THE EFFECT OF ENGLISH GRAMMAR TEST APPLICATION ON STUDENTS' GRAMMAR MASTERY OF SIMPLE PAST TENSE AT THE EIGHTH GRADE OF JUNIOR HIGH SCHOOL

Dinda Dwi Tifani
RA Ar-Raudhah Perkebunan Tanjung Kasau, Batubara, North Sumatera
e-mail: dinda.dwi@uinsu.ac.id

Abstract

The objective of this study is to find out whether there is a significant effect of English Grammar Test (EGT) application on students' grammar mastery of simple past tense at the eighth grade of Junior High School. Quantitative research method with quasi-experimental design was used in this research. It was conducted at the eighth grade of MTs. Islamiyah Perkebunan Tanjung Kasau. The population consisted of 60 students from two classes. Using saturation sampling method, the two classes namely VIII-A and VIII-B were selected as the sample of this study with each class consisted of 30 students. Furthermore, VIII-A class was selected as control class and VIII-B class as experimental. In collecting the data, multiple choice and "fill in the blank" test forms were used in this study. The tests were then distributed in two ways; 1. Pre-test was distributed before the treatment: 2. Posttest was distributed after the treatment. Furthermore, the data was analyzed by using statistical formulation and Microsoft Excel 2013 with 0,05 significance level. After the data was analyzed, it can be found that the value of tobserved was higher than ttable. It can be seen from tobserved (3,839) > ttable (2,001) at the degree of freedom (df) = 58. It means that the alternative hypothesis (Ha) was accepted and null hypothesis (H0) was rejected. Therefore, it can be concluded that English Grammar Test application gives significant effect on students' grammar mastery of simple past tense at the eighth grade of MTs. Islamiyah Perkebunan Tanjung Kasau.

Keywords	: Technology Integration; MALL; English Grammar Test Application; Grammar Mastery; Junior High School.

Introduction

English is one of important languages that should be mastered, because in this globalization era, it is used by people all around the world as a way to create communication. According to Fithriani, globalization era has made English as the most widely spoken language for several aspects such as trade, education, business and tourism (Fithriani, 2018). In Indonesia, English is set as a foreign language which the way to master it is by putting English as one of

subject in education system. In learning English, there are some elements that learners have to master. Badger said that there are five elements in learning English namely pronunciation, spelling, grammar, vocabulary and discourse (Badger, 2018). One of elements that learners have to master in order to can support their process in mastering English as foreign language is grammar. One of significant terms in learning grammar is verb, as Bindra said that it's difficult to talk about English grammar without the terms, such as noun, verb, subject, object and etc. (Brinda, 2016, p. 21).

According to Kementerian Pendidikan dan Kebudayaan, the students have to achieve some indicators in learning tenses that have been determined in basic and core competencies related to existing curriculum. In eight grade level, the students have to have to comprehend the language features, text structures and also the conjugation of verb in simple past tense. But in reality, the students face some difficulties in learning tenses, especially in simple past tense. The factors that cause the difficulties in learning tenses are lack of practice and the limited time to learn in class. As Banu and Nishanthi mentioned that the difficulties in learning caused by the students who have limited time to learn in class and they still don't have enough encouragement to practice (Banu & Nishanthi, 2017).

In this era, technology has been integrated with education where one of innovation that arises is the use of technology as a media in language learning process (Ahmadi, 2018). Practically, using technology can be a solution to solve the problem about limited time and lack of practice in class. The use of technology in the class can stimulate the students' initiatives and economize class time (Pazilah et al., 2019). The one of technology integration in teaching language is by using mobile device as a development on Mobile-Assisted Language Learning (MALL). MALL is an approach in language learning and teaching by using mobile devices (Fithriani et al., 2019). MALL can also be used as a media in learning to improve student comprehension in grammar, especially in simple past tense.

For instance, Gamlo found that there are the benefits of using mobile application in learning English as a foreign language. He said that after using Learn English Grammar Application, the students can complete the questionnaire and revealed a positive attitude in learning grammar. In another research, Inayati and Damayanti mentioned that Johnny Grammar Word Challenge Application is suitable to be implemented in class as a way to improve students' grammar ability especially in learning simple past tense. Related to this studies, Mughti in her research found that English Grammar Test Application can effective as a media to teach tenses especially Simple Past Tense on first grade of Senior High School (Gamlo, 2019; Inayati & Damayanti, 2016; Mughti, 2019).

