Information System Application Use on Blended Learning Readiness Analysis

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Abstract

Changing in learning method as a Covid-19 Pandemic effect force educational institution to modified learning system. Learning activity shift from face-to-face learning to online learning. This research aims to test and analyze the influence of using information system applications on blended learning readiness. Research data were collected by distributing the questionnaire through the student. This research conducts a purposive sampling technique. Research data were tested by conducting validity test, reliability test, and regression analysis. The research's result shows that there is a positive influence of information system application use on blended learning readiness. This research implies that using information systems application help student in accomplishing study by online learning. The readiness of student and institution needed to the successful of blended learning implementation. Future research should consider the student attitude as well as lecturer capabilities in blended learning.

Keywords: Information System Applications Use, Blended Learning Readiness, Covid-19 Pandemic.

1. Introduction

Technological advancements have entered the 4.0 era which prioritizes the use of various sophisticated information systems in the process of completing tasks. This motivates educational institutions to develop various learning methods that can take advantage of technological sophistication. Various application platforms are offered to simplify the learning process. So that the modification of learning methods also evolves. The learning method, which was initially carried out in a traditional face-to-face manner, then slowly shifted to a blended learning or e-learning method that involves elements of information technology to support the achievement of learning objectives.

Moreover, the pandemic that has affected all countries including Indonesia has forced the government to issue policies related to changes in learning processes and methods. Educational institutions are required to carry out an online education process in the middle of the ongoing semester. Unintentionally, Educational institutions implement the blended learning method at the beginning of the pandemic that occurred last March.

This research is motivated by this condition, so it tries to analyze how the influence of various information system applications use on the readiness of blended learning during the pandemic.

Various studies related to the blended learning method have been carried out by previous researchers. The results of research conducted by Yulia (2016) show that student is ready for studying using the blended learning method. Their readiness is the main stage of blended learning implementation readiness. While another finding shows that student readiness for blended learning motivates them to be more responsible in attaching study goals (Sriwichai & Chuanpit, 2020).

Furthermore, technology give a good impact on the readiness of blended learning implementation. This readiness of the institution can be shown by providing academic staff and a well-prepared information system in running blended learning adoption (Qazaq, 2012). Information systems use ease users in gaining the latest information effectively and efficiently. Advance information technology offer in the learning process helps students in gaining the advantage of simplifying their way to reach study goals (Shaibi & Rusli, 2017).

The novelty of this research is analyzing the impact of information systems application use that support blended learning that is familiar during the pandemic and also their impact on the blended learning readiness method implementation which was decided accidentally when the pandemic punched.

2. Literature Review

Information System Use

The initial use of various information systems in the world of education is still rarely used. However, the pandemic has become a new starting point for significant changes in the world of education. Various applications are offered to students to support the learning process. Some of the familiar applications used such as Google Class Room, Google Meet, Zoom Meeting, WhatsApp Group, e-mail, etc.

Information system use has made the blended learning process easier. Research related to the usefulness of information systems has been carried out by many researchers such as Shaibi & Rusli (2017) research showed that student really interest in using technology while doing learning process. It became effective factor in increasing their performance. This indicate that students are ready to use technology and implementing blended learning method. While the easier and more familiar each information technology used will be a main successful key in implementing Blended Learning (Harris, 2009). In addition, there is no impediment in using technology which means student is more adaptable learning by using advance technology. Therefore, students are ready in implementing blended learning (Yulia, 2016).

Blended Learning Readiness

Blended learning defines as a combination of traditional learning and online learning. As a hybrid learning, blended learning defines in three criteria by Whitelock (2013) which are:
(1) a mixture of traditional learning and online web-based learning
(2) a mixture of information system and technology platform offered to run blended learning
(3) a mixture of curriculum approach which is nit affected by information technology use.

It can be referring that student were ready to join and implementing blended learning method if there is a support of information technology aspect. While Meng Tang & Lee (2013) stated that blended learning sucesful is on the readiness of students in adopting the new method. In implementing new method the readiness of student is really needed. Since implementing blended learning force student to become more independent in managing time and task. Student are demanded to have own

responsibility in managing study plan, time, attaching tasks, and achieving study goals of learning activities (Tsai, 2010).

