THE EFFECTIVENESS OF QUIPPER SCHOOL-BASED E-LEARNING ON STUDENT ACCOUNTING LEARNING OUTCOMES

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Abstract

This research aims to determine the effectiveness of the Quipper School application on accounting learning outcomes at SMA W.R. Supratman 2 Medan. This research uses an experimental method. Sampling in this research was carried out using random sampling. The research subjects were all students of class XI IPS SMA W.R. Supratman 2 Medan, totaling 96 people. The instruments used were interviews and tests. The test is in the form of multiple choices, totaling 20 questions, and is carried out with a pre-test and post-test. The results show that the average value and learning outcomes of the experimental class using the Quipper School application are higher than those of the control class, which does not use the Quipper School application. Based on hypothesis testing using the SPSS version 20 program, the value obtained was Sig tailed = 0.003 with a significant level (α = 0.05).

Keywords: *Quipper School Application, Learning Outcomes*

A. Introduction

The increasingly developed information and communication technology has a huge impact on the learning process, so that it can improve the quality of learning and speed up students' ability to remember material. This increase is supported by the use of digital technology, which can be accessed in various regions at any time. One of the uses of information and communication technology that is used to increase the competence and qualifications of students is called the e-learning process. According to (Haryanto, 2017), e-learning is a learning process carried out using the internet and other computer networks. E-learning can also be defined as learning that uses electronic media and computer technology that has internet access. The characteristics of e-learning based on opinion (Hanum, 2013) are: 1) having content that is relevant to the learning objectives; 2) using instructional methods, such as presenting examples and exercises, so that learning can be understood; 3) using media elements such as words and images to convey learning material; and 4) being designed for independent learning.

The use of e-learning is increasingly being used nowadays, starting with teachers, students, lecturers, or tutors in tutoring. The use of e-learning media in the learning process has a great influence on various types of learning, such as mathematics, accounting, physics, chemistry, biology, economics, and other subjects. Apart from economics and mathematics, accounting is also a subject for social studies majors, which is often considered difficult and boring for students. This happens because there is no use of media in the learning process. Especially for lessons that take place during the day, it can make students less enthusiastic about studying and also less focused on doing the assignments given.

At W.R. High School, Supratman 2 Medan also had a similar thing happen. When teachers taught accounting lessons, there were still teachers who used conventional learning, or what is often called lecture method learning, without using tools or other supporting media. This results in students experiencing difficulties learning accounting. Difficulties experienced by students include not being able to complete homework, daily assignments, and exams seriously, having difficulty understanding what the teacher is saying clearly, and also not using the accounting books that have been given by the school carefully. Student learning outcomes were also affected by this incident because students' grades were low and did not reach the KKM determined by the school, namely 75. For this reason, changes are needed in the student teaching process so that the expected grades and abilities can be achieved optimally. One of the many learning media that is very effective in improving student learning outcomes is Quipper School. Quipper School is a platform that connects students with teachers to carry out online assignment distribution. The services can also be adapted to existing lessons from the Indonesian curriculum, such as Indonesian, English, mathematics, science, and social sciences, which can be available on the Quipper School application (Hurriyati & Arisandy, 2018).

There are several stages when using Quipper School, namely: (1) Register an account. In this section, teachers and students must register an account first when they want to start using Quipper. (2) Log in using a Quipper account. The account used when logging in is the one that was previously registered. Teachers and students can log in at link.quipper.com (for teachers) and learn.quipper.com (for students) (Buntoro et al., 2018). The use of Quipper School is as a place to work on assignments given by the teacher, and all students can open the material. If some students experience difficulties, they can send reviews via the message feature or study groups that are available about material they do not understand. Teachers can also notify students to work on and collect assignments that have been sent. As feedback, students who have completed an assignment can collect it by uploading a

file or clicking finish in the assignment section, and the assignment can be reviewed again. If there are wrong or inaccurate answers, students can see the explanation given by the teacher in accordance with the question number. All of this aims to ensure that students can learn and understand the material presented even though they are not meeting face-to-face (Lingga, 2016). Based on the description above, the author is interested in conducting research with the title "Effectiveness of Quipper School-Based E-Learning on Student Accounting Learning Outcomes".

