

The Impact of Online Learning on Students' Interest in Chemistry Education Study Program

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Abstract. *The Covid-19 pandemic has caused the teaching and learning process to be conducted online as a substitute for classroom learning. This study aims to determine the effect of online learning on student interest in the Chemistry Education program at UIN Ar-Raniry Banda Aceh, Indonesia. This research is qualitative research with a qualitative descriptive method with a sample of 40 students. The data was collected through distributing questionnaires within three days to obtain information about the impact of distance learning during the covid-19 pandemic on student interest in the chemistry education program. The results of data analysis showed that 44.33% of students had a good interest in online learning. It means that students' interest in learning is not good for online learning.*

Keywords: *Chemistry Education; Online Learning; Students' Interest*

INTRODUCTION

Learning is something that happens in an educational environment. The educational environment in question is the Elementary School, Junior High School, High School, and University level. Learning is a series of process activities carried out by teachers to learn various kinds of knowledge to achieve the learning objectives that have been set. The learning objectives depend on the basic competencies to maximize cognitive, affective, and psychomotor abilities through various learning designs or learning designs applied to learning activities.

The meaning of learning can also be interpreted as a process. The process in question is systematically organizing or managing the environment around students to encourage and grow them to carry out learning processes (Pane & Dasopang, 2017). In modern times, distance learning is becoming a more popular and accepted approach in education. Because it can be easily accessed anywhere and anytime (Yilmaz, 2015) so that online learning can provide opportunities for every Indonesian student wherever he is to have the same access to learning (Akhirman, 2021).

Distance learning, commonly known as online learning, is recently a popular learning concept. Online learning is carried out to anticipate the spread and transmission of the virus outbreak worldwide today. The virus outbreak is Corona Virus Disease 2019 (Covid-19). This virus spread very quickly to Indonesia and took many victims. To break the chain of covid 19, the government has taken various ways: to keep your distance and avoid crowds. Thus the government took a face-to-face policy between lecturers and students was replaced with virtual or called online lectures or online. Distance learning uses media such as Google Classroom, Zoom, Google Meet, and WhatsApp.

Research by Onyema et al. (2020) shows that e-learning platforms should be encouraged, but the transition has to be gradual to enable the actors to understand the new learning strategy and how to maximize its potentials. Research of Nguyen (2017) that quantitative analytical results

indicate that student-student interaction has a greater impact on student learning outcomes. These learning activities are used for interactive activities as suggestions for teachers to design and implement learning activities for blended learning courses.

Improving digital literacy skills in this era is very important to do, in addition to reducing epidemics and being able to adapt to changes in the globalized environment. In the current era of globalization, where technology has become commonplace used for all interests, including education, to obtain maximum results, an online learning system is applied to students (Nahdi & Jatisunda, 2020).

Online learning must also meet the educational principles applied to normal learning so that the learning does not deviate from the results expected to be obtained by students. According to Setiadi (2004), the principle of education is related to life itself, such as behavioral values, noble, appropriate and worthy, right and beautiful for human life.

Online learning has several factors that support its successful implementation. First, monitoring techniques. This technique is a way to keep students active during the learning process. Second, report storage. Each learning process has a standard reporting report, which will later become evaluation material to maintain or improve the learning quality. Therefore, how to save reports is also very important. Third, software. The software also has a big role in this learning because it is a communication medium between educators and students. Fourth, learning materials. The difference between learning materials applied to online learning and learning usually lies in the different delivery methods through different media. Different methods are needed. Lastly, technique learning management. Learning management techniques include learning models and methods and effective classroom arrangements (Munir, 2017).

Online learning reaps various kinds of responses from various groups, especially from students who are the subject of the learning itself. There are pros and cons among students, some students who are against complain because there are several problems such as uneven network, uneven technology, to difficulty understanding learning because it is difficult to communicate with teachers. This case can give rise to other problems if the authorities do not resolve them. The problems that arise are thought to have decreased interest in learning from students because they assume that the results are the same learning or not.

