Frictions on Students' Learning Interest as the Impact of Online Learning in the Era of the Industrial Revolution

by

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Abstract

This study aims to determine the friction of students' learning interest as a result of online lectures in the era of the industrial revolution. It is a result of the anticipation of the lecturers to provide teaching that can improve student interest in the era of onlinelearning as well as maintain their learning achievement. This research uses descriptive quantitative research methods. Data collection methods and instruments used in this study were interviews and questionnaires. The population in this study was 35 students majoring in Early Childhood Education in UMN Al Washliyah. The data used in this studyis the data gathered through the questionnaires given to the students. The instrumentused in data collection is a learning interest test. This research was conducted in three stages, namely, the first stage is to collect data from observations, interviews,and tests, the second stage is to classify the data and the third stage is to analyze the existing data. This quantitative descriptive study carried out data analysis using the paired sample t-test. It is found that there is a difference in the mean between the groups of data before and after online lectures. This means that there is an effect of giving online lectures, particularly in reducing the interest in learning experiencedbystudents during the Covid-19 pandemic.

Keywords: Interest in learning, online lecture, the industrial revolution, online learning.

Introduction:

Distance learning is a learning method where the process is held in such an isolated communication between teachers and students. It must be facilitated by electronic media, even though it's not something new faced by students but there are still many encountered obstacles in its application, even tended to make students less interested in taking online classes.as stated by Gumanti & Teza (2021). This distance lecture system illustrates how to integrate cyber technology, also known as the era of the industrial revolution that responds to the needs of adjusting to the new

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curriculum according to the current situation. In practice, this online lecture system has the advantage of a flexible class schedule. While the drawbacks are less effective and optimal delivery of teaching materials to students. This can be seen from several student comments about the network, noisy locations, disturbances from nearby, the high cost of data packages, being tempted by social media and many more. The impact of lack of an online learning system can have a bearing on interest in learning (Rifnida & Herlili, 2021) where this interest can also have an impact on value.

Lack of control from lecturers and parents and more the lack of ability of lecturers to use applications indirectly have an impact on student learning interest (Santika et al., 2020). In fact, interest in learning is an important element in learning activities

Etymologically, interest comes from English interest which means liking, attention (the tendency of the heart to something) and desire. So in the learning process, students must have an interest or preference to take part in ongoing learning activities, because interest will encourage students to show their attention, activities and participation in taking part in ongoing learning (Sirait et al., 2021). A good interest in learning can reduce boredom towards lessons. The higher interest in learning, the more impact on learning achievement (Sijabat et al., 2020). Students will have good concentration if there is interest in them. This concentration that is formed makes it easier for students to understand the material being studied. As part of learning, students are also affected and must adapt to online learning methods. So that the impact that is raised is certainly not much different from that experienced by students in general where the passion or interest in learning has decreased. If this is true, it is hoped that the teaching staff need to take preventive steps so that the level of decline does not further affect the achievement scores of students. So to ensure this, with the impact of this online lecture and related to this phenomenon, the researchers are interested in conducting this particular research.

Literature review:

In the learning process, students must have an interest or preference to take part in ongoing learning activities because interest will encourage students to show their attention, activities and participation in learning that takes place (Sutriyani, 2020).

Interest is a sense of preference and a sense of interest in a thing or activity, without anyone asking. The statement means that interest is a sense of attention, desire that someone has for something without any encouragement from others. Students are expected to have a high interest in learning to foster learning concentration (Sirait, & Handayani, 2020). So that it can make it easier for students to understand the material being studied. A good interest in learning can reduce the boredom of students towards the lesson. This shows that interest is very closely related to learning (Jamil & Aprilisanda, 2020).

Based on the explanation by the experts above regarding interest, it can be concluded that basically interest is a person's attentiveness in something that he shows by giving greater attention to it. Thus, what is meant by interest in learning is awareness and the ability to learn something with pleasure, having more attention on something he likes and participating actively in undertakings. If it is associated with accounting learning, students who have a great interest in accounting subjects will tend to pay greater attention to accounting subjects and this is shown by the motivation or encouragement to learn and participate actively in accounting learning that interests them.