With the successful of the previous studies in using MALL as media in learning and teaching language especially English, this research also would like to use one of mobile device or application to learn grammar namely English Grammar Test. This research aims to know the significant effect of using English Grammar Test application on students' grammar skill in simple past tense. This research is expected can provide information and knowledge for the readers about the effect of English Grammar Test application on students' grammar skill in learning simple past tense.

Literature Review

1. Technology Integration in Language Learning

The integration of technology in education made the technology become an important part in teaching and learning activities. Davies defined the integration of technology as the effective implementation of educational technology to accomplish intended learning outcomes (Davies, 2013, p. 6). The use of technology in education is rapidly expanding and now seen worldwide as both necessity and opportunity in many country (Haswani, 2014).

Using technology in education can be defined as a proof of the technology development that can be integrated with the teaching and learning activity. In another words, it is an effort hoped

able to solve the problem in teaching and learning by using innovative medium. One kind of teaching activity which integrated with the development of technology is language teaching and learning.

The American Council on the Teaching of Foreign Language noted that technology has been used to both assist and enhance language learning (Parvin & Salam, 2015). There are so many research about integration of technology in education which indicate that the use of technology in teaching and learning activity can give great benefits and good effect. As Larsen-Freeman and Anderson cited in Ahmadi stated that technology provides teaching resources and brings learning experiences for students (Ahmadi, 2018). While Ammade and friends argued that the use of technology can create new challenge and take the better step for better language teaching and learning activities (Ammade et al., 2018). In language teaching and learning, the use of technology defined as an effort to improve the level of education become the better one, because there are lot of benefits provided by using technology as an integrated medium in teaching and learning especially in language teaching and learning.

Based on all the theories above, it can be conclude that integration of technology is the use of technology as innovative medium in teaching and learning activity. Technology is hoped able to solve the problem in education especially in language learning, because using technology can improve the language teaching achievement and it is also can give the students some experiences in language learning itself.

2. Mobile Assisted Language Learning

Mobile Assisted Language Learning (MALL) is the example of technology development in education especially language learning. Fithriani defined MALL as an approach to enhance language learning by using mobile device (Fithriani, 2019). Similarly with Kulkuskha-Hulme who defined MALL as the use of mobile technologies in language learnin (Kwangsawad, 2019). It can be conclude that Mobile Assisted Language Learning (MALL) is the use of mobile devices as the technology development in this era as medium in language teaching and learning. The use of mobile device definitely have some benefits in order to support the language learning process. The use of mobile device in language learning is one way to improve the process in learning English as foreign language. MALL can be defined as an example of integrating technology in learning especially in language learning. MALL is the evidence of the development of technology in this era that can be integrated with education process. In using mobile device, there are some features that can be used by the users.

3. English Grammar Test Application

English Grammar Test is an easy and innovative mobile device of application in learning English especially in grammar. This application was developed by Truat'ss and released on November 18th, 2017. This application has been downloaded by one million users and received 11 thousand reviews in Google Play Store. Most of them give positive reviews in using this application. English Grammar Test application aims give a medium to learn English grammar easily for the learners or users. This application consist of so many questions related to grammar, such as tenses, passive voice, preposition, adverb and adjective, article and so on. Grammar test app provided two learning level namely beginner and advanced. There is explanation in each question to give an understanding about the answer. The unique one from this application is the users can check the score of their work in the last process. The score will be given in number and also star icon. Beside, this application has easy procedure, so the student can operate it easily and funny. The students can learn by using this app when they want to practice in class and at their home.

Methods

Quantitative research method with quasi-experimental research design by using pre-test and post-test was used in this research was used in this research. The population consisted of 60 students from two classes. The two classes namely VIIIA and VIII-B were selected as the sample of this study with each class consisted of 30 students by using saturation sampling method. Furthermore, VIII-A class was selected as control class and VIII-B class as experimental. In collecting the data, multiple choice and "fill in the blank" test forms were used in this study. The tests were then distributed in two ways; 1. Pre-test was distributed before the treatment: 2. Post-test was distributed after the treatment. The experimental class obtained the treatment by using English Grammar Test application, meanwhile the control class obtained the treatment without using application. There are some techniques of data analysis such as normality test, homogeneity test, t-test and hypothesis test.

