Integrating Technology into Education: Students' Attitudes toward Online Learning

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Abstract: The increasing spread of the COVID-19 encouraged learning systems to switch from traditional to online learning. It has brought significant problems and difficulties for students. The swift shift to fully online learning demands some adaptation. Students must learn to adapt their abilities because of the increasing use of technology in education. This study explored students' attitudes towards online learning and the reasons for their attitudes. A survey of 191 students from four State Islamic universities in Aceh was conducted online. A descriptive research framework was chosen, and a survey approach was used to collect data to gain knowledge of the situation and answer research questions. Students showed a positive attitude and satisfaction toward online learning during Covid-19. Even they realized how to handle technological tools applied during teaching and learning. Integrating technology into education does not challenge students as technical support and facilitates education to be easier. Keeping up with technology and infrastructural upgrades is vital to support online learning. The recent study has certain limitations. The small number of participants leads to incomplete data. Therefore, it is necessary to include more people to examine education in general.

INTRODUCTION

In response to the global pandemic of Covid-19, the Indonesian government encourages online activities, such as working and studying from home. Consequently, schools and universities must switch from traditional or offline to online learning modes (Amin & Sundari, 2020). As a result, integrating technology into education is undeniable (Rayuwati, 2020) and influences students' attitudes toward learning (Male et al., 2020).

The learner's attitude is acknowledged as one of the most important factors that impact learning (Abidin et al., 2012). Students' attitudes are important due to their effect on the positive or negative behavior toward different learning strategies (Lan, 2020). If the learner views the learning positively, learning will occur (Zayed & Razeq, 2021). As online learning is different from traditional learning, it creates challenges in learning (Efriana, 2021). The challenges included inadequate internet access, the absence of direct contact between teachers and students in learning, and the low technological ability caused by an inadequate family economy to provide technological devices as learning tools. It is a significant obstacle when students start a course and are not familiar with online learning.

However, students' attitudes towards online instruction can affect the

perception of teaching and learning success. Success or failure in online learning is much dependent on the students' attitude. Students with a positive attitude will have a high level of participation or are enthusiastic, and they will get a good understanding and outcome, and vice versa (Hodges et al., 2020). Some researchers have conducted studies dealing with students' attitudes (Ali & Hady, 2019; Erarslan & Topkaya, 2017; Eshghinejad, 2018; Tran, 2020). To better understand this topic, (Eshghinejad, 2018) conducted a study examining EFL students' attitudes toward English language learning. Behavioral, cognitive, and emotional components of students' attitudes about learning English were good. Erarslan & Topkaya (2017) looked at EFL students' attitudes regarding e-learning and the impact of online learning on students' English proficiency. Students' perceptions regarding online courses were mixed, but online courses did not aid their overall success in preparatory classes.

Meanwhile, Ali & Hadi (2019) found that WhatsApp has a favorable impact on students' attitudes, motivation, and anxiety when learning English as a second language. The most recent study by Tran (2020) also looked at EFL students' attitudes toward learner autonomy in English vocabulary learning and found that poor interest in Learner Autonomy in English was both emotionally and behaviorally expressed.

Despite several studies, little is known about students' attitudes about online learning and the underlying causes of these attitudes. As various studies have indicated, online learning and its acceptance are significantly influenced by students' characteristics, regarded as critical variables in online learning (Bhuasiri et al., 2012). Self-efficacy for the internet, computer, internet experience, and concern over computer usability are among these traits (Chu & Chu, 2010). Students' attitudes can also be affected by the quality and simplicity

of using online learning courses, the accessibility of online learning, and the students' level of computer skills (Aixia & Wang, 2011).

A significant aspect of online learning is the students' perceptions of their computer use, satisfaction, and effectiveness (Liaw & Huang, 2011). Attitude is how students accept the subject and their opinions (Taqi & Al-Nouh, 2014). After all, positive student attitudes and behaviors toward online learning are critical and crucial for online learning's acceptability and adoption (Selim, 2007).

Students' attitude (Taqi & Al-Nouh, 2014) suffer when technology is used for online learning. Therefore, this article will examine (1) Students' attitudes toward online learning. (2) The reasons behind students' attitudes towards online learning. In other words, the goal of this study is to examine students' attitudes toward online learning through integrated technology.

Any effective use of technology in education must be accompanied by a constant examination of its unique characteristics (Cloete, 2017). This article departs from the premise that a rapid shift to online learning through technology integration is not necessarily valuable to students in terms of learning but rather raises new issues that must be consider (Cloete, 2017)ed. As a result, students have to adapt, creating new problems for them.

