

The Usage of Schoology and Canvas as Media Based Blended Learning

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Abstract

Lecturers are no longer occupying the single position in conveying knowledge to the digital natives. Hence, they have to adapt the effect of the fourth industrial revolution in the teaching learning process through hybrid learning which combine the face-to-face classroom to the online or offline technology. Thus, this study aims at measuring the students' learning achievement in studying use kinds of media based blended learning at University of Riau Kepulauan, Batam Indonesia. It was a quasi-experimental method with nonequivalent control group design. The population was all of the sixth semester students with purposive sampling technique. The instrument was in the form of written test which have been validated and reliable previously. The data were measured statistically use T-test. The result exposed that pre-test and post-test marks of the two groups revealed a notable enhancement. It recommends to instructors, or curriculum designer in applying such media based virtual learning to encourage learners' accomplishment.

Keywords: *Schoology, Canvas, Learning Media, Blended Learning, Learning Achievement*

INTRODUCTION

The recent education movement cannot be separated from the Fourth Industrial Revolution. It is undisputable that lectures are no longer the only basis in giving the learning information. The current age group is characterized as "digital natives" Prensky (2010) from the intelligence of Information Communication and Technology. Khairul Abdullah (2012) similarly named this group as the alpha generation where the usages of digital technology turn out to be one of their lifestyle features. Moreover, the newer cohort is more attracted to use electronic devices such as smartphones, laptops, gadget, or android. And definitely they can expose Google search, YouTube, Google play store, etc., to access the varieties of material which is linked to the internet. Therefore, the lecturers are no longer occupying the single position in conveying knowledge to the digital generation at this era.

In relation to that, lecturers are compulsory to realize that the technology growth have an influence in instruction. Lecturers have to adjust to the effect of technological revolution in the learning course. Furthermore, the usage of media in the learning process plays a vital role both for lecturers and students. The appropriate media will benefit for lecturers in

presenting the subjects well. Lecturers easily transfer learning materials and attractive to students. The suitable use of media can also stimulate learners' learning spirit. This is in line to a prior research done by Yana and Darwati (2017). In addition, the appropriate learning media likewise encourage their concern and attention to the learning info conveyed in the instruction process. So that students are able to comprehend and engage the learning materials well. Thus it can be highlighted that whether or not, lecturers have to take various advances of ICT as appropriate media in assisting the learning process and achieving the educational objectives in this era.

The specimens of invention in the learning process that apply the development of ICT is blended learning or hybrid learning or virtual learning. It refers to the practice of face-to-face learning and teaching in the classroom which is combining with technology whether online and or offline. In the mean time of the odd semester 2017/2018, I have been using Schoology in my courses. Based on my short-term notes, it seems that the students' learning achievement have enriched, they were interested in the learning process and keen to submit the assigned tasks, they also perform curiosity in following the lectures used Schoology. On the other hand, I found it easier to deliver the learning material resources and supplementary digital references links such as *slide-share*, video in Youtube, etc. In addition, I also found at ease in accepting student tasks, straightly checking and assessing their performance without downloading it first. Then in the even semester 2017/2018 I tried to apply Canvas in the courses. Therefore this research tries to prove scientifically, how extend are the students learning achievement use Schoology and Canvas as a learning media based blended learning. Learning media is the entire tools that can be used in transferring learning messages for lecturers to expand the students' learning involvement. There are some purposes and benefits of learning media for lecturers as well as for students. Smaldino, Lowther, dan Russel (2008) cited by Mantiri (2014) described the purpose of using learning media is “ to *facilitate communication and learning*”, Specifically it will present lively and meaningful teaching learning process for teachers and students, for instance (1) to concrete learning messages, (2)to increase students' learning motivation, (3) to enhance learners' accomplishment, (4) to growth students' learning experiences, (5) to train and encourage students' critical thinking. Additionally, Falahuddin (2014) summarized Kemp and Dayton's idea (1985) that the advantages of learning media can be stated as follow:(1) homogenize learning materials, (2)

address learning materials clearly and interestingly, (3) promote two ways communications in the learning process, (4) help the time management in the learning process, (5) increase the quality of learning achievement, (6) give chance to learn inside and outside of the classroom, (7) rise-up students' positive perception and action toward learning materials and learning process, (8) enlarge teacher's productivities, (9) concreted the abstract materials, (10) provide unlimited space and time area of the learning material contents , and (11) linked the human sense limitation.