Results and Discussion

In this research, the quantitative data were obtained by using quasi experimental design. The data were obtained from the pre-test and post-test scores of 30 students in the control class and 30 students in the experimental class. These data were then analyzed to find out the significant effect of using English Grammar Test application on students' grammar mastery in simple past tense. There were two classes as sample of research, namely VIII-A as control class and VIII-B as experimental class. The data of this research were obtained by giving pre-test on July 15th, 2020 and post-test on August 6th, 2020. All of the research findings are presented in a diagram of result from pre-test, post-test and gained score below.

The Pre-Test Score

Before giving a treatment in the class, pre-test was distributed to the control and experimental class to find out how far the students' understanding about the learning topic. After distributing the pre-test, the scores of students as the result of pre-test were obtained. The figure below shows the scores of pre-test in control and experimental class. Both of classes consists of 30 students and the score can be seen as follows:
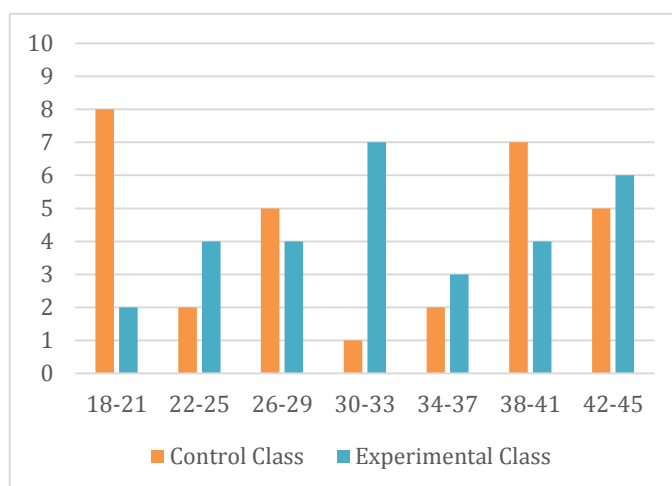

Figure 1: Score of Pre-Test

According to the data above, it can be seen that between control and experimental class have similar score, it means that they have same level of understanding about the learning topic before the treatment. The similarity of these two classes is they are categorized have low score because they only have score around 18 to 45.

The Post-Test Score

After giving a treatment in the classroom, the post-test was distributed to the control and experimental class to measure the students' understanding about learning topic that has been taught in the classroom. After distributing the post-test, the scores of students were obtained as the result of post-test. The figure below shows the scores of post-test in control and experimental class and the result of score can be seen as follows:
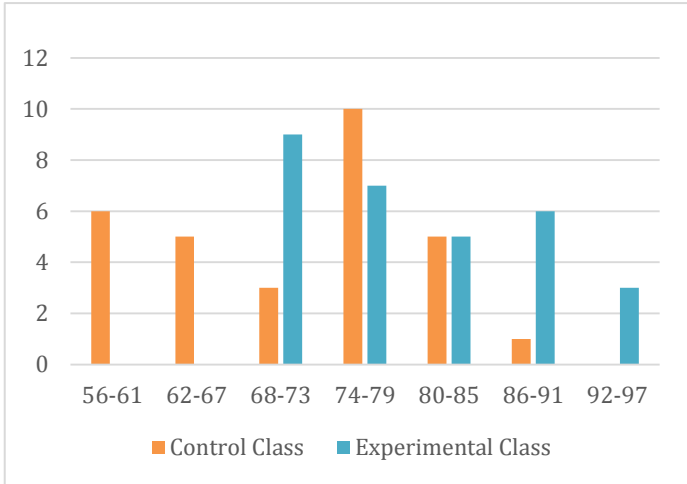

Figure 2: Score of Post-Test

According to the data above, it can be seen between control and experimental class have significant differences score which shown by the highest score around 92-97 is only obtained by the students in experimental class who learn by using application. In addition, the lowest score in experimental class is higher than the lowest score in control class. Therefore, it can be concluded that there is significant effect of using application or mobile device in learning.