THEORETICAL SUPPORT
Online Learning
The words "distance learning" and "online learning" are used interchangeably to describe any type of learning outside of or in traditional classroom settings and are conducted using technology. In the last few years, online education has emerged as a legitimate academic discipline. It incorporates new media and technology into the classroom (Carliner, 2004; Smart

& Cappel, 2006; Stern, 2018). Some of these studies sought to determine if online education was a success or a failure.

Researchers Sun et al., (2008) looked into what affects students' satisfaction with e-Learning. A study by Jethro et al., (2012) examined the impact of e-learning on teaching and learning in a global age. An investigation into the relationship between student characteristics/background, design features, and learning outcomes was conducted by Kintu et al., (2017) to examine the effectiveness of a blended learning environment. Pallarès et al., (2019) emphasized the need to have students who are both motivated and well-versed in strategies.

One of the most important factors in evaluating online courses. Although online learning is not a new learning system, even online learning has become the fastest-growing trend in education (Wei & Chou, 2020). Still, it influences some university students since there was a correlation between the satisfaction life of students experienced and e-learning experiences (Lan, 2020). According to (Alqurashi, 2019), the level of student satisfaction and perceptions of their educational experience is reflected in their level of satisfaction. As a learning experience, satisfaction can be defined as a sense of completion.

Students' Attitude toward Online Learning

Although online learning is not a new learning system in some countries, online learning is quite challenging for developing countries like Indonesia that are accustomed to traditional teaching. In the same context, developing countries have the lowest ability to apply modern practices in education (Ullah, 2017). Hence, online learning gives rise to various positive and negative student attitudes. Attitudes are important because of their effect on students' positive or negative behavior towards different

learning strategies (Lan, 2020). Learning will occur if the learner views the learning positively (Zayed & Razeq, 2021). Online learning contains a different form from traditional learning. It provides interaction through email, computer chats, and online instruction. It creates challenges in the process of learning.

The challenges included inadequate internet access, the absence of direct contact between teachers and students in learning, and the low technological ability, which is caused by an inadequate family economy to provide technological devices as learning tools. It is very important to have positive feelings about the situation. This is a significant feeling when students start a course and are not familiar with online learning. They do not know the new environment, the technology, and the learning style.

In addition, (Hodges et al., 2020) underlined that students' attitudes toward online instruction could affect the perception of teaching and learning success. Success or failure in online learning is much dependent on the students' attitude, which means that students with a positive attitude will have a high level of participation or are enthusiastic, and they will get a good understanding and outcome, and vice versa.

Context and Proficiency Level

In the Indonesian background, where the use of computers as online learning tools, in this case, does not inevitably spread, new problems arise. Previously, students also had issues, including a shortage of discipline, adequate teaching resources, or a healthy learning atmosphere at home alone (Bao, 2020).

Contrary to face- to face class activity, online classes do not involve the necessary thing that should exist in them. In the face-to-face class, the students can see the teacher's facial expression, body language, teacher voice which can help

students understand the material well. And the teacher helped by those necessary tools in delivering the material in the classroom. As is proved by Hood (2011) that the aim is to make noticeable ways in which body language functions in collaboration with spoken language in teachers' discourse to transfer students' attention to different types of knowledge, to maintain students' participation and involvement processes, and to comprehend meanings. Furthermore, Hood (2011) stated that the body could also influence attitudes through the grading of meanings along several clines.

The covid-19 pandemic has forced face-to-face learning activities into the online learning mode. This new model impacts the adaptation of teachers in teaching or students in the learning process, and to make the students understand the material well, the teacher must slow down when explaining it (Armstrong, 2011; Wei & Chou, 2020). Modern life is identified by knowledge and skill of information, communication, and technology (ICT). Adults and children in rural areas have frequent contact with the ICT. Consequently, it becomes a part of students' interaction. It proved that the ability to use ICT from an early age in the home environment is essential for developing children's digital competence (Juhaňák et al., 2019). Students familiar with ICT at an early age will have positive attitudes toward online learning, which can influence their confidence and achievement at school. Furthermore, Hatlevik et al. (2018) stated that the frequency of computer usage outside school positively impacted students' computer attitudes (e.g. satisfaction, an expectation of utility).

