THE IMPACT OF E - LEARNING ON STUDENTS' ACADEMIC ACHIEVEMENT IN ENGLISH

Ari Saputra & Hidayani
Universitas Gunung Rinjani
arisaputra1985@gmail.com

Abstract

This research aimed at knowing the impact of e-learning on students' achievement. The method used in this study was a quantitative research with one group pre-test and post-test design. The number of students were 43 students and the number of sample was the whole sum of the population (population sampling). The data collection was done by administring pre-test and post-test to the sample of the study. F test used to analyze the impact of e-learning method on students' achievement in english. The statistical analysis has described that the mean score of pre-test and post-test was 71.63 and the mean score of post-test was 80.23. by using F test at the level of significance 5% the present researcher got F> F table. It's mean that e-learning method was impact on students' achievement in english. Furtheremore, by using Tukeys HSD continued test, the researcher got average score from pre-test and post-test were increased. It was suggestted to conduct research using e-learning method with other media such as zoom app or microsoft team.

Keywords: *E-Learning, Student's English Learning Achievement*

INTRODUCTION

The development of the world of information technology today has been so rapid and spread to various sides of human life. The development of information technology has a significant impact on various aspects of life, ranging from government, administration, economics, education, and others. In the field of government known as e-government, while in the economic sector, some people are getting to know what is called e-commerce, e-business, e-marketing and,, even the latest government program today is e-Identity card. Likewise, in education, many have begun to utilize information technology to convey learning with the popular term e-learning. This development is because it is supported by the availability of hardware and software that are increasingly powerful.

Utilization of information technology such as e-learning, one of which began web-based learning, will bring significant changes both in terms of the education system to be developed, the material to be delivered, how the instructional and learning process will be carried out, as well as the obstacles that will be faced by students, teachers, and education providers. The use of media such as e-learning in a learning process is expected to be an alternative to overcoming the problem of independence of learning that is often found, because the use of this media allows teaching a student to search for and learn knowledge more broadly in the internet world so that students' creativity will arise in learning science. Besides, e-learning is also expected by students' cognitive towards learning outcomes that can easily be achieved.

Educational goals are said to be achieved if student learning outcomes experience development and improvement. As for what is meant by learning outcomes is the result of student learning efforts carried out, informal education always followed by measurement and assessment, as well as in the process of teaching and learning activities, by knowing the learning outcomes can be known the position of students who are smart, moderate or slow. However, since the begining of 2020 there was an illness that caused students to be dismissed and demanded that students learn from home, the pandemic was implanted with Corona Virus Desease 19 (Covid-19) where the outbreak forced students to study online, relying on the internet to meet students' education to an undetermined deadline.

Around 25 million school children in Indonesia are now studying under the threat of a Covid-19 pandemic. As carried out by many countries, to prevent transmission of the coronavirus in schools, the Minister of Education and Cultural issued a circular dated March 24, 2020, which regulates the implementation of education during the emergency period of the spread of coronavirus). This "Learning from Home" policy is appropriate to prevent the spread of Coronavirus in the school environment.

In connection with the spread of the Coronavirus, which impact the world of education, especially now, the government encourages students to learn from home (distance) by utilizing electronic media facilities or using of the internet in

following the subject matter presented by each academic unit. As we know that most of the internet media even use English entirely. Then the researcher intends to conduct research related to the impact of e-learning on English learning achievement in class VIII students.

In terms of the relevant research which possible in adding the readers' view on the Influence of E-Learning on student achievement. The writer found out some researchs that relevant with this study. It was done by Rendy Adhitya Putra with the title "*The Influence Of E-Learning Media In English Language Lessons For Students In Class VIII Junior High School*". With the following conclusions the research that has been conducted has produced an e-learning media for English for grade VIII SMP which presents an easy process of exchanging information (learning material) and student assessment. The second is a study conducted by Randy Irawan with the title of the Thesis *"Moodle-Based E-Learning Development In Improving Songs Understanding On English Learning"* with the following conclusions: Based on the results of data analysis and discussion it can be concluded that Moodle-based e-learning products in improving understanding of English learning songs for grade X vocational students are effective in improving learning outcomes, the results of research and development in the form of Moodle-based e-learning products to enhance improve listening skills on learning English for class X vocational students which can be accessed through elearning better english.com. The software used to develop e-learning uses Moodle version 3.1 by adding Poodll and Audio plugins online while the Moodle features used are forums, chat, material, and Quiz and assignments. Learning activities using e-learning can be done face to face and distance away (online). Researchers found similarities in each variable, namely e learning and learning achievement. However, previous researchers obtained results through a mixed method research approach, while researchers currently use quantitative research methods using observation, interviews, tests and questionnaires.

