How do students respond to using the Sevima Edlink Application in learning at the university?

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Abstract. This study aims to analyze student responses to online learning using the Sevima edlink application. The research includes a type of descriptive research with a quantitative approach. The research will be carried out in the 2021/2022 academic year. The study population was IKIP Muhammadiyah Maumere students, and the sample was 3rd and 5th-semester Physics Education Students, totaling 20 people. Sampling using a simple random sampling technique. Data was collected using a questionnaire specified in the Google Form form. Questionnaires were distributed to physics education students who took thermodynamics online courses in semesters 3 and 5. Data analysis using percentage technique. The results showed that 80.81% of students responded positively to using the Sevima Edlink application in thermodynamics lectures. From the analysis results, it can be concluded that the average student responds positively to taking online lectures on thermodynamics courses using the Sevima edlink application.

Keywords: sevima edlink, student responses, thermodynamics course

I. Introduction

The world of education faces big challenges during the COVID-19 pandemic, which is still a common problem. The COVID-19 pandemic requires the world of education, such as universities, to carry out various innovations and adaptations so that the learning process continues to run well. The COVID-19 pandemic is a global issue with several facets. Its effects are also being seen in the field of education, which has led to a decline in the standard of instruction for students [1]. The impact of COVID-19 on the world of education has been enormous by various parties, especially in the education sector, such as lecturers, teachers, students, and parents. As a result, all universities in the world must be closed to reduce the spread of COVID-19 [2]. Higher education has now become necessary to take advantage of technological and communication developments as an alternative in the learning process so that it continues whenever and wherever. The learning system must be replaced with online learning due to this pandemic for the learning process to continue [3]. Therefore, it is evident that adapting to new learning patterns requires educators to create learning materials and instruct students directly using remote digital tools [4], [5]. Numerous studies have shown that online learning is frequently used in higher education [6], [7]. Online education is highly helpful in making learning accessible to everyone and removing obstacles to face-to-face interactions. Classroom instruction is widely seen as an effective practice, particularly in universities. However, in Pilkington's opinion, it is unavoidable that not all learning can be transferred to an online setting [8].

During this pandemic, our attention is occupied when students have to do lecturer assignments, the interaction between students and lecturers could be more optimal, and the assessment of student activity could

be more optimal because there are no intensive face-to-face meetings in class [9], [10]. With this problem, lecturers must innovate to use the right application to help students stay productive.

The application of the learning process by utilizing online media allows students to implement the learning outcomes obtained and is no less interesting than face-to-face learning in class. However, some research results also found that lecturers face problems, and students feel bored in online learning due to the assignments stacked by lecturers [11]–[14]. The results of the research above show that the application of online learning can have a positive and negative impact on learning. Therefore, it is necessary to examine students' responses to online learning, especially for physics education students.

One of the recommended applications for online learning is the Sevima Edlink application. The Sevima Edlink application has features recommended for the university level. In addition, Sevima edlink is also an Android-based media designed for the world of education to help educators in the learning process [15].
The difference between this article and the previous article is that it focuses more on the responses of students using the Sevima edlink application to the uses and benefits of learning media features in assisting the online learning process in thermodynamics courses at the tertiary level. Previous research conducted by [15] stated that the Sevima Edlink application is highly recommended for use as an electronic learning medium in learning Indonesian. Studies further supported this by Novandini and Luta [16], which found that students were excited about using the Sevima edlink application during online learning and learning algebra and trigonometry went smoothly. Based on the description above, this study aims to analyze students' responses to thermodynamics lectures through online classes during the COVID-19 period so that it becomes material for consideration and evaluation in preparing effective lectures during the New Normal period. In addition, this research also aims to be study material for other researchers regarding student responses to online learning using the Sevima Edlink application.

