

The Effectiveness of Memrise Application toward Students' Adjective Mastery

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Abstract. *This research was conducted because it was discovered that students had difficulty learning vocabulary, especially adjectives, and it was set against the background of several student problems. For instance, utilizing continuous paper-based learning to teach vocabulary resulted in boredom and could demotivate students. Dealing with that, one alternative solution was provided to the problem by implementing the memrise media to be tested in the learning process to teach adjectives. The research objective was to know the effectiveness of using memrise towards students' adjective mastery. Thus, this research used a quasi-experimental design and chose two classes by using cluster random sampling as the sample. The research instrument was tests, the results of which were analyzed using an independent sample t-test. The hypothesis testing results revealed that a significant value of 0.025 was obtained with a significance of $\alpha = 0.05$. Thus, there was effectiveness in using memrise application toward students' adjective mastery. Furthermore, the N-Gain score for the control class was 0.46, while for the experimental class was 0.58. Therefore, it could be stated that the memrise can be used and is effective as learning media for adjectives mastery for seventh grade students of SMP N 3 Pringsewu.*

Keywords: *learning media, memrise application, students' adjective mastery*

A. INTRODUCTION

Sentences in English are composed of various vocabulary items combined together. Thornbury (2002) categorized these vocabulary items into six types, with one of them being word classes. Adjectives belong to the word classes category and are words used to describe a thing, an idea, or a living being. By using adjectives, we

can communicate the quality of a person or object. In fact, it is impossible to describe the appearance of any object without employing adjectives (Leech, 2014).

Adjectives have been defined in various ways. For Dykes (2007), the word "adjective" itself was from the Latin *ad jacere*, meaning "throw to" or "add". In the grammatical sense, this means adding the characteristics of something, that is, qualifying it. Adjectives in the English dictionary employ "adj" to classify adjectives in a short word form. Rozakis, (2003) and Tamara (2007) have proposed different definitions. According to Rozakis, adjectives are often easy to identify as they answer questions such as "which one?", "what kind of thing are you talking about?" or "how many are there?" In most cases, a one-word adjective appears before the words it modifies. Adjectives describe, clarify, limit, and modify nouns or pronouns. Tamara, on the other hand, defines an adjective as a part of speech that indicates the quality or state of a substance or thing commonly known as a noun. In grammatical categories, it has only the degree of comparison. So, it was concluded that an adjective is one of the word classes that provides a brief description of pronouns and nouns by adding their characteristics, denoting their quality, and modifying them to make them clearer or more detailed.

In junior high school, particularly in seventh grade, teachers are responsible for teaching adjectives. Seventh grade students encounter adjectives regularly when describing things, providing information about the functions of people, animals, or things, and writing descriptive text. However, the adjectives typically used by students at this level are simple adjective words rather than adjective phrases or clauses.

There are differences in classifying the kinds of adjectives (Thomson, (1997); Tamara (2017); Rozakis, (2003); Rao, (2016). First, Tamara grouped them based on their morphological composition and their semantic characteristics. Second, for

Rozakis, adjective is of five kinds, adjective which common, adjectives which proper, adjectives which compound, adjectives which articles, and adjectives which indefinite. Last, there are a number of similarities between Rao and Thomson in classifying the kinds of adjectives, such as demonstrative adjectives, quantitative adjectives, interrogative adjectives, possessive adjectives, and quality adjectives.

However, there are also differences between them. Thomson and Martinet add distributive adjectives to kinds of adjectives, whereas Rao does not include them, but he does include adjectives of number to kinds of adjectives. According to the kinds of adjectives that several experts explained, in this research, the limitations were only four kinds of adjectives because the use of adjectives here was for creating simple descriptive text. The four kinds of adjectives are adjectives of quality, adjectives of quantity, possessive adjective and adjective of number.

As educators, it's essential to make adjective lessons more engaging and enjoyable for students. One effective approach for teaching adjectives is introducing a list of adjectives from a book and utilizing various media, such as the internet, for a more interactive learning experience (Berliani & Katemba, 2021). For instance, the Memrise application is an excellent tool for both teachers and students to enhance their vocabulary, particularly in adjectives, as those things are inseparable with learning English (Korlu & Mede, 2018).

