

The Effect of Using e-Learning on Students Learning Achievement in English Grammar at Nutrition Department

Desy^a, Amalina Rizma^b and Depi Yunaspi

Program Studi Sarjana Gizi, Institute Kesehatan Mitra Bunda, Batam, Kepulauan Riau, Indonesia

Keywords: e-Learning, Education, Student, English, Grammar.

Abstract: This study purpose is to resolve the effect of E-learning use on student achievement and determine students' reactions or attitudes towards using E-learning to English grammar at Institut Kesehatan Mitra Bunda. Research subjects are all students of the Department of Nutrition, and the total is 55 people. The method used in this study was a semi-trial, pre-trial and post-trial control group design. This means that there are two groups in this study, one doing the experiment and the other following the instructions; both groups received pre-test and post-test. After all, the analysis was one and only given in the experimental group. In addition, the research used two types of instruments. It's a quiz and a question. The results show the divergence among the post-test of students in the experimental and control groups in English grammar. It can see from the t test. The result of the t-test is obtained in sig. $0.01 < 0.05$. This means that there is a significant difference among the two groups. Meanwhile, analysis of student feedback data shows that online learning is positive when the student response rate is 80%. The survey results show that most students are interested, interested and agree to use e-learning in learning grammar. Based on research results and discussion, the author recommends that there is an impact on learning outcomes and improving students' ability in English Grammar course after using online learning.

1 INTRODUCTION

Learning English is authentic necessary. Various people around the world have get along with learning English. After all, learning English cannot avoid teaching words, glossary, diction and grammar. In particular, learning grammar is authentic necessary. No grammar, not easy to make text also meaning. Grammar is an element of language necessary for language acquisition. It helps students express their views and feelings.

Grammar has been an important part of language teaching. It has both an organizing principle and a major component in many methods and a minor or insignificant component in other respects. Important issues in teaching grammar have to do with whether grammar should be taught explicitly or implicitly or whether it should be taught deductively or inductively.

Grammar is the guideline of speech for developing the pattern of a word and joining them into a sentence. Moreover, grammar is partly the

study of possible formats (or structures) in a language. Therefore, grammar is the definition of the established ways that govern the formation of a linguistic sentence. Grammar tries to explain why sentences are acceptable. So, grammar is essential, as are rules and form (or structure) (Scoot Thornbury, 1999).

A lot of learner are not interested in learning grammar. They grant a negative response. They dial complex problems when learning grammar. learner who do not understand grammar will have adversity in speaking and writing. In other words, the lack of grammar prevents students from constructing and combining sentences correctly. Most of the students of the nutrition department said that learning grammar faces a lot of difficulties, especially for students who have just started learning basic English grammar, so their learning results are not good. difficulty speaking and writing.

Lack of learning resources and pedagogical limitations are believed to be the causes of students' lack of interest, lack of initiative and passivity, and

^a^{ID} <https://orcid.org/0000-0002-0909-8070>

^b^{ID} <https://orcid.org/0000-0003-3845-4457>

affect students' learning outcomes. As a major component of student training, necessary to achieve good academic results. Therefore, educators need to treasure alternative solutions to engage learners more. Online learning is an other side.

E-learning is becoming a medium that is developed by many people, especially in the field of education. The developers who made e-learning often come from organizations, groups, and individuals. Online learning is a brand-new of teaching and learning (Deni Darmawan, 2014).

Since this information age, online learning has gained popularity. Then, it is essential to know about E-learning. E-learning uses the Internet and digital technologies to create experienced people (William K. Harton, 2001).

The system who manage e-learning known as learning management system (LMS). Learning management system has to exist in using e-learning. There are many learning management system (LMS) that is incredible to manage e-learning Moodle as learning management system is part of them. Moodle is a free open source learning management system that enables to create powerful, flexible, and engaging online learning experiences (William Rice, 2015).

E-learning in the process of teaching and learning cannot be disassociated from specific contents but integrated. E-learning as a medium is a growing form of innovation that has significantly contributed to the evolution of the learning process. In addition, e-learning refers to the use or exploitation of the online network and web-based technologies to made learning experiences.

Online learning has many benefits, such as facilitating student-teacher interaction, learning resources, and transitioning from passive to active students. Students can access the material at will. Although the downside of online learning is the lack of communication between learner and teachers, there is a lack of unity among learner and learner who lacks motivation to learn can fail. Using E-learning, the researcher wants to know even if e-learning has an impact on student learning outcomes. Student outcomes are key, so getting the right research results is essential. To achieve good results, students need to be active in learning. However, if the student is passive, the student's academic performance will be poor. In other words, regarding the students. Online learning is one of the alternatives.