According to Kusuma & Sutapa (2020), online learning is very influential on children's social behavior, such as children being less cooperative because children rarely play together, lack of tolerance, lack of socializing with friends, limited learning at home, children's emotions sometimes feeling bored and sad, children feeling homesick for friends and teachers and children were also recorded as experiencing verbal violence due to the usual learning process. The results of this study can be used as a reference for evaluating the implementation of online learning or learning from home, considering that online learning will continue.

Based on the Ministry of National Education, interest is defined as a high tendency of the heart towards something, passion, desire. Through interest raises a motivation to be more active in learning because learning has become a hobby for the subject of learning. Someone with high interest will not feel bored with what he is doing. From several articles, it is also stated that someone interested in doing something tends always to try to maximize the process he does to achieve the best possible result from what he is interested in. This explanation is also supported by research conducted by Wardhani in his thesis regarding Internet connectivity and interest in learning. His thesis concludes that the internet as a learning resource is an external factor or can be called an external aspect that affects students, while interest in learning is a factor that comes from within students or is referred to as internal factors. Both have an indirect effect on increasing student learning (Jogiyanto, 2017).

In this study, we want to know whether distance learning can cause a lack of interest in learning in chemistry education students and whether online learning affects student learning outcomes.

METHOD

This research is qualitative research using the qualitative descriptive method. The object of information in this study is the chemical education program students. The data collection method distributes questionnaires/questionnaires within three days. This method is used to obtain information about the impact of distance learning on the covid-19 pandemic on Chemistry Education program students. The population of this research is all of the Chemistry Education program (245 students) and a sample of this research 40 students (1st grade 10 students, 2nd grade 15 students, and 3rd grade 15 students).

The Guttman scale is also called a scalogram scale which is very good for convincing research results regarding the unity of the dimensions and attitudes or traits being studied. According to Usman & Abdi (2011), the Guttman scale is very good for convincing researchers about the unity of the dimensions and attitudes or traits being studied often referred to as universal attributes. The Guttman scale can be seen in Appendix A.

Answers from respondents can be made with the highest score of "one" and the lowest score of zero. For alternatives to the answers in the questionnaire, the compiler sets a category for each statement, namely Yes = 1 while No = 0. Therefore, the researcher distributed a questionnaire that must be answered with 15 question items in online lectures to 40 Chemistry Education students.

Data analysis is an activity to research, examine, study, compare existing data and make the necessary interpretations. This analysis is carried out to estimate whether all aspects of learning involved in it are by their capacity or not. The analysis carried out in this study uses quantitative data. This analysis was conducted to see the level of interest in Chemistry Education students learning online during the pandemic. To calculate the student interest percentage, we used the following formula: $P = F/N \times 100$, where P is the percentage, F is the number of respondents' answers, and N is the total number of students.

Table 1. The Interpretation of Students' Interest Percentage

| No. | Percentage | Interpretation |
|-----|------------|------------------------------|
| 1. | 76% - 100% | Satisfy |
| 2. | 56% - 75% | Good |
| 3. | 40% - 55% | Satisfactory |
| 4. | < 40% | Less than satisfactory (LTS) |

FINDINGS

This study aims to describe the results of student interest in Chemistry Education at UIN Ar-Raniry. The level of student interest in learning can be seen based on students' answers to the questionnaire given with 15 questions on 40 students of the Chemistry Education program by using a total sampling technique.

The research results on the level of inquiry for Chemistry Education students of UIN Ar-Raniry towards online lectures during the COVID-19 pandemic are shown in Table 2.

Table 2. The Result of the Students' Interest Questionnaire

| Question Number | Score | | F | Percentage | Category |
|-----------------|-------|-------|------|------------|--------------|
| | Yes | No | | | |
| 1 | 10 | 30 | 10 | 25 | LTS |
| 2 | 6 | 34 | 6 | 15 | LTS |
| 3 | 23 | 17 | 23 | 57,5 | Good |
| 4 | 9 | 31 | 9 | 22,5 | LTS |
| 5 | 8 | 32 | 8 | 20 | LTS |
| 6 | 7 | 33 | 7 | 17,5 | LTS |
| 7 | 16 | 24 | 16 | 40 | Satisfactory |
| 8 | 3 | 37 | 3 | 7,5 | LTS |
| 9 | 23 | 17 | 23 | 57,5 | Good |
| 10 | 38 | 2 | 38 | 95 | Satisfy |
| 11 | 29 | 11 | 29 | 72,5 | Good |
| 12 | 12 | 28 | 12 | 30 | LTS |
| 13 | 32 | 8 | 32 | 80 | Satisfy |
| 14 | 35 | 5 | 35 | 87,5 | Satisfy |
| 15 | 33 | 7 | 33 | 82,5 | Satisfy |
| Average | 18,9 | 21,06 | 18,9 | 44,33 | Satisfactory |

