Perceptions of Tadris Biology Students on the Implementation of SISTER as an LMS Choice at UIN Kiai Haji Achmad Siddiq Jember

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Abstract In a learning system, innovation is needed to improve the quality of the learning system. Innovation can be done by taking advantage of current technological developments such as e-learning programs. One of the e-learning programs used by students and lecturers is SISTER (Integrated Resource Information System). This SISTER will later be used as a source system that contains a portfolio of educators in Indonesia. This raises student perceptions of SISTER implementation. This research needs to be done because it aims to determine student perceptions of SISTER implementation as an LMS option at the UIN KHAS Jember. The research method used is a quantitative method with a descriptive research design. The data collection technique for this study was collected through a questionnaire via online using the Google form which was given to each student from the 2020, 2021, and 2022 batches. The results show that Tadris Biology students have a high perception of SISTER implementation as an LMS choice in terms of accessibility/convenience. in accessing SISTER as much as 53.3% of students stated that SISTER were easy to access and aspects of the benefits of SISTER were 19 the number of respondents' answers or around 63.3% chose to agree including the high category.

INTRODUCTION

The progress of a country cannot be separated from the role of educators and instructors who produce graduate students who are competent, tough, creative, independent, professional and full of experience. Therefore, an educator or lecturer must be responsive to technological and information developments in order to be able to innovate in the learning process in order to improve the provision of learning experiences to students which will have an impact on student learning outcomes. One important element related to learning innovation is the use of models in teaching. For this reason, lecturers must be wise in determining an appropriate model that can create conducive classroom situations and conditions so that the teaching and learning process takes place with the expected goals.

The learning process can be followed properly and attracts students' interest when using a learning model that is appropriate to the level of student development and in accordance with the learning material. According to Aritonang (2008), lecturers can induce student interest in learning by growing their curiosity about the material to be taught with the e-learning program. The use of systems to support blended learning has become commonplace in universities (Harahap et al., 2019). One of the e-learning programs used by students and lecturers in the learning process is SISTER. SISTER stands for integrated resource information system. This Learning Management System or also called the LMS SISTER, will later be used as a source system that contains a portfolio of educators in Indonesia. This e-learning allows each service to be interconnected so that access to lecturer portfolios, formal data such as lecturer activities, teaching history, research and community service can be seen which ultimately facilitates competency and career development planning for the lecturer concerned.

Based on the description above, students' perceptions of SISTER implementation need to be studied, because students are parties who use SISTER for the learning process. Therefore this research needs to be carried out because it aims to determine student perceptions of SISTER implementation as an LMS choice at UIN KHAS Jember.

METHOD

The design in this study used a quantitative descriptive research design, to examine student perceptions about programs using SISTER. According to Creswell (2009) quantitative research methods are methods for testing certain theories by examining the relationship between variables usually measured by research instruments so that data consisting of numbers can be analyzed based on statistical procedures. This study aims to evaluate the implementation of SISTER as a choice of learning management system (LMS).

The data collection technique for this study was collected through an online questionnaire using the Google form which was given to each student. This questionnaire is determined by the availability and willingness of participating students.

The population in this study were students of UIN KHAS Jember. The sample was taken from students of the Tadris Biology Study Program at UIN KHAS Jember from class 2020 to class 2022 with a total of 10 students from each generation who were taken randomly.

The steps taken in this research:

First, preparation of a questionnaire instrument that will be used for data collection. The information contained in the questionnaire includes: aspects of accessibility and usability. The questionnaire was prepared based on references from journal articles and group discussions. The questions contained in the questionnaire can be seen in the following table.

Table 1. Accessibility aspects

Aspect	Indicators
Accessibility	I can easily access SISTER using an electronic device
	I can easily access learning resources and study materials provided by the lecturers through SISTER
	I find it difficult to collect assignments through SISTER
	I often experience system trouble/errors when accessing SISTER

Table 2. Usefulness aspects

Aspect	Indicators
Sister Usefulness	SISTER web applications can function properly
	Through SISTERS, I can hold discussions with friends and lecturers
	SISTER web applications can make learning activities more focused
	SISTER can generate enthusiasm and motivation to learn
	SISTER helped me to learn the study material easily

Third, collecting data using a validated questionnaire from Tadris Biology students for the 2020, 2021, 2022 batches, which were randomly selected as many as 10 students for each class.

The data obtained from students is in the form of quantitative data, which is then analyzed descriptively.

FINDINGS AND DISCUSSION

The description of the results of the questionnaire on the perceptions of Tadris biology students on the implementation of SISTER as an LMS option shows the tendency of respondents to fill out a questionnaire for each statement item. To make it easier to carry out questionnaire analysis, a description is carried out for each statement item for each aspect. The results of the questionnaire are described as follows.

Table 3. Categorization of perceptions of tadris biology students in the aspect of SISTER accessibility as an LMS choice.