In conjunction with the problem above, the study focus is on E-learning effect on the English learning achievement of students of class VIII MTs. MT. Tirpas, what percentage of internet network usage in accessing English subject matter (E-learning). Then the researcher formulates two research problems are Is

there an effect of E-learning on the English learning achievement of Grade VIII Mts.Mt.Tirpas students? How significant is E-learning influence on the English learning achievement of students of class VIII Mts.Mt.Tirpas?

RESEARCH METHOD

In this research, the researcher used quantitative approach. Quantitative is kind of research which used research design based on statistics procedure or in other way quanty to measure research variable because the researcher want to find the student's achievement in english for the VIII grade in the school year 2019/2020 before and after using e-learning method. This research is a document resesarch because the aims of this reserach is at answering the statement that related to the subject of the research. The data of the study is the result of English examination at the second semester at Mts.Mt.Tirpas in th school year 2019/2020.

Research will be conducted at MTS.MT.TIRPAS on first smester VIII grade in the school year 2019/2020. The reason of choosing the school is the location of the researcher's house is not far and the school using e-learning in teaching and learning process especially by whatsApp. The resesarcher takes this class because the students have studied English in the previous grade and the researcher wants to know the development of students achievement in English before and after this school used E-Learning method.

In collecting the data of this research, The resercher will collect the data through:

1. Observation

   The researcher does the observation technique because the researcher wants to explore the data related to the ongoing E-Learning-based on learning process activities and its results. In the process, the researcher is assisted by subject teachers to facilitate data collection. This technique is to observe directly a situation in the school to be researched.

2. Documentation

   Documentation according to Sugiyono (2015: 329) is a way used to obtain data and information in the form of books, archives, documents, written numbers and pictures in the form of reports and information which can support research. Documentation is used for collect data then analyzed. The result of the second semester was gotten by using some procedures: such as asking permission of the headmaster of MTS.MT.TIRPAS, consult with the English teacher to ask the result for the second semester, asking the student's data, photos of students studying from home using Zoom app, Lesson Plan and syllabus.

The main instrument for collecting the data in this study was a test. In this case, the text used was multiple – choice test, which consist of 20 items.

1. Pre-test

   In this section the researcher took pre-test administer before applying e-learning method especially by Whatsapp and Zoom app at the student's house, it was aimed at knowing the students achievement. The test used multiple choice which is consist of 20 item about Tenses; Past tense, Presesnt tense, Vocabulary and Expression.

2. Post-test

   This test is administer after applying Pre-test. The purpose of this step is to know English Achievement after applying E-Learning and to know the students interesting and enthusiasm especially in english subject.

The data analyzed by descriptive statistics. In this study, the descriptive analysis is used to know the mean and standard deviation of students' scores in using E-Learning method. Descriptive is a a generalization testing of the result of study which consist of one sample (Arikunto, 2010). In the beginning measured the mean score to found a single score that give the indication of the students achievement, the mean score of each student. The test related to student achievement by using E-Learning method. The next steps is found the standars deviation. It needed to calculate the degree to which the group of scores deviate from the mean. To know

the influence of E-Learning method on students' achievement in this condition, the resesarcher used Analysis of Variance (ANOVA) to obtain the final result and compared with tukey's HSD method. As the output, the reasearcher was used the COSTAT app for windows to show the result of the procedure which will indicate whetheher alternative the hypothesis eccepted or rejected. This method can also show a level of signifinances between pre-test and post-test.

DISCUSSION

In this section the researcher duscussed about how and where the data were gained. Firstly, Data collection was carried out twice, namely before and after the application of e-learning. Before was called a pre-test and after was called a post-test. The pre-test was carried out in early October followed by the applied of e-learning. The e-learning using the WhatsApp application, it was applied for two weeks. The results of the e-learning applied are tested using the same multiple choice consists of 20 questions or called the post-test. Furthermore, pre-test and post-test were analyzed.

	Pre-test	Post-test
∑	3080	3450
AVERAGE	71,63	80,23
Highest score	85	95
Lowest score	60	70

Based on the table above it can be seen that the highset score in pre-test was 85 while lowest pre-test was 60. Morever, the average score was 71,63 in pre-test. Then the highest score of post-test was 95 and the lowest score of post-test was 70. Therefore the mean score of post test was 80,23.

