Effectiveness of Online Learning in Auditing Course

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Abstract

This study analyzes the differences in the effectiveness of several online learning in the Auditing course. The Auditing course was held in four models include 1). Without class and assignments 2). The class without giving assignments 3). The class with assignments but without discussion 4). The class with assignments and discussions. This study uses primary data obtained by questionnaires to 105 undergraduate students who have taken auditing courses at several universities in Yogyakarta Special Region. The data were analyzed by the analysis of variance and the Bonferroni test. The results showed that students' understanding of auditing courses varied between some online learning models. The highest student understanding occurred in the class with assignments and discussions. The second rank is the class without assignments is in the third level. Meanwhile, the lowest level is the online learning model without classes and assignments. However, the score difference between the class with assignments but without discussion and the class with assignments and discussions is not significant. It exhibits that the discussion of online assignments has no impact on student understanding.

Keywords: *online learning, auditing, effectiveness*

INTRODUCTION

The COVID-19 pandemic has forced universities to transform learning media. Education must ensure that teaching and learning activities continue, even though students are at home. Educators are required to design learning media by utilizing online media (Atsani, 2020). Online teaching is an alternative teaching method in responding to crises (Wang et al., 2020). Online learning will be very effective if it fulfills the essential components in learning, namely discursive, adaptive, interactive, and reflective (Oktavian, 2020). If these elements are integrated with the learning environment, online learning can realize knowledge transfer and vice versa.

The development of information technology has a significant influence on changes in the field of education. The use of technology in teaching and learning activities is a form of transformation from conventional to modern methods. The internet has been integrated into a tool that is used to complement learning activities (Martins, 2015). Online learning is a learning system that is carried out without face to face but uses a platform that can help the learning process even though they are geographically separated. In online learning, there is a communication pattern between students and lecturers dominated by a remote system via the web/internet, and there are no face-to-face meetings. All teaching materials, assignments, consultations, exams, and other learning activities are delivered via the internet.

Online learning is independent and highly interactive. This method provides more learning experiences with text, audio, video, and animation, all of which provide accessible communication (Arnesti & Hamid, 2015. Adequate facility and operator support allows online learning to create active interactions (Arnesti & Hamid, 2015). Hodges et al., 2020). This form of online education contains many similarities

with face-to-face classes. However, online learning has several weaknesses due to the need of the internet network requires adequate infrastructure, requires many costs, communication via the internet has various obstacles/slows. However, this method has an advantage due to interaction between students and lecturers can be held anywhere and anytime. It is reaching students in broad scope and making it easier to refine and store learning materials. This learning model utilizes telecommunication technology, especially in helping lecturers and students, especially in learning activities (Basori, 2017). Information technology acts as a medium that connects students with lecturers and is an effective means for evaluating learning (Sriwihajriyah et al., 2012).

The development of information technology has a major influence on changes in the field of education. The use of technology in teaching and learning activities is a form of transformation from conventional to modern methods. The internet has been integrated into a tool that is used to complement learning activities (Martins, 2015). Online learning is a learning system that is carried out without face to face but uses a platform that can help the learning process even though they are geographically separated. In online learning, there is a communication pattern between students and lecturers dominated by a remote system via the web/internet, and there are no face-to-face meetings. All teaching materials, assignments, consultations, exams, and other learning activities are delivered via the internet.

The effectiveness of online learning courses Auditing depends on the learning method used. This course has unique characteristics because it requires illustrations of actual cases. Thus the learning process that only emphasizes lectures without any assignments as illustrations of real issues becomes ineffective. This learning model focuses on understanding the material only; students do not have an idea about applying the material in the real world. Furthermore, learning based on the lecture model is followed by giving assignments to make students think about using existing theories in the real world. However, limitations in online learning make it challenging to discuss the assigned tasks. The quality of the internet network and bandwidth requirements are obstacles to the implementation of discussions so that lecturers often do not discuss the tasks given. Meanwhile, in some classes with a good internet network and adequate bandwidth, it is possible to discuss coursework assignments.

One of the courses in the Accounting Department that requires a different learning model is auditing. Learning auditing courses requires illustrations of actual cases in applying knowledge or concepts obtained from lectures and textbooks (Wibowo, 2011). Auditing courses require case-based learning methods so that this course cannot be held in the form of tutorials/lectures. To understand the audit process, students need illustrations of actual cases to apply the concepts contained in textbooks.