II. Method

Descriptive research with a quantitative approach is used in this research at the end of the odd semester of 2021–2022. The population in the study were students of the Muhammadiyah Maumere Teachers' Training College, and the sample in this study was 3rd and 5th-semester Physics Education students of the Muhammadiyah Maumere Teachers' Training College, a total of 20 people. Sampling using a simple random sampling technique. The data collection technique used in this study was a questionnaire technique. Questionnaires were distributed to physics education students in semesters 3 and 5 who had attended online thermodynamics lectures via Google form. The number of questions in the questionnaire is 37 items. The questionnaire was used to measure student responses to using the Sevima Edlink application in thermodynamics lectures based on indicators of independent learning ability, student interaction with content, student interaction with lecturers, and interaction between students during online learning. The scale used is the Likert scale. The design in this study is made as shown in Figure 1.

Figure 1. Research design

The results of data analysis obtained from filling out questionnaires are grouped based on the range of scores. After grouping the scores from the analysis results, they are categorized into scores with very positive, positive, neutral, negative, or very negative criteria. More data can be seen in Table 1.

Table 1. Questionnaire criteria [17]

Alternative answers	Score
Strongly disagree	1
Don't agree	2
Neutral	3
Agree	4
Strongly agree	5

This study calculated the percentage of achieved scores as part of the data analysis process. The formula for calculating percentages uses eq (1). The percentage results obtained are interpreted as scores based on Table 2.

$$\text{Index } (\%) = \frac{\sum X}{Y} \times 100\% \tag{1}$$

Table 2. Score interpretation criteria

Score Range (%)	Category
76-100	Very Positive
56-75	Positive
25-55	Negative
1-25	Very Negative

The results of the calculations above serve as the basis for analyzing in-depth and concluding how the responses of semester 3 and 5 students of the Physics education study program at IKIP Muhammadiyah Maumere to online learning during the COVID-19 pandemic.

III. Results and Discussion

The discussion of this research contains an analysis of the application of information system technology in the online learning process within the scope of education at the IKIP Muhammadiyah Maumere. The student response survey was conducted on physics education students in semesters 3 and 5 of IKIP Muhammadiyah Maumere who took thermodynamics courses. Twenty students participated, consisting of 4 boys and 16 girls. All respondents attended thermodynamics lectures using the Sevima Edlink application. Researchers gave questionnaires via Google form to students at the end of the semester after attending thermodynamics lectures. The 20 respondents who filled out the questionnaire via the Google form showed that six students responded very positively to the thermodynamics course using the Sevima Edlink application, 13 students responded positively, and one person responded negatively. The survey results are illustrated in Figure 2.
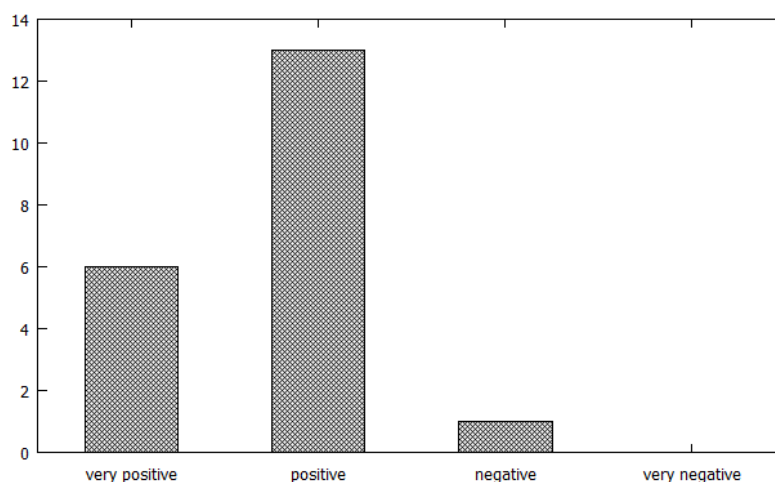

Figure 2. Score interpretation criteria

Based on Figure 2, it can be seen that six students had very positive responses, 13 positive responses, one negative response, and 0 very negative responses. Furthermore, to make it easier to observe research data. Data were analyzed from the questionnaire results, which were grouped based on student response indicators and tabulated in Table 3.