Online lectures are systems that utilize internet access as a learning medium that are designed and displayed in the form of lecture modules, video recordings, audio or writing by the academy/university. Online lectures are managed and organized by higher education institutions; academies and or universities that have met the eligibility. Standards for the implementation of an online lecture system are intended for all learners who wish to pursue higher education, both for scientific and practical purposes (Tangonet al., 2021). Initially, online lectures were a college solution for employees who wanted to have the opportunity to study while working. Along with the demands of lifestyle and flexibility, the online lecture system is one of the alternative solutions in equal distribution of education for students, especially working students to explore science and knowledge.

Research Methods:

This research is based on a qualitative descriptive method. Qualitative descriptive research is research that is used to provide a phenomenon or description of what conditions can be without manipulation of one of the variables. Qualitative descriptive describes something and analyzes the existing conditions. This research was conducted at the PG-PAUD (Early Childhood Education) PRODI UMN AL Washliyah Medan. The population in this study were PG-PAUD students at FKIP UMN Al Wasliyah Medan. Because there are many limitations in conducting research, samples will be taken from the entire existing population. The data sources in this study were classified into 2 sources, namely: data before and data after the COVID-19 pandemic. This research method uses descriptive quantitative research methods. Departing from the existing problems, this research will try to analyze the friction of student interest in learning as a result of Covid-19, so this research starts from interviews. Data collection methods and instruments used in this study were interviews and questionnaires. Data analysis carried out in this quantitative descriptive study was by using the paired-sample t-test. In analyzing the data in this study, all calculations were carried out using the SPSS software application, starting from compiling the data, testing for normality, to using the paired sample t-test.

Results and Discussion:

From the results of a questionnaire to 35 students at PGPAUD FKIP UMN Al Washliyah's interest in learning before and after online lectures in the era of the industrial revolution, the following data were obtained. This sample is part of the population who are students at PG_PAUD FKIP UMN Al Washliyah Medan. Then the data obtained were two groups of data, namely data before and after online lectures to the respondents. The data was obtained from the provision of this research instrument in the form of a questionnaire containing 34 statements indicating how high student interest in learning was during the Covid-19 pandemic. Respondents filled out the questionnaire twice, relying on the experience and memory just formerly and after the implementation of online lectures in the industrial revolution era to the respondents. The respondents fill in each statement on the questionnaire with the choice that suits them personally.

From the data obtained from the questionnaire given before and after online lectures in the era of the industrial revolution to respondents, data analysis was carried out using the paired-sample t-test to answer the problem formulation in this study. Before analyzing the data with the test, it must first be known whether the data is normally distributed or not, as the main requirement in using the paired sample t-test. Based on the Shapiro Wilk test output, it is known that the value of Sig. for the pretest data (before online lectures) of 0.173 which is greater than 0.05 which means

that the data before the online lecture is normally distributed. Then the value of Sig. for posttest data (after online lectures) of 0.797 which is also greater than 0.05 which means that the data after online lectures are also normally distributed. So it can be concluded that the data before and after online lectures obtained in this study were normally distributed. Therefore, data analysis in this study was carried out using the paired sample t-test. The results of the paired sample t-test carried out can be seen in the following table.

Table 1: Output 1 Paired Sample t-Test, Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Before online lecture	68.14	35	10.666	1.803
	After online lecture	67.89	35	10.116	1.710

In Output 1, a summary of descriptive statistical results from the two groups of data studied, namely before and after online lectures. For the data group before online lectures, an average score of 68.14 was obtained. Meanwhile, for the data group after online lectures, an average score of 67.89 was achieved. The number of respondents or parents of students used as samples in this study was 35 people. The standard deviation of the data group before online lectures is 10,666 and after online lectures are 10,116. As a final point, the average standard error score for the data group before online lectures is 1.803 and after online lectures are 1.710.

Because the average score in the data group before online lectures is 68.14 > 67.89 which is the average score in the data group after online lectures. So this means that descriptively there is a difference in the average score between groups of data before and after online lectures. Furthermore, to prove whether the difference is substantially actual (significant) or not, it is necessary to interpret the results of the paired sample t-test in the next output.