Gained Score

Gained score aims to know the effectiveness of using a method or treatment in research. Thus, the objective of gained score related to the objective of this research such as find out the effect of using English Grammar Test application as medium in learning. Therefore, gained score obtain the data by using the decrease of number between post-test and pre-test. The figure below shows the gained score of post-test and pre-test in control and experimental class.
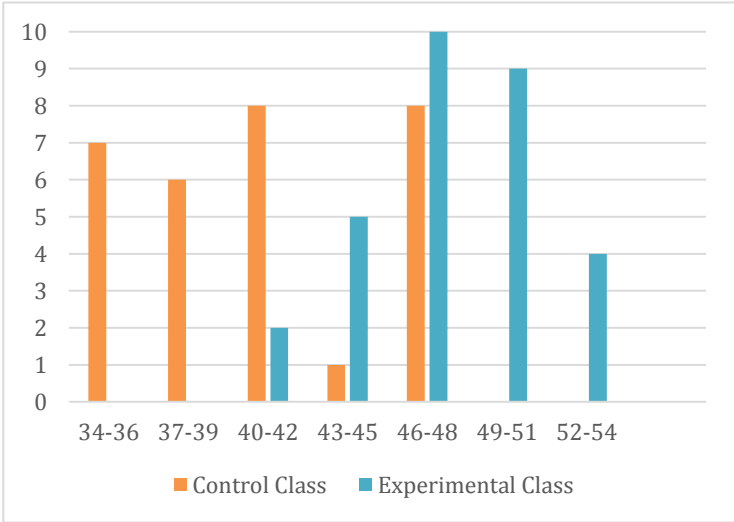

Figure 3: The Students' Gained Score Table

According to the data above, it can be seen that there is an improvement of score in experimental class. The improvement of score is shown by the improvement of score after the

13

students in experimental class obtained the treatment to learn by using application in the classroom. The students in the experimental class obtained the score higher than the control class. It can be concluded that there is a significant effect of using application as media in learning.

After gather the data of gained score, all of the result about the improvement of score is drawn by using chart. The improvement score consists of the score of pre-test, post-test and gained score. The chart can be seen below:
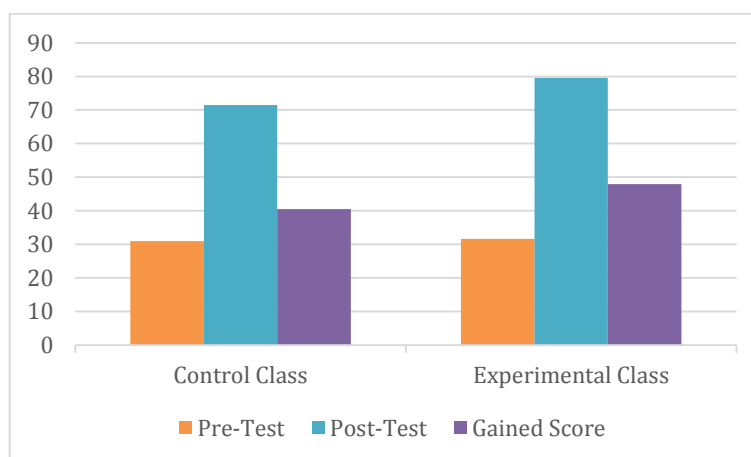

Figure 4: Mean Score of Pre-Test, Post-Test and Gained Score in Control and Experimental Class

According to the figure above, it can be seen that there is an improvement in control and experimental class. It is shown form the difference mean score of pre-test, post-test and gained score in control and experimental class. The mean score of pre-test in control class is 30,93 while in experimental class is 31,67. The mean score of post-test in control class is 71,47 while in experimental class is 79,60. Therefore, the gained score of control class is lower (40,53) than the experimental class (47,93).

Normality Test

In this research, normality test used statistical form of Liliefors test and Microsoft Excel 2013 to calculate the score. The result of normality test can be read in the table below:

Table 1
Normality Test of Pre-Test

	Lilliefors Test ($\alpha= 0,05$)		Result
	Lo	Lt	
Control Class	0,156	0,161	**Normal**
Experimental Class	0,116	0,161	**Normal**

According to the table above, it can be seen that in control class, the Liliefors observation (Lo) shows the result around 0,156 meanwhile Liliefors observation (Lo) in experimental class is 0,116. With the total number of data (n) around 30 samples of pre-test in each class and at the level of α in 0,05, it was found that the result of Liliefors table (Lt) is 0,161 (See in appendix 7). It means that coefficient of Liliefors observation in control and experimental class are smaller

14

than Liliefors table (Lo < Lt). Therefore, it can be concluded that the data of pre-test in control and experimental class are normal.

Table 4.2
Normality Test of Post-Test

	Lilliefors Test (α= 0,05)		Result
	Lo	Lt	
Control Class	0,138	0,161	**Normal**
Experimental Class	0,140	0,161	**Normal**

According to the table above, the result of control class shows the Liliefors observation (Lo) is 0,138 meanwhile experimental class shows the result in 0,140. With the total number of data (n) around 30 samples of post-test in each class and at the level of α in 0,05, it was found that the result of critical value of Liliefors table (Lt) is 0,161 (See in appendix 7). It means that the coefficient of Liliefors observation in control and experimental class are smaller than Liliefors table (Lo < Lt). Therefore, it can be concluded that the data of post-test in control and experimental class are normal.