Entrenched the above context, the researcher's interest in conducting research for knowledge and careful review in quantitative research titled, "Effect of using online learning on student achievement in

English grammar Department of Nutrition Institut Kesehatan Mitra Bunda.

2 SUBJECTS AND METHODS

The objective of this study was the effect of using e-learning on English learning outcomes of students of the Nutrition Department at Institut Kesehatan Mitra Bunda. This study used a semi-experimental design (pre-trial-post-trial control group). Data were obtained from pre-test, processing, post-test also student responses. The questionnaire for study used yes/no questions. The population of this study included students from the Department of Nutrition of the Kesehatan Mitra Bunda Institute. Samples were collected using the whole sampling technique. All members of the group of 55 students who met the inclusion and exclusion criteria were included in the study. The inclusion criteria criteria of this sampling technique was sample had a Laptop or Notebook. And had to understand about IT. Therefore all students who fulfilled the criteria was sample of this research were recorded as students of the Nutrition Department at Institut Kesehatan Mitra Bunda . The researcher will usage the methods of descriptive and analyze collecte data by tests and questionnaires. Data will be extracted from the test and then quantitatively analyzed using SPSS, descriptive and inferential statistical analysis.

2.1 Measures

The pre-test and post-test process data were collected from the trial and then quantitatively analyzed as follows:

Descriptive learning scores by descriptive statistical analysis. It describes the trend of each variable. This is illustrated by the program SPSS. The mean and standard deviation use the scale to classify students' scores. The t-test used Inferential statistical analysis to test the hypothesis using.

3 RESULTS

Research results are based on the use of e-learning results and data analysis. Data analytics is used to compile data. The grammar test consists of a pre-test and a post-test. The students' grammar skills were checked before using the e-learning materials, and a follow-up test was performed to determine the

increase in the students' grammar skill after the treatment.

3.1 Classify Learner Scores Before and after The Test in Control and Experimental Classes

The following table shows the frequency distribution and final score percentages of the Institut Kesehatan Mitra Bunda grammar test of the Faculty of Nutrition in the pre-test and post-test in the control and experimental classes.

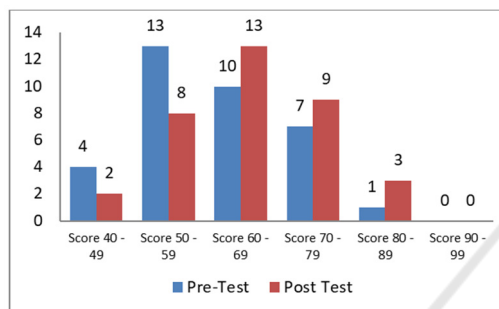


Figure 1: The pre-test and post-test in the control classes.

The table above shows the control group's scores on the student's previous test. No student scored 90-100 on the previous test. Grades 80-89 had only one student (0.35%). Grades from 70 to 79 have seven students (2.45%). Value 60-69 has ten students (3.5%). Meanwhile, the score range is 50-59 for 13 students (4.55) and 40-49 for four students (1.4%). In addition, based on the above table, it also shows the percentage score of the control group after the post-test. None of the students scored as high as 90-100. Students who scored 80-89 had three children (1.05%), and students who scored 70-79 had nine children (3.15%). For students scoring 60-69, there are 13 students (4.55%). Grades 50 to 59 have eight students (2.8), and grades 40 to 49 have two students (0.7%).

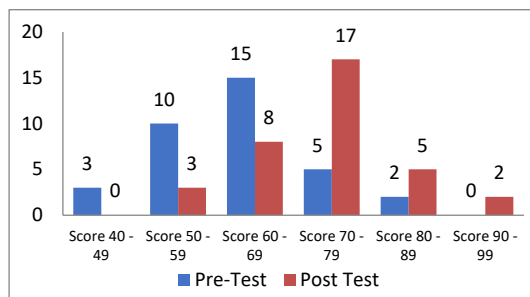


Figure 2. the pre-test and post-test in the experimental

In this second table, we see that the percentage of experimental class that got the pre-test score, the number of students who scored from 90 to 100 is not there. Group 80-89 has 2 students (0.7%), group 70-79 has 5 students (1.75%), group 60-69 has 15 students (5.25%), category 50 -59 has 10 students (3.5%), the last category has a score of 40-49 has 3 students (1.05%).

The table above also shows the post-test score percentage. In the 90-100 value category there are 2 students (0.7%). From 80-89, there are 5 students (1.75%). From 70-79 there are 17 students (5.95%). From 60-69, there are 8 students (2.8%). In the age group of 50-59, there were 3 students (1.05%) and the last group of 40-49 years old, there were no students with this score. Stand on the data above, it can be assured that speed percentage in the post-test group is higher than in the control group.

Table 1: Distribution Data Controlled Class and Exsperiment Class.