Blended learning is an activity that integrates teaching and learning process with technology as learning media. Graham, Allen, and Ur (2003) in Graham (2006) defined blended learning as a combination of learning process with several media, methods and integrated face-to-face and online learning model. Furthermore, a report of study published by NEALS, Melbourne in 2012 describes in more detail that the idea of blended learning can be perceived from various perspectives and cannot be costumed. Generally blended learning can be definite as entirely learning activities based on information and communication technology, and precisely as a learning exercise that aligns the online and face-to-face curriculum based on its every educational background.

Schoology and Canvas are platform kinds (William Fenton, 2018) of Learning Management System (Aaron Qugley) which also known as *Course Management System* (CMS) or *Virtual Learning Management* (VLE). They provide some features that give some possibilities for teacher to create, manage, and share the learning contents and sources in an application. In addition, the teacher can use the features to interact to the students whether inside or outside of classroom. Beside of the computer, the applications can be run and accessed as well as smartphone for OS, Android, or Kindle.

There are several researches that have been conducted related to blended learning. Firstly, Ghahari and Golestan (2013) have studied the effect of blended learning on foreign pupils writing skills in Iran. They matched the marks of the post-test and post-test writing skills of students who were taught through blended learning with those who taught through full of face to face. Blended learning applied was in the form of computer-assisted language learning (CALL). The results obtained showed the skills of students' writing in the blended learning group positive more significant than the full face-to-face group.

Then, Research of Tosun (2015) which aimed at determine the effectiveness of blended learning on the learners 'English vocabulary, at discovery the students' perceptions, and to search out the educational implications of blended learning in a school of Turkey. The blended learning implemented is a Web 2.0 tool that includes Quizlet, spelling city, and snappy word. The results acquired display blended learning does not impact the students' vocabulary mastery. This is expected because of the short time in applying blended learning. However, the students appreciated the learning process based blended learning. The pedagogic implications given that blended learning applications should be maintained completely with digital tools that suitable to the students' needs and interests.

Further research was conducted by Eryilmaz (2015) was an experiments on 110 students at the University of Atilim, Ankara. It measured the effectiveness of blended learning classes with face-to-face classes. Blended learning class was applied in the form of sharing materials, pictures, learning and discussion videos, and online exam. The results describes that the students' achievement who taught use blended learning is more effective rather than them who were thought face-to-face.

This study is dissimilar to the previous related researches as it pursues to examine the students learning achievement use Schoology and Canvas as learning media based blended learning. Moreover, it attempts to prove the hypothesis stated as follows: H_a = there is a significance difference between students' learning achievement through Schoology and students' learning achievement through Canvas; H_o = there is no significance difference between students' learning achievement through Schoology and students' learning achievement through Canvas. Definitely, the results expected provide scientific information for teacher, lecturers or curriculum developer regarding the learning media based blended learning to be used to encourage learners' achievement and promote students' autonomous learning.

METHODOLOGY

This research applied a quasi-experimental method with nonequivalent control group design. It has been conducted at ERM course at the sixth semester students of English Education Study Program in 2017/2018 academic year. The population was 78 students, and the samples were selected with purposive sampling technique characterized by the same level

and course taken and also learn through blended learning. The variables comprised of 2 independent variables, namely the use of Schoology as learning media based blended learning (X1) and the use of Canvas as learning media based blended learning (X2). Then, the dependent variable was the Student learning achievement (Y). The research instrument was in the form of written tests. The tests were prepared relevance to the topics learnt and applied before and after the treatment is given. The validity and reliability have been measured previously. The test aimed at measuring students' comprehension of the learning materials that have been given. Furthermore, the research data obtained was analyzed in statistical analysis using T-test with the help of SPSS. The statistics hypothesis can be stated as follow: if $t_{counted} > t_{table}$, it means H_0 is accepted, and H_a is rejected; but if $t_{counted} < t_{table}$, it means H_0 is rejected, and H_a is accepted. And or it also as follow: If $sig.(2-tailed) > 0.05$, it means H_0 is accepted and H_a is rejected; then if $sig.(2-tailed) < 0.05$, it means H_0 is rejected, and H_a is accepted.