Table 2: Output 2 Uji Paired Sample t-Test Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Before Online Lecture & After Online Lecture	35	.154	.378

The results of Output 2 above show the results of the correlation test or the relationship between the two groups of data or the relationship between groups of data before and after online lectures. Based on the output above, it is known that the correlation coefficient is 0.154 with a significance value (Sig.) of 0.378. Because the value of Sig. of 0.378 > 0.05 which is a probability value, it can be said that there is no relationship between the data groups before and after online lectures. This illustrates that the two groups of data are not related or do not influence each other.

Table 3: Output 3 Paired Sample t-Test; Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Before Online Lecture & After Online Lecture	.257	13.526	2.286	-4.389	4.904	.112	34	.001

Output 3 is the last in this paired sample t-test. Before interpreting the contents of output 3, the formulation of research hypotheses and guidelines for decision making in this paired sample t-test are presented first. The following is the formulation of the research hypothesis:

H_0 = there is no difference in the mean between groups of data before and after online lectures. This means that there is no effect of giving online lectures in reducing the interest in learning experienced by students during the Covid-19 pandemic.

H_a = there is an average difference between groups of data before and after online lectures. This means that there is an effect of giving online lectures in reducing the interest in learning experienced by students during the Covid-19 pandemic.

Meanwhile, the guideline for decision making in this paired sample t-test is if the value of Sig. (2-tailed) < 0.05 then H0 is rejected and Ha is accepted. On the other hand, if the value of Sig. (2-tailed) > 0.05 then H0 is accepted and Ha is rejected. Based on the Output 3 table above, it is known that the value of Sig. (2-tailed) is 0.001 < 0.005 then H0 is rejected and Ha is accepted. So it can be concluded that there is an average difference between groups of data before and after online lectures. This means that there is an effect of giving online lectures in reducing the interest in learning experienced by students during the Covid-19 pandemic.

PG PAUD UMN AW uses some applications, although several other applications cannot be accessed and are difficult to reach in the learning process, and inadequate network to support teaching and learning activities. Other factors become obstacles, namely: the lack of availability of facilities as not all students have android/handphones, laptops, and various other learning support media, this is the second obstacle after the network, caused by economic factors that exist in their respective areas so that some students may not be able to take part online-based lectures, this is also the responsibility and duty of both the lecturers or the university or the government because of the current epidemic.

The lack of understanding and interest of students to study online is also a separate task for lecturers as well as campuses and government due to the unavailability or even distribution of existing networks in their home or campus areas, making it difficult for students in those areas to access the internet network as well as the fact that there are still many students who have inadequate knowledge and ability to use technology. The large use of internet quota in the learning process is a problem that cannot be underestimated and interest in learning to always be active will not run as efficiently as possible at every start of online learning. Online-based learning can be the only foundation that can stand to replace at least being able to fill the obstacles of learning in schools, both small and large scale, which are hard-hitting. For parts and fields in education, sometimes the presence of an educational path can make us realize the importance of the meaning of education, this epidemic teaches us to be able to quickly intersperse and not be left behind with increasingly advanced countries. Particularly concerning science and technology issues that are very important in the world of education.

This concentration that is formed makes it easier for students to understand the material being studied (Setyani & Ismah, 2018). Interest is one of the main factors that support student success in learning. The condition of effective teaching and learning is the presence of students' interest in learning. Student interest has a very big influence on learning, students will do something they are interested in, otherwise without interest students will not learn.

Conclusions and Suggestions:

Based on the problem formulation, research results, and discussion as stated in the previous chapter, it was found that the implementation of online lectures during the pandemic can effectively reduce student interest in learning. Here are some suggestions that need attention from all interested parties. These suggestions include the following: For PAUD (Early Childhood Education) Lecturers, in implementing online learning, lecturers should act as companions, motivators, foster responsibility, continue to monitor, be creative in making online learning materials, facilitate discussions both conducted by expert groups and individuals. It is done in order to avoid things that can trigger a decrease in interest in learning from both students and lecturers themselves. Further researchers who want to conduct similar research should provide more time in the research process, especially during the online lecture period to produce a thorough outcome.

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