Statement	Frequency			
	Strongly agree	**Agree**	**Not agree**	**Strongly not agree**
I can easily access SISTER using an electronic device	30% (9 persons)	66,7% (20 persons)	-	3,3% (1 persons)
I can easily access learning resources and study materials provided by the lecturers through SISTER	20% (6 persons)	80% (24 persons)	-	-
I find it difficult to collect assignments through SISTER	-	26,7% (8 persons)	66,7% (20 persons)	6,7% (2 persons)
I often experience system trouble/errors when accessing SISTER	3,3% (1 persons)	50% (15 persons)	46,7% (14 persons)	

From Table 3 it can be seen that many of the respondents or students of Tadris Biology chose the high category or agreed compared to the low category (disagree). In terms of ease of access, the results show that an average of 53.3% of students stated that SISTER were easy to access. Accessibility is a person's comfort level to achieve goals related to communication behavior (Sapari, Saleh, & Maksum, 2009). Sister as a learning system must also be developed according to the needs of the 21st century, such as communication, critical, and creative thinking skills (Nasution et al., 2023).

Most of the biology tadris students access SISTER by using a web browser, google chrome from both smartphones and laptops, while other biology tadris students say that it is not easy to use. It can be seen from the results of the questionnaire on the accessibility aspect that the average student stated that it was not easy to use the web SISTER application between 26.7% and 6.7% or 2-8 students. This can be caused by students who are not used to using SISTER, and the lack of lecturers who use SISTER so that students do not routinely use the SISTER web application in the learning process. Even the SISTER used by Tadris Biology students often experiences system trouble. In addition, a person's perception of e-learning affects the willingness to use it or not, and the ease with which a person uses technology (e-learning) will have an influence on user attitudes (Aziz, Al Musadieq, & Susilo, 2013).

Table 4. Categorization of Perceptions of Tadris Biology students in the aspect of the usefulness of SISTER as an LMS choice

Statement	Frequency			
	Strongly agree	**Agree**	**Not agree**	**Strongly not agree**
SISTER web applications can function properly	10% (3 persons)	76,7% (23 persons)	13,3% (4 persons)	-
Through SISTERS, I can hold discussions with friends and lecturers	6,7% (2 persons)	70% (21 persons)	23,3% (7 persons)	-

SISTER web applications can make learning activities more focused	10% (3 persons)	66,7% (20 persons)	23,3% (7 persons)	-
SISTER can generate enthusiasm and motivation to learn	10% (3 persons)	46,7% (14 persons)	43,3% (13 persons)	-
SISTER helped me to learn the study material easily	10% (3 persons)	60% (18 persons)	30% (9 persons)	-
Average	10% (3 persons)	63,3% (19 persons)	26,7% (8 persons)	-

From Table 4 it can be seen that students' perceptions of the usefulness aspect of SISTER are rated high or many students choose the category of agreeing to the benefits provided by SISTER as an LMS choice on the UIN KHAS Jember. From the questions outlined in the questionnaire, it was obtained that the average respondent chose each category. As many as 10% or 3 of the respondents' answers chose to strongly agree, as many as 19 of the respondents' answers or around 63.3% chose to agree, as many as 8 respondents' answers or around 26.7% chose to disagree and no respondents chose the strongly disagree category. Based on table 4, it can be seen that the majority of Tadris Biology students consider SISTER as an LMS choice in the aspect of the usefulness of SISTER being useful in terms of learning between students and lecturers, so that it can be stated that e-learning provides significant benefits to the learning process.

This study seeks to reveal the perceptions of Tadris Biology students towards the implementation of SISTER as an LMS option at UIN KHAS Jember. Based on the results of the study, the perceptions of students in applying SISTER as an LMS choice from the aspect of ease of use or accessibility were dominated by Tadris Biology students who had high perceptions. This shows that students assess SISTER as easy to use and easily accessible using electronic devices such as laptops, smartphones, notebooks etc. apart from that, SISTER can also easily access learning resources and learning materials provided by lecturers.

From the aspect of the perception of the usefulness of SISTER, it is dominated by students who have very high perceptions, this means that students get direct benefits from implementing SISTER as an LMS option. The benefits felt by students in applying SISTER are that they can hold discussions with friends and lecturers, can make learning activities more focused, raise the enthusiasm of biology students and study motivation and help biology students learn learning material easily. As stated by Muzid & Misbahul (2005), that the benefits of E-Learning are (1) facilitating and increasing interaction time between students and teaching materials and interactions between students and lecturers or between fellow students, (2) it allows students to keep learning even if not physically present in class, (3) allows students and lecturers to share information or opinions about lecture material so as to optimize available face-to-face time to concentrate on that material. SISTER should also be able to accommodate various other digital learning media, such as Adobe Flash Professional CS6 interactive multimedia (Hasanah et al., 2022), encyclopedia (Harahap et al., 2020), so that it is

more effectively used. Apart from that, SISTER is also expected to be able to control assignments submitted by students made by AI. Previous research stated that AI is capable of doing various tasks, such as questions (Nasution, 2023).

CONCLUSION

From the results and discussion obtained, it shows that the perceptions of Tadris Biology students at UIN KHAS Jember in applying SISTER as an LMS option from the aspect of ease of access or accessibility are dominated by high perceptions. This was obtained from student assessments regarding SISTER access which is easy to use via electronic devices such as laptops, smartphones, notebooks etc. In addition, from the aspect of the usefulness of SISTER that are received directly by Tadris Biology students, they are able to hold discussions with friends and lecturers, can make learning activities more focused, raise the enthusiasm of Tadris Biology students and study motivation and help Tadris Biology students in studying learning material by easy. Media such as SISTER are also recommended for use at the school level to meet the needs of learning media in schools as in previous research (Sofyan & Nasution, 2022).

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