RESULT

A tried out was done in the 8th semester students who have been completely taken ERM courses in the previous semester (2016/2017). This tried out given for the purpose of measure the validity and reliability of the instruments. The total students who have been contributed in tried-out test were 62 students. There were 50 multiple choice questions organized to evaluate the students' knowledge of educational research proposal concepts. After the tried-out was done, we got 30 valid and reliable questions to be set up in data collection.

Pretest was given for both groups (experiment and control). Control group refers to whom Schoology based blended learning have been using in the previous semester, while experimental group refers to whom a new treatment (canvas) was given. The pretest results that have been done can be viewed in the following SPSS Output table:

Table 1.
Group Statistics

	MEDI A	N	Mean	Std. Deviation	Std. Error Mean
ACHIEVEMENT	1	23	68.70	9.087	1.895
	2	24	63.06	7.014	1.432

The table shows that there are 23 students who contributed in pre-test for control group (use media 1/Schoology), and 24 students for the experiment group (use media 2/Canvas). Then, the Mean for Schoology is 68.70 and 63.06 for Canvas. Next, the Standard Deviation is 9.087 for Schoology and 7.014 for Canvas. In addition, the Standard Error Mean for Schoology is 1.895 and 1.432 for Canvas

Table 2:
Independent Samples Test

		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
ACHIEVEMENT	Equal variances assumed	1.494	.228	2.388	45	.021	5.640	2.362	.883	10.397
	Equal variances not assumed			2.375	41.389	.022	5.640	2.375	.846	10.435

The table above describes the pretest data which encompasses of the Lavene's and t-test for Equality of Means. Moreover, it also provides the students' achievement results for equal variances assumed and equal variances not assumed.

Posttests have been done at control and experiment class. Moreover, posttest at experiment class taken after canvas completely used as a learning media based blended learning for a semester, while control class still use Schoology as the same as previous semester. The results can be seen in table below:

Table 3:
Group Statistics

	MEDI A	N	Mean	Std. Deviation	Std. Error Mean
ACHIEVEMENT	1	24	76.94	11.585	2.365
	2	24	73.47	8.074	1.648

The data above explains that 24 students involved in posttest at Schoology, and 24 students at Canvas. Next, the average score for Schoology is 76.94 while for Canvas is 73.47. Then, the Standar Deviation and Standar Error Mean for Schoology is 11.585 and 2.365; while 8.074 and 1.648 for Canvas.

Table 4:
 Independent Samples Test

		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
ACHIEVEMENT	Equal variances assumed	5.053	.029	1.205	46	.235	3.472	2.883	-2.330	9.274
	Equal variances not assumed			1.205	41.079	.235	3.472	2.883	-2.349	9.293

Table 4.4 shows the data found in the posttest namely **Independent Sample Test. It serves the Lavene's and T-test completely with Equal Variances Assumed and not Assumed.** Those data will be defined later on the discussion to answer the research questions and to proof the research hypothesis.

DISCUSSION

Text The purpose of this research are: (1) to measure students' learning achievement through Schoology as learning media based blended learning, (2) to evaluate students' learning achievement through Canvas as learning media based blended learning. (3) to proof the research hypothesis (H_a = there is a significance difference between students' learning achievement through Schoology and students' learning achievement through Canvas; H_o = there is no significance difference between students' learning achievement through Schoology and students' learning achievement through Canvas). The first and second goal can be answered based on the **Group Statistic data of the pretest and posttest** which is summarized in **table 4.5** underneath:

Table 5:
 Summary Data of Pretest and Posttest Score

STATISTIK	SKOR PRETEST		SKOR POSTTEST	
	Schoology	Canvas	Schoology	Canvas
N	23	24	24	24
Mean	68.70	63.06	76.94	73.47
Std.dev	9.087	7.014	11.585	8.074
std error	1.896	1.432	2.365	1.648