Based on the table above, it can be seen that the level of interest in studying Chemistry Education students at UIN Ar-Raniry in online learning during the COVID-19 pandemic is in a bad position. This data can be seen from 44.33% of students interested in taking online learning during the COVID-19 pandemic with the number of students who answered Yes on average as many as 18.9 and those who answered no on average as many as 21.06 out of a total of 40 respondents. Online learning is very influential on students' interest and enthusiasm for learning.

DISCUSSION

The results showed that most students' responses to online learning were very low. These results can be seen from Table 2, where nine questions are in the LTS category, 1 question is in the satisfactory category, three questions are in the good category, and only two questions are answered in the satisfy category. The findings above show that this is similar to some previous studies below. It is the same as what Kurniawan (2021) stated, which stated that online learning could positively impact students' interest in learning. This fact means that the better the interest in learning that students have, the more successful the online learning will be. Increased interest in learning is also closely related to interesting learning. The more interesting learning is, the more students' interest in learning will be higher and more enthusiastic about learning. Nurfarini & Saugi (2020) research also indicated that online learning greatly affects students' interest in learning. This finding is evidenced from the results of the analysis test regarding the correlation between online lectures and interest in learning which has a price of 0.975, which means that the contribution of online lecture variables to the learning interest of Islamic Education program students at IAIN Samarinda is 95.06%, while the remaining 4.94% is the contribution of the variable other variables outside of online lectures.

Oktavia, Sutisnawati, & Maula (2020) states that student involvement during the learning process is the main key in the educational process because it is the most important factor for the success of the student's learning and educational process. The level of student involvement in the online learning process will help students easily understand the material presented. Edgar Dale argues about the cone of experience where student participation in learning in the form of participation and direct involvement of students in activities, simulations, and presentations will increase material understanding 70-90% (Huda, 2016). High participation in online learning during

this period is one step to maintain student interest in learning which continues to decline due to boredom. The results of this study are expected to provide positive implications in efforts to improve and increase learning success to achieve the expected online learning goals.

CONCLUSION

Based on the results can be concluded that students' interest in Chemistry Education program at UIN Ar-Raniry in online learning is categorized as satisfactory, which is 44.33%. This research proves that students have a poor interest in participating in these online learning or it means that students' interest in learning is not good for online learning.

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APPENDIX A

Guttman Scale Student Questionnaire

| No. | Questionnaire Question | Description | |
|-----|---|-------------|----|
| | | Yes | No |
| 1. | Are you happy with the application of online learning? | | |
| 2. | Is it online learning that makes you more interested in learning? | | |
| 3. | Does the lecturer make it easier for students during the learning process online? | | |
| 4. | What is the material taught by the lecturer in online learning is easy to understand? | | |
| 5. | In your opinion, the application of learning online is relevant? | | |
| 6. | Can online learning be better to help your understanding? | | |
| 7. | Do you seriously pay attention to the lecturer when learning online when the lecturer explains the material? | | |
| 8. | Can you concentrate on full-time online learning? | | |
| 9. | Can you easily get learning resources during the online learning process? | | |
| 10. | What are internet and network quotas being an obstacle to learning? | | |
| 11. | Did you get help with the internet quota from campus/government during online learning? | | |
| 12. | Does online learning make your performance index increase? | | |
| 13. | If you have trouble joining a discussion forum, does the lecturer understand? | | |
| 14. | Are there any media other than powerpoint (PPT) used by your lecturer in delivering the material during learning? | | |
| 15. | Is it the media that make you more interested in online learning? | | |