	Pre-test	Post-test
N Valid	43	43
Missing	0	0
Mean	71,63	80,23
Median	70	80

Mode	70	80
Std. Deviation	7,62	6,54
Variance	58,00	42,80
Minumum	60	70
Maximum	85	95
Sum	3080	3450

Based on the data on the table above about descriptive statistics it can be seen that N= 43 students. The table above shows that the mean score of pre-test was 71,63 and post-test was 80,23. In addition median was 70 in pre-test and 80 in post-test, while mode of pre-test was 70 and 80 in post-test, beside that standar deviation in pre-test was 7,62 and 6,54 in post-test. Then 58,00 for variance in pre-test and 42,80 for variance in post-test. Morever, the minimum score shown that the lowest score of every students was 60 and 85 for maximum score shown that the highest score of pre-test and minimum score of post-test was 70 while maximum score was 95 on the other hand, the sum of all score of pre-test was 3080 and 3450 in post-test.

To calculate the mean score and standar deviation from pre-test and post test that was given to the sample the researcher used formula as follows:

1. N. Valid

   Was the total number of students or sample of the research, they are all of the students of second grade at MTS.MT.TIRPAS.

2. Missing

   The number of student who did not take the test, in this research all of the students take the test as a sample.

3. Mean

   The average score of students from pre-test and post-test after and before used e-learning method.

   a) Pre-test

      The mean of pre-test score was 71.63

b) Post-test

The mean of post-test score was 80.23

4. Median

The midle score from all of the students, can be count by follows step:

$\frac{n+1}{2}$

$=\frac{43+1}{2}$

$= 22$

Total numbers of students plus one and divided by two, the result of that were twenty two. It's mean that the median score was in the order of the twelfh from the student.

5. Mode

The score that accurs most frequently,the mode in pre-test was 70, and the post-test was 80.

6. Standar deviation

Standard deviation is a statistic that measures the spread of a data set relative to the mean and is calculated as the square root of the variance.

Formulation of standar deviation

$$s = \sqrt{\frac{\sum x x^2 - \left(\sum \frac{x}{n}\right)^2}{n - 1}}$$

Where:

S : Standar deviation

X: difference in scoring of pre-test and post-test

N: total number of the students.

The result of them are calculated by Mc. Excell

7. Maximum

The higest score betweean students from pre-test and post- test. Pre-test was 85, and from post-test was 95.

8. Minimum

   The lowest score betweean students from pre-test and post test, in the pre-test was 60, and from pos-test was 70..

9. Sum

   Total score all of the item in table 4.8, that was 3080 on pre-test and 3450 on post-test. After calculated by excel formulation in Ms. Excell.

Morever, the next table like to shown about percentage of pre-test.

	Frequency	Percent	Valid percent	Cumulative Percent
Valid 60-69	14	32,56	32,56	32,56
70-79	19	44,19	44,19	76,74
80-89	10	23,26	23,26	100
90-100	0	0	0	100
Total	43	100	100	

To know the percentage of each score researcher use the percent math formulation as follow:

$$\% = \frac{\text{Fre. Score}}{\text{Fre. Total}}$$

$$= \frac{14}{43} \times 100 = 32{,}56\%$$

Percent and Valid percent was same. The cumulative percent was all of the previous (Valid Percent) are summed. Based on the table can be seen that every students got different score between 60-69, 70-79, 80-89, and 90-100 , it means that the ability of student's achievement in english was different. Fourteen students got score 60-69 and there were twenty nine students got score more than 69, its shown that the fourteen students achievement in English was low. The table above also

showed frequence and percentage of students achievement in english from 43 students. There was 32,56% students got score 60-69. Then 44,19% students was got score 70-79. In addition, 23,26% students got score 80-89. Meanwhile, 0% stdents got score 90-100%. Then the table 4.4 would like to describe about the percentage of post-test.

	Frequency	Percent	Valid percent	Cumulative Percent
Valid 60-69	0	0	0	0
70-79	16	37,21	37,21	37,21
80-89	22	51,16	51,16	88,37
90-100	5	11,63	11,63	100
Total	43	100	100	

Based on the table showed the percentage of post-test above can be seen that no student got score 60-69. Sixteen students got score 70-79 and twenty two students got score 80-89. Then five students got very high score that 90-100. It's mean that students have increase their achievement in English. Furthmore, the frequency and percentage student achievement in english from 43 students was 0% got score 60-69 and 100% students got score more than 69. It's mean that student's achievement in english increase from 67,44% to be 100%.