Homogeneity Test
In this research, the test used statistical formulation to check the homogeneity of data in pre-test and post-test. The result of homogeneity test in pre-test can be seen as follows:

$$F = \frac{The\ Biggest\ Variant}{The\ Smallest\ Variant}$$

$$F = \frac{79,92644}{56,57471} = 1,412$$

According to the calculation of statistical above, it can be seen that coefficient of Fcount (Fo) is 1,412. At the level of α in 0,05 and degree of freedom between the data of these two classes, it was found that the critical value of Ftabel (Ft) is 1,850 (See in Appendix 7). It means that coefficient of Fcount is smaller than Ftable (Fo = 1,412 < Ft = 1,850). It can be concluded that the variant data of pre-test in control and experimental class are homogenous.

Meanwhile, the result of homogeneity test in post-test can be seen as follows:
$$F = \frac{The\ Biggest\ Variant}{The\ Smallest\ Variant}$$

$$F = \frac{71,15402}{64,38620} = 1,105$$

According to the calculation of statistical above, it can be seen that coefficient of Fcount (Fo) is 1,105. At the level of α in 0,05 and degree of freedom between the data of these two classes, it was found that the critical value of F tabel (Ft) is 1,850 (See in Appendix 7). It means that coefficient of Fcount is smaller than Ftable (Fo = 1,105 < Ft = 1,850). It can be concluded that the variant data of post-test in control and experimental class are homogenous.

T-test

In this research, t-test is calculated by using statistical formulation. T-test is used to know the significant effect of using English Grammar Test Application as media in learning. The statistical formulation and the result of t-test can be seen as below:

$$t = \frac{X_1 - X_2}{\sqrt{\dfrac{S_1^{\,2}}{n1} + \dfrac{S_2^{\,2}}{n2}}}$$

$$t = \frac{79,60 - 71,46}{\sqrt{\dfrac{64,38}{30} + \dfrac{71,17}{30}}}$$

$$t = \frac{8,14}{\sqrt{\dfrac{135,53}{30}}}$$

$$t = \frac{8,14}{\sqrt{4,52}}$$

$$t = \frac{8,14}{2,12} = 3,839$$

According to the calculation above, it can be seen that the result of t observed is 3,839. In this testing hypothesis, the calculation of t table with the degree of freedom 58 (df = N1 + N2 − 2) and at the level of significant 0,05 shows that the critical value is 2,001 (See the t table in appendix 7). After calculate the score, it shows that in this research t observed is higher than t table (tobserved = 3,839 > ttable = 2,001).

Hypothesis Test

Hypothesis test was used to know the significant of research by using criteria of statistical hypothesis that can be seen as follow:

a. If t-test (t_o) < t-table (t_t) in significant degree of 0,05 = H_a is rejected and H_0 is accepted.

b. If t-test (t_o) > t-table (t_t) in significant degree of 0,05 = H_a is accepted and H_0 is rejected.

According to the calculation of t-test, it is found that t-test is higher than t table ($t_{observed}$ = 3,839 > t_{table} = 2,001). Thus, it can be conclude that Ha is accepted and it means that there is significant effect of using English Grammar Test application on the students' grammar mastery in simple past tense at eighth grade of junior high school.

According to the results above, it shows that there is an effect of using English Grammar Test application on the students' grammar mastery of simple past tense at eighth grade of MTs. Islamiyah Perkebunan Tanjung Kasau. It can be seen from the result or score in experimental class which has higher score than control class. Further, the result of this research validates some theories and related studies. As the American Council on the Teaching of Foreign Language argued about technology integration in learning that technology can be used to assist and enhance language learning. The use of mobile device as media in teaching and learning is the example of technology integration in teaching and learning language as the way to improve the students skill in language learning and this research found that the integration of technology such as using an application can improve the students' skill in language learning, for example the improvement in grammar mastery.