METHOD

The purpose of the current study was to examine students' views toward online learning during the Covid-19 outbreak. More specifically, it was assigned to examine how students' attitudes regarding online learning in Aceh, Indonesia, and the reasons that influence students' attitudes. Since student attitude is defined as the degree of investment a student has in learning, it comprises students' involvement in their school activities and how much they value academic work. It refers to the desire to put out an effort to grasp complicated topics (Bergdahl et al., 2020; Finn & Zimmer, 2012; Goldspink et al., 2008; Martin & Torres, 2012). Therefore, the indicator for analyzing students' attitudes can be formulated as follows.

Table 1. Students' Attitude Indicator

Category	Indicators
Students' Attitudes	1. Participate actively and regularly in online learning 2. Actively involved in discussion during online learning. 3. Completing all tasks of online learning. 4. Studying seriously during online learning.

Table 2. University Students as Participants

No	Subject of Research	Number of Subjects	Percentage
1	IAIN Langsa	69	36.10 %
2	IAIN Lhokseumawe	58	30.40 %
3	IAIN Meulaboh	36	18.80 %
4	UIN Ar-Raniry Banda Aceh	28	14.70 %
	Total of Number	**191**	**100%**

A descriptive research framework was chosen, and a survey approach was used to collect data to gain knowledge of the situation and answer research questions. An online survey was conducted with English foreign language students from four different universities in Aceh, Indonesia (Table 2).

The researcher created an online questionnaire for the study's purpose. According to Fraenkel & Wallen, (2009), surveys define a population's characteristics and find out how members disperse across variables. In this case, the attitudes towards online learning during the (Covid 19) pandemic became the attribute to explore. The study included 191 university students, 113 females and 78 males, ages 18-25, with only three participants above 25. Participants were taught online by four state Islamic universities in Aceh.

This questionnaire was written in Bahasa to help English language students better understand the questionnaire. In addition, this instrument had also been validated previously by several other researchers and experts in this field before it was distributed electronically to participants.

Table 3. The Scaling of EFL Students' Attitudes

No	Percentage	Category
1	0 % - 25 %	Negative
2	26 % - 50 %	
3	51% - 75 %	Positive
4	76 % - 100 %	

Using a closed-ended questionnaire, the researchers gathered information about the attitudes and experiences of the participants in each group participating in online learning. Likert scale with three responses (yes, some, and not at all) covers two categories: positive and negative views. Positive and negative attitudes were taken into consideration when creating this questionnaire. In addition, two open-ended questions were distributed to the students to elicit their thoughts on their online learning experiences and reasoning that were not covered by the closed questionnaire. Open-ended questions allow for more personalized answers (Fraenkel & Wallen, 2009). A few basic demographic questions were also included in the study.

Descriptive statistics were used to examine the questionnaire data in light of the research questions and current literature about how students feel about online learning. Finally, the questionnaire data analysis results were shown and explained in great detail to answer each research question. Methodological triangulation was used to make sure this research was valid. After all the participants filled out the questionnaire, the interviews were responded (Miles, 2014).

RESULT AND DISCUSSION

This article aimed to examine the attitudes of four distinct groups of students toward online learning covid-19. It examines individuals' behavioral and emotional responses to online learning, including positive and negative feelings. The findings were presented to address the research questions. The first issue to be addressed was students' attitude toward online learning.

Based on the result, it is shown that the students at 4 Islamic universities in Aceh have a positive attitude toward technology integration into education. As shown in table 4, 85.86 % of students explicitly stated that they were actively involved in discussions during online learning. This indicates that students have a positive attitude and response towards online learning.

Although online learning is fundamentally different from traditional or offline learning and may result in a variety of issues, as mentioned by Khlaif et al., (2021) in their research findings, most students in Palestine reported that online learning has widened digital inequality and threatened their online privacy. When Atmojo (2021) investigated EFL teachers' online professional development experiences during the COVID-19 pandemic, the findings stated that the problems mentioned included (1) instabilities in internet connection; (2) time constraints; (3) a lack of internet quota; (4) a lack of

interaction with other participants; and (5) inadequate facilities and infrastructure.

However, students in Aceh discovered that there were no difficulties in learning through technology during online learning. According to the data in Table 2, students generally provided a positive (71.73 % - 86.92 %) behavioral response while learning using technology during online learning. It signifies that

students participate in a course regularly. According to a study conducted by Shim & Lee (2020), students identified certain beneficial aspects of online learning, such as comfortable educational environments, seamless interactions, and efficient time utilization. These good characteristics might be viewed as reasons students maintain a positive attitude while learning online.