Statistik	Pretest		Posttest	
	Contro l	Experime nt	Contro l	Experime nt
N	35	35	35	35
Mean	60.571	62.057	66.800	73.600
Std. Deviation	10.4552	10.5995	10.2922	9.9031
Minimum Score	44.0	40.0	48.0	52.0
Maximum Score	84.0	88.0	88.0	96.0

The table above shows that the mean score of the control class in the previous test was (60.57). The standard deviation of the control class is (10.4552). The maximum and minimum values are (84 and 44). The average score of the experimental class before the test is (62.05). The standard deviation is (10.59). The maximum and minimum scores are (88 and 40) although the mean score of the control class after testing is (66.80). The standard deviation of the control class is (10.29) along with the maximum and minimum scores are (88 and 48). In experimental class, the mean score of in post-test is (73.60) and The standard deviation is (9.90) also the maximum and minimum values are (96 and 52). It is definite from two tests; The experimental class had a higher score after the test than the control class.

Table: 2 Table Normality.

Class	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	d.f.	Sig.	Statistic	d.f.	Sig.
Control Pretest	.155	35	.033	.943	35	.068
Control Post Test	.139	35	.086	.955	35	.156
Exsperime nt Pretest	.113	35	.200*	.973	35	.528
Exsperime nt Posttest	.204	35	.001	.958	35	.206

Normality test was performed to determine whether the data from the two groups of samples was normal distribution or not normal distribution. The data were normally distributed is if the sig. <0.05, were not normally distributed if the sig. > 0.05 mean the data were normally distributed.

Based on the tests of normality is found that the significance of Kolmogorov-Smirnov has .033, .086, .200 and .001. And Shapiro-Wilk has .068, .156, .528 and .206 significance. From the above analysis, it can be sure that the data normal distribution.

Table 3: Homogeneity Test and T-test.

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	
Control Pre Test	Equal variances assumed	.249	.621	.091	33	.929	.3209	3.6004	-6.9962	7.6541	
	Equal variances not assumed			.092	32.793	.927	.3209	3.59966	-6.9352	7.5931	
Control Post Test	Equal variances assumed	2.613	.115	.039	33	.969	1.382	3.5447	-7.0726	7.3489	
	Equal variances not assumed			.040	32.109	.968	1.382	3.4442	-6.6756	7.1519	
Experiment Pre Test	Equal variances assumed	.106	.747	-.408	33	.686	-1.4868	3.6414	-8.8954	5.9217	
	Equal variances not assumed			-.411	32.646	.684	-1.4868	3.6190	-8.8508	5.8772	
Experiment Post Test	Equal variances assumed	.789	.381	-.325	33	.748	-1.1053	3.4053	-8.0334	5.8229	
	Equal variances not assumed			-.330	32.980	.743	-1.1053	3.3481	-7.9171	5.7066	

Based on the table result test. Levene's test for equality of variance was found to have 0.621, 0.115, 0.747 and 0.381. From the above analyses, it can be concluded that the data have the similar variance due to sig. >0.05.

The hypothesis test is a test to find out how different students' learning outcomes when using online learning methods in the experimental group. Hypothesis testing by comparing the post-test results is one of the necessity to determine whether there is an impact on increasing student learning outcomes

when using online learning at the Faculty of Nutrition or not.

4 CONCLUSIONS

Based on the study results, the researchers concluded that: Grammar teaching using e-learning in the Nutrition Department of the Institut Kesehatan Mitra Bunda is making an impact. This is evident from the test results. The mean post-test score of the experimental group was (73,60), while the mean post-test score of the control group was (66,80) plus the post-test standard deviation of the control group (10,29) and experimental group (9,90) .

ACKNOWLEDGEMENTS

Our gratitude is sent to all student in Institut Kesehatan Mitra Bunda who help in this study. If any, should be placed before the references section without numbering.

REFERENCES

- Alshield. 2013. The Use of Computer Technology in EFL Classroom advantages and implication. International Journal of English Language and Translation Studies.
- Arora, A. "Using E-Learning Technologies to Improve Educational QualityOf Language Teaching" Learning Industry.com <https://elearningindustry.com/mstile-144x144.png>. (Retrieved May, 27 2023)
- Deni Darmawan, 2014. Pengembangan E-Learning (Bandung: PT Remaja Rosdakarya, 2014)
- Rice, W. Moodle e-Learning Course Development: Birmingham UK: Packt Publishing Ltd. 2015.
- Teaching and Learning English Grammar: Research Findings and Future Directions. (2015). United Kingdom: Taylor & Francis.[Google Book]
- Thornbury.S. 1999. How to Teach Grammar: England: Pearson Education Limited,
- William Horton. 2001. Leading E-Learning. American Society for Training and Development. USA [Google Book]