mean

Based on the data summary, it is clear that the difference of mean score of students' learning achievement between pretest (68.70) and posttest (76.94) used Schoology is 8.24. It means that there is an improvement on students' learning achievement of 8.24 point. Next, the summary of the data also describes that the mean score of pretest and posttest of learning used Canvas is 63.06 and 73.47. Therefore, the mean difference is 10.41 point, it means students learning achievement use canvas based blended learning was increased. It can be concluded that this results are relevance to the previous research such as Ghahari and Golestan (2013) who have been succeeded to proof the application of blended learning in the form of CALL in increasing the students' writing skill in Iran. It also relevance to Eryilmaz (2015) who proof the effectiveness of blended learning in the form of sharing materials, pictures, learning and discussion videos, and online exam at the University of Atilim, Ankara. Furthermore, the research hypothesis can be defined based on the **Independence Sample Test** data in **table 4.4**. The posttest result on table 4.4 describes **the Lavene's where the $F_{counted}$ is 5.053 and the Significance point is 0.029**. It means the probability score is smaller than 0.05. ($F=5.053$; $p<0.029$) Therefore it can be interpreted that the varians both of groups are not similar or heterogen. Thus the value which is possible to be used for the next step is the values in the **"Equal variiances not assumed"**. Those line value of the t-test informs that the value of $t_{counted}$ is 1.205; the rate of degree freedom (df) is 41.079; Significance two tailed is 0.235; Mean Difference is 3.472; Standard Error Difference is 2.883; Lower and Upper of Difference Confidence Interval is -2.349 and 9.293. If the $t_{counted} = 1.205$ is compared to t_{table} with $df= 41.079$ it found the critical t value is 2.021. Then, it can be measured that $t_{calculated}$ is smaller than t_{table} ($1.205 < 2.021$). It means H_a is rejected and H_o is accepted. Additionally, If the value of sig.(2-tailed) compares to the 5% of significance level it will be found that Sig.(2-tailed) is bigger than Sig level 5% ($0.235>0.05$), it can be interpreted that H_o is accepted and H_a is rejected. Therefore, it can be sum up that there is no significance difference between students' learning achievement through Schoology and students' learning achievement through Canvas). Nevertheless, both media proven succeeded to enlarge students learning achievement.

CONCLUSION

Based on the results and previous discussion, this research can be summarized as follows:

- a. There is a development in students' achievement use Schoology based blended learning as showed by the average difference in score of pretest and posttest (8.24).
- b. There is an enlargement in learners' achievement use Canvas based blended learning which can be evidenced by the average difference (10.41).
- c. There is no significance difference between students' learning achievement through Schoology and Canvas). However, both media demonstrated successful to develop students learning achievement.

REFERENCES

- Aaron Qugley *a digital learning environment to manage all aspects of the learning process*. <https://www.linkedin.com/learning/learning-management-systems-lms-quick-start/what-is-an-lms>. Retrieved 26 November 2017
- Departement of Education and Early Childhood Development. 2012. *Blended learning. A synthesis of research findings in Victorian Education 2006-2011*. Melbourne: NEALS
- Eryilmaz. 2015. *The Effectiveness of Blended Learning Environments*. Contemporary Issues in Education Rsearch-4th Quarter Vol 8, No 4, Pp 251-256.
- Falahuddin, Iwan. 2014. *Pemanfaatan Media dalam Pembelajaran*. Jurnal Lingkar Widayaiswara. ISSN2335-4118. Edisi 1 No.4 Oktober-Desember 2014. P.104-117. www.juliwi.com. Retrieved on 13 November 2017
- Ghahari and Golesan. 2013. *The Effect of Blended Learning vs Classroom Learning Techniques on Iranian RFL Learners Writing*. International Journal of Foreign Language Teaching & Research- vol 1-issue 3- Spring 2013.
- Graham, C. R. (2006). *Blended learning systems: Definitions, current trends and future directions*. <https://www.researchgate.net/publication/258834966>. Retrieved 26 November 2017
- Khairul Abdullah. 2012. <http://khairulabdullah.com/generasi-alpha-generasi-selepas-xy-z/>. Retrieved 12 November 2017

Mantiri, Franky. *Multimedia and Technology in Learning Asia-Pacific International University*.

Prensky, Marc .2001. *Digital Natives, Digital Immigrants Part 1*, On the Horizon, Vol. 9 Issue: 5, pp.1-6,

Tosun. 2015. *The Effects of Blended Learning on EFL Student's Vocabulary Enhancement*. Procedia-Social & Behaviour Science 199 (2015).641-647.

William Fenton.2018. The Best (LMS) Learning Management Systems for 2018. <http://sea.pcmag.com/absorb-lms/10984/guide/the-best-lms-learning-management-systems-for-2018> Retrieved 05 November 2017

Yana, D., & Darwati, F. F. (2017). The Implementation of Android-Based Application as a Media for Teaching English in Simple Present Tense. *Anglo-Saxon*, 8(2), 158–165. <http://journal.unrika.ac.id/index.php/jurnalanglo-saxon/article/view/1215/945>