Table 4. Descriptive Data for the Students' Attitudes

No	Items	Positive			Negative		
		A	U	%	S	N	%
1	Participate actively and regularly in online learning	40	97	71.73	31	23	28
2	Actively involved in discussion during online learning	75	89	85.86	18	9	14
3	Completing all tasks of online learning	113	53	86.91	17	8	13
4	Studying seriously during online learning	91	59	78.53	28	13	21

Students' positive attitude can be seen as an indication that students in Aceh were enthusiastic and had a strong desire to succeed and get a deeper understanding of the subject. The interview also revealed that students have a favorable attitude toward online learning.

"Because of the Covid-19 pandemic, we have no choice except to learn online. We regularly participated since the class was beneficial to us." (P21)

Findings from the study show that students respect online learning and take advantage of its opportunities to learn more deeply. According to the interview responses, students expressed a desire to learn them online.

"I am more interested in online learning. I find that I can study and access online learning." (P12)
"I made an effort to attend every session, and I liked the instructors' methods of instruction. Thus, at least for me, learning new concepts was easier, and the lecturer allowed everyone to express their thoughts and views." (P84).

Table 4 contains information on students' views regarding online learning,

including how students feel about online learning. According to the questionnaire, participants reported positive and negative feelings toward online learning. From the data, it was discovered that 39.27 % of students provided a "somewhat satisfied" response to online learning, and 75 respondents, or (31.94 %) of respondents stated that they expressed their satisfaction with online learning. During the Covid-19, just 28.80 % of respondents reported "dissatisfied" with online learning.

Table 5. Descriptive Data for Students' Satisfaction

Variables	Category	N	%
Feeling about attending classes virtually	Satisfied	61	31.94
	Somewhat satisfied	75	39.27
	Not satisfied	55	28.80

Online learning for students elicited both positive and negative responses from the students. Negative feelings have been shown to harm performance and health in previous research (Houlihan et al., 2009). All students who took part in the survey indicated negative feelings such as tension, frustration, overwhelm, boredom,

and pressure. Such negative attitudes were predicted when faced with an online learning situation, given the uncertainty in education and life in general brought on by the pandemic (Hodges et al., 2020). These negative attitudes were attributed to various factors, including the overwhelming quantity of assignments, the lack of computer and/or Internet connection, the monotony of the classes, and the students' own inability to comprehend and retain what was being taught. The problem occurred during online felt by the participant stated in the interview:

"We are facing difficulties during online learning. They are related to the uncertain time, but it is also difficult to understand the explanations about the material presented due to a shortage of facilities and connections" (P98).

According to a previous report on online learning, students' complaints included scheduling issues, dropouts of class, network instabilities, unilateral interactions, and lost concentration (Shim & Lee, 2020; Sintema, 2020). Instructors do not use technology to increase student learning since exploring, assessing, and using technology takes time (Francom, 2020).

The current study's findings demonstrated that students had a positive response in terms of feeling satisfied with the integration of technology into education while participating in online learning. Students' satisfaction with their online learning can also be assessed through an interview.

"We value meaningful learning and stimulating discussions. We are familiarizing ourselves with online learning programs and discussing them with colleagues. Communication is also vital. I always seek my colleagues for help when I don't understand something. My colleagues also contact me with questions. So, we communicate and learn from each other." (P37).

Positive responses and satisfaction with online activities, tasks, and interactions, and an increased ability to participate, perform, or express emotions online are all related to a high level of online learning attitudes. Developing meaningful technology-based knowledge is essential for all learners to maximize their learning capacity (Ahmadi, 2018; Baloran et al., 2021). The rapid shift to online education can help students and teachers strengthen their skills in technology. Nonetheless, gaining technological proficiency and effectively integrating technology into education takes time and effort. The obstacles are time, training, technological assistance, access, instructor belief/motivation, and other variables (Francom, 2020). Students' attitudes toward online learning through technology integration require teachers to always improve their competence both in the form of joint and personal training. In addition, suitable facilities and infrastructure are required.

CONCLUSION

Students show a positive attitude (78.53 % - 86.91 %) towards technology integration into education during online learning. Even they showed their satisfaction (satisfied 31.94 %) and (somewhat satisfied 39.27 %) when integrating technology into the course. A positive attitude can be used as an indication that students in Aceh were enthusiastic and had a strong desire to succeed and get a deeper understanding of the subject.

This current study explores students' attitudes toward technology integration during online learning. According to several factors, this most recent study has certain limitations. Due to the small number of participants, there may be more incomplete data. It is necessary to include a larger number of people to examine education in general and the views of students toward online learning and its impacts. The findings of this research can be a consideration dealt with the policy of online learning in the future at the higher education level. However, it

needs to be carefully generalized since the context is very specific.

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