they have an understanding of what is sensed (Nugroho, 2012).

In addition, LMS plays a role to complement conventional classes (face-to-face) not replace conventional classes (Shank, 2008). LMS is a technological innovation that provides changes to the learning process. Where the learning process can accommodate communication between teachers and students without being hindered by distance, space and time (Jayawardana, 2017). With LMS, cadets can study teaching materials that can be visualized in various formats or forms that are more dynamic and interactive or cadets will be motivated to be more involved in the learning process. LMS also provides discipline in sending assignments on time so that cadets do not delay the tasks given by the teacher.

4.   CONCLUSION

Based on the results of the study, it can be concluded that the cadets of the West Sumatra Maritime Polytechnic have a good perception of the Learning Management System. The Learning Management System can be used as an online learning management platform. The Learning Management System is also equipped with interesting features so that it is useful as a supporting facility for the learning process. In implementing it, this application has advantages and obstacles that can affect the perception of cadets towards its use. The results of the general data analysis show that cadets have a good perception of the LMS as indicated by the positive response of cadets to the LMS of 74%. This is influenced by the aspect of the usefulness of the LMS felt by the cadets. Based on the responses given by the cadets, it shows that the LMS makes it easy for them to learn independently and can repeat the material many times. In addition, learning can also be done anywhere and anytime, can learn even if the teacher is unable to attend and makes it easier to store materials.

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