B. Methodology

This research uses a method that is an experimental research method. According to Masyhud, experimental research is research conducted to determine whether or not there is an influence or impact of a particular treatment on changes in a particular condition or situation (Elsani et al., 2020). Meanwhile, (Nurjanah et al., 2021) state that the experimental method is a method that can be used by teachers during learning activities, when students carry out experiments on something, pay attention, experience, and prove for themselves something they are learning. The subjects of this research were all students in class XI IPS SMA W.R. Supratman 2 Medan, as many as 96 people, with details of class XI IPS-A, as many as 44 students, and class IX IPS-B, as many as 52 students. The class is divided into two categories, namely class XI IPS-A as the experimental class, which will use Quipper School learning media, and class XI IPS-B as the control class.

The data collection technique used in this research was a test. The test is carried out before and after treatment. The test given is in the form of multiple-choice questions, with 20 questions quoted from the student handbook. In this research, the data analysis techniques are determining the average value, standard deviation and variance, normality test, homogeneity test, and hypothesis test. The normality test is carried out to determine whether the sample has a normal distribution or not. After the data has been tested for normality, a homogeneity test will then be carried out, which aims to determine whether the sample data in the population has the appropriate variance or not. The final test is a hypothesis test, which is carried out so that researchers can determine whether student accounting learning outcomes taught using Quipper School media will be higher or not than accounting learning outcomes taught without using Quipper School media.

C. Findings and Discussion

- **Description of initial ability (pre-test)**

Before giving treatment, students will first be given a pre-test in the form of 20 multiple-choice questions. The pre-test aims to determine students' initial abilities in accounting lessons before using Quipper School media. The following pre-test data results obtained by students are shown in Table.1 below:

Table.1: Result for the Experimental Class and the Control Class

No	Experimental class pre-test scores			Control class pre-test scores		
	Score (X1)	Frequency	F.X1	Score (X2)	Frequency	F.X2
1	30	2	60	30	1	30
2	35	4	140	35	2	70
3	40	6	240	40	2	80
4	45	5	225	45	8	360
5	50	3	150	50	7	350
6	55	4	220	55	5	275
7	60	6	360	60	7	420
8	65	4	260	65	2	130
9	70	1	70	70	1	70
Amount			**1725**	**Amount**		**1785**
Average			**49,29**	**Average**		**51,00**
Standard Deviation			**11,385**	**Standard Deviation**		**9,220**
Variances			**129,622**	**Variances**		**85,00**

Based on the table above, the pretest scores most often obtained bystudents in the experimental class before learning using Quipper School media were 40 and 60. Meanwhile, in the control class, the highest pretest scores obtained were 45, 50, and 60.

- **Final Capability Description (Post-Test)**

Students' final abilities (post-test) after the implementation were carried out in class XI IPS-A as the experimental class and class XI IPS-B as the control class. This post-test aims to determine students' final abilities after using Quipper School media during accounting lessons. The following post-test data results obtained by students are shown in Table. 2 below:

Table.2 Post-test Results for the Experimental Class and the Control Class

No	Experimental Class Pretest Score			Control Class Pretest Score		
	Score (X1)	Frecuency	F.X1	Score (X2)	Frecuency	F.X2
1	65	2	130	60	5	300
2	70	4	280	65	3	195
3	75	3	225	70	4	280
4	80	9	720	75	9	675
5	85	5	425	80	3	240
6	90	4	360	85	6	510
7	95	5	475	90	4	360
8	100	3	300	95	1	95
Amount			**2915**	**Amount**		**2655**
Average			**83,29**	**Average**		**75,86**
Standard Deviation			**9,996**	**Standard Deviation**		**10,109**
Variances			**99,916**	**Variances**		**102,185**

Based on the table above, the post-test results for the experimental class after being implemented using Quipper School media were 95 and 85, and the number of experimental class students who got scores below the KKM was 6 people. Meanwhile, the post-test for the control class got results of 85 and 75, and the number of control class students who got scores below the KKM was 12 people. After the research data is obtained, calculations are then carried out using the formulas for average, standard deviation, and variance, which can be seen below:

Table. 3 Mean Value, Standard Deviation, and Variance

No	Activities	Eksperimental Class		Control Class	
		Pretest	Post-test	Pretest	Post-test
1	Mean	49,29	83,29	51,00	75,86
2	Standar Deviasi	11,385	9,996	9,22	10,109
3	Varians	129,622	99,916	85,00	102,185

Next, carry out a normality test. The normality test applied is Liliefors, which is carried out to show that the sample data originates from a normally distributed population at a significance level of 95% and $\alpha = 0.005$ with the criteria

that if Lcount < Ltable or Sig value > 0.005, then the data is normally distributed. The results of the pretest and post-test normality tests can be seen below:

Table 4. Pre-test and Post-test Normality Test

	Learning Outcomes	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
Pretest	Eksperiment	.141	35	.076	.943	35	.068
	Control	.121	35	.200	.967	35	.357
Post-test	Eksperiment	.143	35	.067	.951	35	.120
	Control	.134	35	.116	.940	35	.057

Based on the table above, it can be seen that the Sig. The pretest in the experimental class and control class was greater than 0.005, namely 0.068 and 0.357. This shows that the pretest scores for the experimental class and control class have a normal distribution. Next is the Sig value. The post-test for the experimental class and control class is greater than 0.005, namely 0.120 ± 0.057. This shows that the post-test scores for the experimental class and control class have a normal distribution. After the research data is normally distributed, the next prerequisite test is the homogeneity test. Data is declared homogeneous if Fcount < Ftable or Sig value >0.05. The following homogeneity test calculation results can be seen below:

Table.5 Pretest Homogeneity Test

Pre-test

Levene Statistic	df1	df2	Sig.
3.658	1	68	.060

Based on the table above, it can be seen that the Sig. Pretest 0.060 > 0.05, which means that the pretest data is homogeneous. Furthermore, the results of homogeneity test calculations for post-test data can be seen below:

Table.6 Post-test Homogenitas

Post-test

Levene Statistic	df1	df2	Sig.
.002	1	68	.961

Based on the table above, it can be seen that the sig. Post-test 0.961 > 0.05, which means that the post-test data is homogeneous.Next, the two research data that meet the criteria for normal distribution and homogeny will be carried out through hypothesis testing. This test uses a t-test, with the applicable test criteria

being that H0 is accepted if tcount > ttable or Sig value. (2-tailed) < 0.05. The following table of hypothesis test calculation results can be seen below:

Table.7 Hypothesis testing

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
hasil belajar	Equal variances assumed	.002	.961	3.091	68	.003	7.429	2.403	2.634	12.224
	Equal variances not assumed			3.091	67.991	.003	7.429	2.403	2.633	12.224

Based on the results of the hypothesis test that has been carried out, it is concluded that H0 is rejected and Ha is accepted because the Sig value. (2-tailed) is 0.003 < 0.05. This means that the learning outcomes for accounting taught using Quipper School media are higher than the learning outcomes for accounting taught without using media.

- ***Discussion***

Before learning was given using Quipper School media, the initial stage was to give a pretest to both classes, and from the results of the pretest the average score for the experimental class was 49.29 with a standard deviation of 11.385 and the control class was 51.00 with a standard deviation of 9.220. . Where not a single student passed the KKM, namely 75. So it can be concluded that there is no significant difference between the initial abilities of experimental class and control class students. This can be interpreted as meaning that both students have the same abilities before different treatments are applied.

After being given a pretest, the experimental class carried out learning using Quipper School media. Meanwhile, the control class carried out learning without using media. After the learning process, the researcher made a post-test for both classes, and the final score was that the experimental class got an average

score of 83.29 and a standard deviation of 9.996. The control class obtained an average value of 75.86 and a standard deviation of 10.109.

D. Conclusion.

Research that was carried out at SMA W.R Suprtaman 2 Medan, explained that the results of studying accounting with the topic of closing journals had been taught using Quipper School media and the results were higher than the results of studying accounting without using Quipper School media. This is proven from the final calculation of the t-test which obtained a Sig (2-tailed) = 0.003.

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