Memrise is one of the online learning media in the form of a mobile application that can be accessed with Android and iOS devices through the website www.memrise.com and also through the play store or the like. It is used by Zhang, (2019) to refer to a vocabulary-focused online language-learning platform with an algorithmic review system in the form of a flash card. Memrise has been crowned the top-ranked flashcard and spaced repetition system. Moreover, Zhang points out that the website claims memrise is built on three scientific principles that help users

learn new words. The first principle is elaborate encoding which purpose to connect between new words and their meanings using mnemonics, etymologies, funny videos, photos, example sentences. The second principle is choreographed testing that purpose is to keep learning interesting and strengthen the user's memory. The third principle is the use of scheduled reminders to assist users in reviewing what they have learned. In the vocabulary training feature of memrise there were several variations, for example choosing vocabulary based on the original voice, compiling sentences based on listening to the original voice and playing vocabulary audio, matching, multiple choice, jumbled words or letters, typing, etc.

In learning adjective, theoretically, Bolton and Goodey had been able to show that problems related to adjectives are experienced by many students. Such as:

1. Students found it difficult to differentiate between adjective and adverb.
2. Students sometimes put adjectives after the noun, and they often put them in the wrong order. They often put adverbs in the wrong position.
3. Students confused adjectives which are similar, one ending in -ing, the other in -ed.
4. Students often confused the forms of the comparative and the superlative. They also forget to use “than”, or add a superfluous “more.”
5. Students often confused the forms of the demonstratives adjective.
6. Students sometimes confused possessive adjective and pronouns, and make them agreed with a plural noun.
7. Students used adjective, like some/any, something/anything, someone/anyone randomly.
8. Students tend not to use “a lot of”, and they confused the use of adjective quantity like much/many, few/little.

Still relating to the problems related to adjectives above, the other adjective problems were also found at school. Based on the preliminary research conducted

in SMPN 3 Pringsewu in the seventh grade, by interviewing the teacher, it was found out that there are many difficulties experienced by students in learning vocabulary, especially for learning adjectives. The students thought that English was difficult to learn. Basically, the teacher assumed that students had difficulty regarding the vocabulary that turned out to be limited (lack of vocabulary). This limitation is factored in because most of the students are less motivated in remembering the meaning of new vocabulary and grouping the new words into word classes.

The teacher observed that many students were reluctant to read and use dictionaries to explore new vocabulary. Furthermore, distinguishing between verbs, nouns, and adjectives was a challenge for students since some English words have multiple meanings in Indonesian. Another issue was the continued use of paper-based learning, which could lead to student disengagement and boredom. Therefore, this research aims to address these challenges by incorporating the memrise application in teaching adjectives at the junior high school level. Memrise offers numerous features that can benefit students in the learning process.

Research about memrise application and adjective mastery had actually been done by many researchers. First, based on the research that had been conducted by Arifin (2020), entitled "The Effectiveness of Memrise Application and Tinycards by Duolingo Application to Teach Adjective". Second research had been conducted by Santri (2020) entitled "The Effectiveness of Memrise Application to Upgrade Students' Vocabulary Mastery at the Second Grade of MA Ddi Kanang". Third research, entitled "Improving Students' Mastery of Irregular Verb by Using Memrise Application at the Tenth Grade of MAN Sidoarjo" (Rosydah, 2018). Fourth research, entitled "Developing Students' Mastery on Adjective Using a Systemic Approach" by Mallombasi et al. (2018). The last research was conducted

by Siregar & Dongoran (2020), entitled "The Students' Ability in Using Adjective in Writing Descriptive Text at Grade VIII in MTS YPKS Padangsidempuan." The similarity of previous research was that all of the research talked the use of memrise application and adjective mastery. Meanwhile, the difference between previous research and this research was shown by the objectives or focus of each research, the teaching of adjectives, and research method.

Referring to the explanation above, this research wanted to know the effectiveness of using memrise application toward students' adjective mastery. Therefore, it was entitled "The Effectiveness of Memrise Application toward Students' Adjective Mastery."

B. RESEARCH METHOD

This study employed a quantitative research method using a quasi-experimental design. The design utilized a control group pre- and post-test design, with one experimental class receiving treatment using the memrise application, and a control class receiving no treatment. The population for the study consisted of all seventh-grade students in the first semester of SMPN 3 Pringsewu during the academic year 2022/2023, with a total of 150 students divided into five classes. The sample group was selected from two classes, namely VII-1 and VII-5, totaling 60 students. Prior to administering the tests, validity and reliability tests were conducted. The pre-test was administered before treatment, while the post-test was administered after treatment. IBM SPSS 25 (Statistical Package for the Social Sciences, version 25) was used for data analysis, including normality and homogeneity tests, hypothesis testing, and normalized gain testing.