The pre-test and post-test analyzes were carried out to determine validation of the number of students who took the test, standard deviation, maximum score, minimum score, average, mode, variance and the total number of student scores. In the pre-test, the number of students tested was 43 students with standard deviations 7,62, maximum scores 85, minimum scores 60, average 71,63, median 70, mode 70, variance 58,00, and the total number of student scores 3080. Where in the post-test, the number of students tested was also 43 students with standard deviation 6,54, maximum score 95, minimum score 70, average 80,23, median 80, mode 80, variance 42,80, and the total number of student scores was 3450. As the result it was clear that the students post-test score was better than pre-test.

Determination of the number of students was tested to obtain the same number of students between the pre-test and post-test. This is intended so that there is no difference in the amount of data between the pre test and post test. Meanwhile, Standard deviation was determined to know how much data deviation obtained and data variance was determined to know how level of data distribution.

MODEL	DF	SUM OF SQUARE	MEDIAN OF SQUARE	F	F table	P VALUE	SIG
E-LEARNING METHOD	1	1591,86	1591,86	31,58	3.95	.000	S
ERROR	84	4233,72	50,40				
TOTAL	85	5825,58					

Based on the table shows F > F table so, Ho was rejected. It's mean that e-learning method was significant influenced on students' achievement in English. Hypothesis testing method was used to determine the level of significance of the development of students' English skills. Hypothesis test was carried out with ANOVA using the COSTAT application for MC. WINDOWS. If there is significance, then a further test was carried out using the Tukey's HSD method. Further tests were conducted to determine the level of significance of the development of students' achivement in english based on the results of the pre-test and post-test. The results obtained from hypothesis testing are F> F table which shown that Ho was rejected, it's means that the application of e learning have an effect on students' achievement in English. Then the results of Tukey's HSD continued test showed an increase in the average score of the pre-test and post-test. The average score in pre-test of students was 71.63 while the average of the post-test was 80.23. The increase of average score indicates student's achievement in english was increased.

Rank	Model	Mean	N	Non-sig. Range
1	Post-Test (after)	80,23	43	A
2	Pre-test (before)	71,63	43	B

After analyzing the data by using ANOVA at the level of significance (a) 5% the researcher found Tukey's HSD (Tukey's Honestly Significant Different Test) was 3,04. If the difference of pre-test and post-test more than 3,04 it's mean that the pre-test and post-test were significantly different. The above table shown that the average level of the students after applied e-learning method was higher than the previous that 80,23. This shown the application of e-learning method can provide a real impact on increased students' achievement in English.

CONCLUSION

From the result of the research conducted in previous chapter, the researcher draws the following conclusion. Based on the result of data analysis, the mean score of pre-test was 71,63, and mean score of post-test was 80,23. The result of hypothesis testing were F> F table, where F value was 31.58 and F table was 3.95. which shown H0 was rejected. It's mean that application of e-learning was influenced on students' achievement in English at MTS.MT.TIRPAS in the school year 2019/2020.

According to the findings, there were few suggestion as a reference for english teachers and for subsequent research in the same field. For english teacher is important to note that teacher's ability to presesnt the e-learning method for increase the student achievement in English especially in this condition the students must be learn from home (BDR) caused by coronavirus.

The teacher should be well prepared and well organized so that the lesson flows smoothly and predictably. It is advisable to write down the sayng of the right teacher will use. Mainly because of the actions command simply take some to make the word spontancously. In addition because the current state of the internet was one of the media needed by students to always be able to attend lessons, the teacher must

provide directions to students on how to use online media, especially WhatsApp properly and correctly. In this research, the researcher used 43 students from eighth grade, for the further researcher can it might be possible with a larger samples and higher education levels in order word at the senior high school. For instrument of collectiong the data the researcher used 2 instrument namely, Pre-test and Post-test, for further research can used more instruments. Furtheremore, can be used the other variable for dependent or independent variable.