So far, the Auditing course has been held in four models include 1). Without class and assignments. 2). The class without assignments 3). The class with assignments but without discussion 4). The class with assignments and discussions. Does the effectiveness of online learning vary between these models? The research will answer this question.

LITERATURE REVIEW

Several researchers have examined the effectiveness of online learning showing different results. Arnesi & Hamid (2015) analyzed the effectiveness of online learning in English lectures. Using the ANOVA analysis tool, the research results of Arnesi & Hamid (2015) show that online learning media is more effective than offline learning media. Meanwhile, Kunarto (2017) examines the effectiveness of online learning for Indonesian language courses using a quasi-experimental model. The results showed that online learning could be applied in an Indonesian language course in the undergraduate program. Online learning can improve students' understanding of the material course. It also provides a more challenging

experience. Furthermore, the results of Oktavian & Aldya (2020) show that online learning will be effective if it applies discursive, adaptive, interactive, and reflective components.

Basically, the Auditing learning process cannot be separated from the demands of the practical world. But, the pandemic Covid-19 outbreak all activities so that universities cannot run offline learning. All learning must be carried out online, including Auditing learning. The limitations of online learning make Auditing courses, which require unique specifications, is carried out in various models according to the conditions of facilities and infrastructure and the readiness of the lecturer. Therefore, the learning of Auditing courses is to be carried out in four models. In the first model, the lecturer just uploads course material on the website without class and assignments. In the second model, the lecturer creates a class with two-way communication, but most of the discussion just covers the theory, and he does not give an assignment to his students. In addition to providing theory, in the third model, the lecturer gives assignments, but there is no discussion about it. Moreover, in the fourth model, the lecturer creates a class, gives an assignment, and discusses it. The learning effectiveness will vary between some online learning models. This study examines whether there are differences in the effectiveness of online learning in the Auditing course between some learning models.

RESEARCH METHOD

This study utilizes the primary data obtained by sending questionnaires to undergraduate students who have taken auditing courses at several universities in Yogyakarta Special Region. This study will take a sample of 105 students. The large sample (100 or more) will be normally distributed so that the rules of parametric statistics can be used. The collected data represent the students' personalities and their views towards online learning of the Auditing course.

The effectiveness of online learning is measured based on students' answers to statement about students' understanding and ability to explain the course material. Meanwhile, the student personality and their understanding of the course material were measured by a Likert scale ranging from strongly disagree (SD), disagree (D), agree (A), and strongly agree (SA). The collected data is tested by validity and reliability test to get an excellent result. A validity test was conducted by Pearson correlation. Meanwhile, Cronbach alpha is utilized for the reliability test.

The differences in the effectiveness of online learning between some learning models were analyzed using ANOVA (Analysis of Variance). This method is accompanied by the Bonferroni test to counteract the comparisons between one online learning model and another. Therefore, it can be identified whether the efficacy of the four online learning models differs from each other or only one model has a different effectiveness rate. ANOVA is used to test whether there are differences in the effectiveness of online learning in the Auditing course between learning models without assignments, with assignments but without discussion, and with assignments and accompanied by discussions. ANOVA is a parametric statistical test so that it requires testing whether the sample is normally distributed.

Moreover, this study analyzed the differences in student understanding of some online learning models. These models include 1). Without class and assignments 2). A class without assignments 3). The class with assignments but without discussion 4). The class with assignments and discussions. This study analyzes whether the effectiveness varies between the four online learning models.

FINDING AND DISCUSSION
Results

The study needs reliable and valid data. The data obtained must be consistent or have high reliability and reveal what will be measured or have high validity. Likewise, for statistical inference methods (ANOVA and Benferoni Test) to be applied, the sample must be normally distributed.

Reliability testing with the SPSS program obtained a Cronbach alpha for the student's understanding of the Auditing course of 0.917. It means that the instruments are valid and provide consistent measurement results. The validity test, based on Pearson correlation, exhibited that the correlation between each question score on the total score of students' understanding is significant. Thus, each question item is valid. Normality test with Kolmogorov-Smirnov test resulted in P-Value > 0.05. It means that students' understanding of the auditing course is normally distributed so that the statistical inference can be applied.

Testing on Differences of Students' Understanding in Auditing Courses

Testing student understanding in the Auditing course is carried out by analyzing differences in understanding scores of the four online learning models. These models include 1). The class without giving assignments 2). The class with assignments but without discussion 3). The class with assignments and discussions 4). Without class and assignments. Differences in student understanding of the Auditing course were tested by ANOVA at the $\alpha = 5\%$.