Conceptual Framework

The conceptual framework of this research is depicted in the following Figure 1.
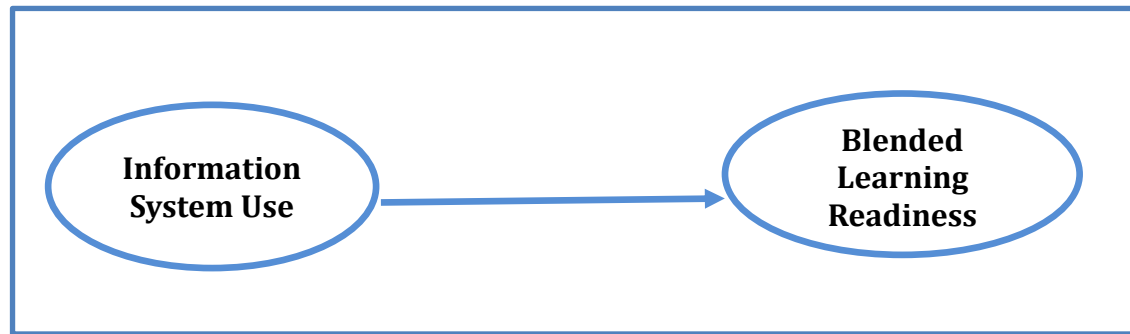
Figure 1. Conceptual Framework

This research conceptual framework figures out the main examination of this research which analyzing the effect of information system use to blended learning readiness. This research places a hypothesis (H1): Information System Use has positively influence on Blended Learning Readiness

3. Methodology

This research is quantitative research using a survey method. The instrument used is a questionnaire distributed to the respondents as a sample in this research. The population of this research is students majoring in accounting who use various applications offered by lecturers or departments to support blended learning. The sample was selected by purposive sampling. The data collected were 112 samples. The data is tested in several stages, validity testing to test whether the instrument used is valid or not. Reliability testing to test the reliability level of the research instrument, then regression test to test and prove the research hypothesis.

This research variable consists of the independent variable and the dependent variable. the independent variable in this study is the use of information systems, while the dependent variable is the blended learning readiness.

4. Results and Discussion

Validity Test

According to (Ghozali, 2016) validity test is a tool to measure a questionnaire instrument used in research, whether the research's indicator is valid or not. Here is the test result of the validity value both independent variable and dependent variable. Based on the Table 1. Validity Test Result, the r-test value is greater than the r-table value, so that all indicators variables in this study are valid with a significance level of 0.000.

Table 1. Validity Test Result

Variable	R Test	R Table	Sig. Value	Conclusion
ISUSE1	0.409	0.1840	0.000	**Valid**
ISUSE2	0.63	0.1840	0.000	**Valid**
ISUSE3	0.459	0.1840	0.000	**Valid**
ISUSE4	0.518	0.1840	0.000	**Valid**
ISUSE5	0.436	0.1840	0.000	**Valid**
ISUSE6	0.467	0.1840	0.000	**Valid**
ISUSE7	0.576	0.1840	0.000	**Valid**
ISUSE8	0.462	0.1840	0.000	**Valid**
ISUSE9	0.543	0.1840	0.000	**Valid**
BLR1	0.946	0.1840	0.000	**Valid**
BLR2	0.95	0.1840	0.000	**Valid**
BLR3	0.936	0.1840	0.000	**Valid**

Reliability Test

The results of the reliability test are shown in the following Table 2. Reliability Test Result.

Table 2. Reliability Test Result

Variable	Cronbach Alpha	Standard	Conclusion
ISUSE	0.64	> 0.6	Reliable
BLR	0.93	> 0.6	Reliable

These results indicate that the reliability of the Information System Application Use variable shows a Cronbach Alpha value of 0.64. This value is greater than 0.6, which means that the variable has good reliability. While the reliability value of the Blended Learning Readiness variable shows a value of 0.93, this value is more than 0.6, so it can be concluded that the reliability of the Blended Learning Readiness is very good. Therefore, all variables in this research are reliable and feasible.

Regression Analysis

Regression analysis is used to examine the correlation among variables. The regression result is figure out at Table 3. Regression Result Test.

Regression Test Result

Hypotheses	Causality	Prediction	t-value	Sig. Value	Result
H1	ISUSE --> BLR	Positive	3.596	0.000	Supported

Based on Table 3. Regression Test Result above shows that the t-value is 3.596 with a significance level of $0.000 < 0.05$. This indicates that the hypothesis (H1) is accepted or supported. This result shows that the information system use positively influences blended learning readiness.

Various information system applications that are increasingly being used influence the level of implementation blended learning readiness at educational institution. This shows that the student enthusiastic to use information system application and ready to learn using the blended learning method.

5. Conclusion

This research finds that there is a positive influence of information system use on blended learning readiness. Therefore, H1 is accepted. This result indicates that student can adapt with the new method of learning by using such advance information system application offered. The easier the technology use the high intention of their use. Using those information system application helps them in running learning process. Students are ready enough to overcome the accidental shifting learning method. But then, education institution needs to provide more advance, comprehensive and integrated system to make a successful blended learning implementation.

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