The result of this study is also related to Mughti who found that English Grammar Test Application is effective to teach grammar especially Simple Past based on the result of this

research shows that the computation of P-value is smaller than α (0,000 < 0,005). 11 In accordance with Yusuf who mentioned that the research by using English Grammar Test as media can improve the students' grammar competence based on the result of research which shows that tobservation is higher than ttable (to = 6,67 > tt = 2,01).12 Same as the result of this research which found that tobserved is higher than ttable (to = 3,839 > tt = 2,001), it means that in this research English Grammar Test application is also effective to improve students' grammar mastery of simple past tense.

The significant effect of the result is supported by several things such as the simple operation of application for students. It can be seen from the students who able to use it without difficulty. Another thing that can be seen is the amount of enthusiasm of the students in using this application such as good participation in learning and collecting score in the application. As an impact, the student score in experimental class which got a treatment by using this application can be better than control class. It was proven from the difference score of these two class where the experimental class got the score higher than control class.

Conclusion

According to the result and discussion of this research, it can be conclude that English Grammar Test application gives positive effect on the students' grammar mastery at eighth grade of Junior High School, especially at MTs Islamiyah Perkebunan Tanjung Kasau. The significant effect of this research can be seen from the average of students' post-test which has different score where the experimental class can obtain 79,60, meanwhile the control class only can obtain 71,47. Afterwards, the significant also can be seen from the analysis of data that shows tobserved (to) is higher than ttable (tt) in the significant level of 0,05 (3,839 > 2.001). Therefore, it can be concluded that Ha is accepted and Ho is rejected. It means that there is significant effect of English Grammar Test Application on students' grammar mastery. In another word, English Grammar Test Application can improve students' grammar mastery. The successful of using this mobile device as a media in teaching and learning is supported by the simple operation and some interesting features of this application which can attract the students' attention. It is showed from the great enthusiasm and actively involvement in teaching and learning process because they can use this media easily.

References

Ahmadi, M. R. (2018). The use of technology in English language learning: A literature review. *International Journal of Research in English Education (IJREE)*, 3(2), 115-125.

Badger, R. (2018). *Teaching and learning the English language: A problem-solving approach*. Bloomsbury Publishing.

Banu, S. R., & Nishanthi, R. (2017). Difficulties faced by college student in speaking English: A sociological reflection. *International Journal of Trend in Research and Development,* 4(3), 435-436.

Brinda, A. (2016). *English grammar rules and usage*. Notion Press.

Davies, R. S. (2013). *Technology integration in school: Handbook of research on educational communications and technology* (4th edition). Brigham Young University Press.

Fithriani, R. (2018). Communicative game-based learning in EFL grammar class: Suggested activities and students' perception. *JEELS*, 5(2), 171-188.

Fithriani, R., Dewi, U., Daulay, S. H., Salmiah, M., & Fransiska, W. (2019). Using facebook in EEFL writing class: Its effectiveness from students' perspective. In *The Second Annual International Conference on Language and Literature,* KnE Social Science, (pp. 634-645). DOI 10.18502/kss.v3i19.4892.

Gamlo, N. (2019). The benefits of integrating the "learn English grammar" application into the Saudi EFL pre-intermediate preparatory year classroom. *International Journal of English Language Education*, 7(1), 19-36.

Haswani, F. (2014). The role of technology in EFL classroom. *IJEE,* 1(2), 107-118.

Inayati, A. M., & Damayanti, D. (2016). Improving students' grammar ability (simple past tense) using "johnny grammar word challenge" application in junior high school. *Proceeding the 2ⁿᵈ International Conference on Teacher Training and Education Sebelas Maret*, 2(1), 876-881.

Kwangsawad, T. (2019). University students' perception of MALL in EFL class. *Studies in English Language Teaching*, 2(1), 175-191.

Mughti, Y. (2019). T*he effectiveness of English Grammar Application in students English grammar achievement at the first grade of Islamic Senior High School kota Blitar in academic year of 2018/2019. Thesis* IAIAN Tulungagung, Blitar Pendidikan Bahasa Inggris

Parvin, R. H., & Salam, S. F. (2015). The effectiveness of using technology in English language classroom in government primary school in Bangladesh. *Forum for International Research in Education (FIRE),* 2(1), 47-59.

Pazilah, F. N., Hashim, H., & Yunus, M. Md. (2019). Using technology in ESL classroom: Highlights and challenges. *Creative Education,* 10(12), 3205-3212.

Ammade, S., Mahmud, M., Jabu B., & Tahmir, S. (2018). Integrating technology in English language teaching: Global experiences and lesson for Indonesia. *International Journal of English Linguistics (IJEL)*, 8(6), 107-114.