REFERENCES

Anggara, Bayu. (2014). *Konsep E-Learning dan Online Learning*. Acces at 19 juni 2020 https://anggaradian.wordpress.com/2014/12/05/konsep-e-learning-dan-online-learning/

Anggrayni, Yenni. (2010). *Effect Of Adoption Of E-Learning Model On Student Learning Outcomes Lesson In Economic At Senior High School Plus 17 Palembang*. Acces at 19 juli 2020. From

http://repositori.kemdikbud.go.id/286/1/YENNI%20ANGGRAYNI%2C%20S.Pd_Perbaikan%20untuk%20simposium%202010.pdf

Anonim. (2018). *Characteristics of E-Learning*. Vapulus. Acces at 18 juni 2020 from https//www.vapulus.com/en/characteristics-of-e-learning/

.....(2020). *10 Dampak Negatif Internet di Kalangan Pelajar*. Acces at 19 juni 2020 from https://dosenit.com/jaringan-komputer/internet/dampak-negatif-internet-di-kalanganpelajar#:~:text=Dampak%20negatif%20internet%20di%20kalangan%20pelajar%20yang%20kedua%20adalah%20mudahnya,pikir%20dan%20perilaku%20para%20pelajar.

.....(2020). *Academic Achievement*. Wikipedia.acces at 20 juli https://en.wikipedia.org/wiki/Academic_achievement#Factors_influencing_academic_achievement

Arikunto, suharsimi. (2009). *Dasar-Dasar Evaluasi Pendidikan*/Ed. Revisi, Cet. 10.—Jakarta: Bumi Aksara

Hauriah, (2009). *Comparative study of english achievement between language and natural science classes for the second year students of SMA.NW.PANCOR. in the school year 2008/2009*. Pancor Lombok Timur

Hornby. (1995). Oxford: *Advanced Learners Dictionary fifth Edition. London: Oxford university press*

Huda, Nuril. (1999).*language learning and teaching*: Issues and Trends. Malang:IKIP Malang

Khadijah, Nurul. (2015). Dampak *Positif Internet Terhadap Pelajar*. Acces at 20 juni2020. https://www.kompasiana.com/nucha.com/55287b70f17e613f558b456f/opini-dampak-positif-internet-terhadap-pelajar

Kusmana, Ade. 2011. E-Learning Dalam Pembelajaran. *Lentera Pendidikan*. 14 (1)

Muchtar, E.H., dkk (2016). E-Learning Materi Turunan Untuk Siswa Kelas Xi Sma/Ma, *Jurnal Informatika*, Volume 5, No.1, Juni 2016. Acces at 1 agustus 2020 file:///C:/Users/acer/Downloads/6-10-1-PB.pdf

Muliyani, Wiwi. (2013). *Pengaruh pembelajaran berbasis e-learning terhadap hasil belajar siswa pada konsep implus dan momentum*. Acces at 20 juni 2020.http://repository.uinjktac.id/dspace/bitstream/123456789/26232/3/WIWI%20MULYANI-FITK.pdf.

Nurdana. (2005). *Student's English Achievement*: a comprative study on smpn 3 and 4 kopang for the school year 2003/2004. S-1 Thesis.

Putra, Rendy, Adhitya. (2017). *Media Pembelajaran E-Learning Pada Mata Pelajaran Bahasa Inggris Untuk Siswa Smp Kelas VIII* Acces At 20 JUNI 2020 http://eprints.ums.ac.id/57019/3/NASKAH%20PUBLIKASI.pdf

Sudiran. (2017). Analisis Fungsi Internet Sebagai Media Pembelajaran Bahasa Inggris. The Second Progressive and Fun Education Seminar

Sugiyono. (2016). *Metode Penelitian Pendidikan*. Bandung. Alfabeta

Suyanto, Asep, Herman. (2005). Mengenal E-Learning.

www.asep-hs.web.ugm.ac.id. Acces at 20 Juli oktober 2020

Tossy, Titus. (2017). Measuring The Impacts Of E-Learning On Students' Achievement In Learning Process: An Experience From Tanzanian Public Universities. *The Online Journal of Distance Education and e-Learning*.Acces at 20 juni 2020

https://www.tojdel.net/journals/tojdel/articles/v05i02/v05i02-08.pdf

Wartama, I., G., N., P., M. Jampel, I., N. And Suartama, I.,(2015). Pengembangan e-Learning Berbasis Moodle Pada Mata Pelajaran IPA Siswa Kelas VIII Semester Genap Tahun Pelajaran 2014/2015 Di SMP Laboratorium Undiksha. *Jurnal Pendidikan*