Before the ANOVA test is done, the previous action is to identify the variance similarity of each model. The similarity variance is tested by the Levene test (Ghozali, 2011). The test results of the P-value > 0.05 indicated that the data come from a population with the same variance so that the ANOVA assumption could be fulfilled. Moreover, the results of the ANOVA test showed that the F statistic value was 33.262 and was significant at $\alpha = 5\%$. Thus, there are differences in student understanding of the Auditing course between the four learning models, or at least there is one model with a different score.

The lowest score of 1.883 occurs in the first model when the lecturer just uploaded a course material without class and assignments. In this model, students have difficulty understanding about Auditing course. The second model exhibited a students' understanding of 2.255 points. It means that the student's understanding is higher when the lecturer creates even though without assignment. The third model results in 2.453 points in students' understanding. This model has a higher score than the second model. Meanwhile, the highest score of 2.479 points occurs when the lecturer gives an assignment and discusses it. In this model, the students get the best understanding of the Auditing course (Table 1).

Table 1. Student Understanding of Auditing courses

	First Model	Second Model	Third Model	Fourth Model	F-Statistic ANOVA
Mean	1.883	2.255	2.453	2.479	33.262
Number of Responden	30	30	19	26	105

Furthermore, the results of the ANOVA analysis were accompanied by the Bonferroni test to find out the model with different scores. The results show that the students' understanding scores in the first model are different from the other three models. In the first learning model, the lecturer just uploaded course material on the website without creating a class and assignments. This model produces the lowest score in student understanding. The auditing course has unique specifications because this course

requires illustrations of actual cases in applying knowledge. The learning model that is carried out through uploads course material without class and assignments is ineffective in transforming knowledge. Students have difficulty understanding the course material.

In the second model, the lecturer creates class, but most of the discussions just cover the theory without assignments. Bonferroni's test results show that students' understanding scores in this model are different from the other three learning models. The understanding score in the second model is higher than the score of the first model but lower than the score in the third and fourth models, the online learning model with a class, even though without assignments, provides a better understanding than the learning model without class and assignments. The class encourages students' understanding of Auditing courses.

In the third model, the lecturer gives assignments but no discussion about them. Bonferroni test results exhibit that students' understanding of this model is different from the other three learning models. The score in the third model is higher than the first and second models. However, the score in the third model is not different from the understanding score in the fourth model. Students' understanding whenever the lecturers create classes and assignments is better than the understanding when the learning model is carried out without class and assignments. Assignments encourage students' understanding of auditing courses. Students are motivated to finish the assignment so that they have a better understanding.

Furthermore, the Bonferroni test showed that students' understanding of the fourth model was higher than the other models. However, this score was not significantly different from students' understanding of the third model (Table 2). It means that the discussion of assignments through the online method is not effective for the student's understanding. The limitations of online learning make students not have advanced knowledge when the lecturer creates discussion. The auditing course has unique specifications because it requires illustrations of actual cases in applying knowledge. Online discussions cannot provide students with images of real issues in auditing science. The online discussion has no impact on students' understanding.

Table 2. Bonferroni Test on Some Learning Models

(I) Treatment	(J) Treatment	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-.37167*	.06408	.000	-.5441	-.1992
	3	-.56930*	.07277	.000	-.7651	-.3735
	4	-.59551*	.06650	.000	-.7745	-.4165
2	1	.37167*	.06408	.000	.1992	.5441
	3	-.19763*	.07277	.047	-.3935	-.0018
	4	-.22385*	.06650	.006	-.4028	-.0449
3	1	.56930*	.07277	.000	.3735	.7651
	2	.19763*	.07277	.047	.0018	.3935
	4	-.02621	.07491	1.000	-.2278	.1754
4	1	.59551*	.06650	.000	.4165	.7745
	2	.22385*	.06650	.006	.0449	.4028
	3	.02621	.07491	1.000	-.1754	.2278

*. The mean difference is significant at the 0.05 level.

CONCLUSION

Students' understanding of auditing courses varies between several online learning models. The lowest student understanding occurred when the online learning was done without class and assignments, followed by learning models with classes but without assignments, learning models with classes and assignments, but without discussion, and learning models with classes, assignments, and discussion. However, the difference between the learning model with class and assignments but without discussion with the learning model with classes, assignments, and discussions is not significant. It shows that the discussion of online assignments has no impact on student understanding. It is suggested for the lecturers to create classes and assignments whenever they teach the Auditing course so that the students get an adequate understanding of this course.

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