Table 3. The average percentage of student response indicators

No	Response indicator	%
1	Student responses in online learning	78.63
2	Interaction between students and content	76.13
3	Interaction between lecturers and students	65.67
4	Interaction between students in learning	68.2

Then, the questionnaire indicators for student responses to online lectures are displayed as percentage images of respondents when answering the questionnaire, as shown in Figure 3.
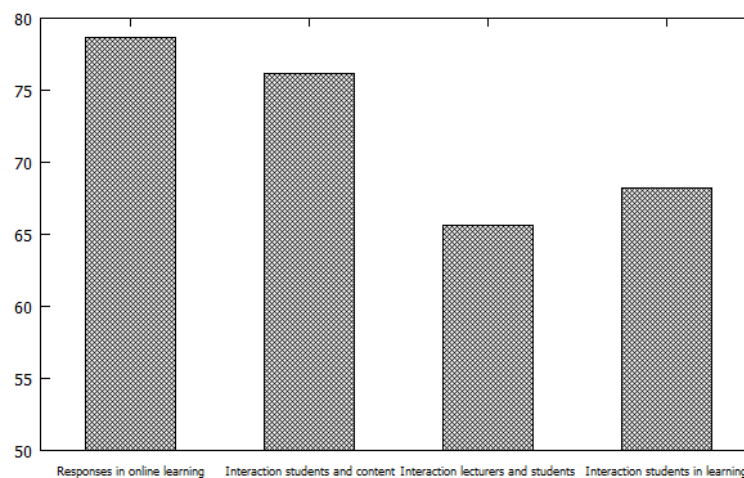

Figure 3. The results of student response analysis based on questionnaire indicators

Table 3 shows the presentations achieved for each question item posed to students in semesters 3 and 5 of Physics Education, categorized based on indicators of student response to lectures during the COVID-19 pandemic by implementing online learning using the Sevima Edlink application. Based on Figure 3, it can be seen that the indicator of student response in online learning is in a very positive category with the highest average percentage value compared to other indicators, which is 78.63%, followed by an indicator of interaction between students and content that is in a very positive category with an average percentage value. Of 76.13%, followed by the indicator of interaction between students in learning obtained a positive category with an average percentage of 68.2% and indicators of interaction between lecturers and students obtained a positive category with an average percentage of 65.67%.

The analysis results show that students respond very positively to implementing online thermodynamics lectures using the Sevima edlink application. In line with research conducted by Meilindha [18] stated that positive student responses to learning using the Sevima edlink application and the achievement of learning objectives. In addition, the findings of the study by Mursalin et al. [19] reinforce the finding that students believe the Sevima Edlink feature is easy to use and understand to support lectures.

The difference in the results obtained can be seen in Figure 3, namely that there are indicators of interaction between lecturers and students and indicators of interaction between students in learning because some students have difficulty communicating in online learning with both lecturers and fellow students. This is a result of the lack of reliable internet access everywhere. This is corroborated by research [19] which reported that students identified several barriers, including limited internet access at home and the increasing cost of internet bundles.

The Sevima Edlink application is very helpful for physics education students in taking online lectures during the COVID-19 pandemic. This is supported by research conducted by Fitriani and Pakpahan [20], which states that the Sevima Edlink application is very useful as an online or online learning medium during the COVID-19 pandemic.

Based on the description that has been explained, it is very necessary to use online learning media such as the Sevima Edlink application in virtual learning, especially in thermodynamics lectures. In addition, using this media is more fun when juxtaposed with other applications to support learning. No less important in learning, besides the use of media that must be considered, is the method used to support the course of the lecture as desired. The use of this media is a big consideration for educators when facing a pandemic like now because with a situation like this, we are required to learn from home (online), so this media is the right choice in terms of the results that have been obtained.

IV. Conclusion

Based on the analysis of the data obtained from the results of the student response questionnaire, it can be concluded that the student response to the use of the Sevima Edlink application in thermodynamics lectures with details on average there are 80.81% of students responding to the questionnaire questions with very positive criteria, 69.15% with positive criteria, and 52.43 for negative criteria and 0 very negative. From the analysis results, it can be concluded that students positively respond to attending online lectures on thermodynamics courses using the Sevima Edlink application.

Although the response of Physics Education students was very positive towards using Sevima Edlink during lectures, a survey on a wider and cross-demographic group has yet to be conducted. Therefore, mapping the response to using Sevima Edlink as a learning medium in terms of cross-demographic aspects is important in future research.

Acknowledgments

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