C. FINDINGS AND DISCUSSION

Findings

The Result of Experimental and Control Class

This research used two classes as the sample. The first, class VII–5 was the experimental class, which was given treatment three times using the memrise application as an adjective learning media. The second, class VII–1 was the control class, in this class the treatment using the memrise application was not provided, but the class used dictionaries and power points to teach adjectives through the lesson of descriptive text. The same materials, assignments, and learning activities were provided to both classes. However, the results showed that there were difference between the scores of the pre-test and post-test in both classes. The results of the two classes were presented in detail in the following table:

Table 1. the Score of Pre-test and Post-test

Class	N	Score of Pre-test			Score of Post-test		
		Mean	Max	Min	Mean	Max	Min
Experimental	30	47,78	66.7	33.3	78,89	100	60
Control	30	47,11	60	33.3	71,82	93.3.	53.3

The result indicated that the students had relatively low adjective abilities, with a mean pre-test score of 47.78 in the experimental class and 47.11 in the control class. The means of both classes were slightly different, so it can be said that they have the same level of knowledge in adjective mastery. After the treatment was given, the score was higher. The results of students' ability to master adjectives can be seen from the mean post-test scores of both classes. In the experimental class, the mean post-test score was 78.89, while in the control class, the mean post-test score was 71.82.

The Result of Validity and Realibility Test

To determine whether or not the test had good validity, this research conducted a validity test by analyzing the test's construct validity and content validity. The content validity test was done using a checklist by English teacher in the class, namely Mrs. Triyanti Viandani, S.Pd., M.Pd. as the validator. Based on her, the instrument of the research's test questions was declared valid, and there were no suggestions for improvement.

The research used IBM SPSS 25 to test the construct validity of the test. Based on the results of trials that had been carried out on students outside the sample, namely 26 students of class VIII-1 with a significant level of 0.05, the validity of the test questions was analyzed by comparing the calculated rcount with the rtable of 0.388. This research only needed a test instrument with a total of 15 questions for each test. A question can be categorized as valid if rcounts > rtables. So, it can be concluded that of the 20 questions tested, there were five invalid questions that could not be used in the pre-test, namely questions numbers 1, 7, 10, 15, and 18, and there were four invalid questions that could not be used in the post-test, namely numbers 10, 11, 16, and 20.

A reliability test was conducted after the test was declared valid. It was used to determine whether the instrument used was consistent and stable or not. To calculate the reliability test of the pre-test and post-test used, this research used IBM SPSS 25 with the Alpha Cronbach formula, and the results were shown in the following table:

Table 2. the Reliability of Pre-test and Post-test

Reliability Statistics		
The tests	Cronbach's Alpha	N of Items
Pre-test	.907	15
Post-test	.826	16

From the table, it can be concluded that the pre-test and post-test items used were reliable because the reliability test results obtained r_{count} were $> r_{table}$, namely $0.907 > 0.388$ for the pre-test and $0.826 > 0.388$ for the post-test. So, the items in the research instrument can be said to meet the test criteria that were feasible to use and may be tested on the two samples selected in the research.

Fulfillment of the Assumption

After the pre-test, treatment, and post-test were carried out, the next procedure was to calculate the post-test results of the two classes and conduct a test of normality and homogeneity as fulfillment of the assumption. The results of students' ability to master adjectives can be seen from the mean post-test scores of both classes. In the experimental class, the mean post-test score was 78.89, while in the control class, the mean post-test score was 71.82. Next, to find out whether the data used met the assumptions or not, normality and homogeneity tests were conducted. In calculating the normality test, this research used kormogolov- smirnovas on SPSS 25 and obtained results from both pre-test and post-test data of both classes having a significance value > 0.05 , which means the data was normally distributed. As for the homogeneity test, it used Levene's test with the help of SPSS 25, and the result was that the research data proved to be homogeneous, with the data based on the means of both classes having a significance value of > 0.05 , which was 0.281. The results of the normality and homogeneity test that were done are presented in the following table:

Table 3. the Normality of Pre-test and Post-test

Tests of Normality		
Class	Sig.	Inference
Pre-test Experimental Class	.088	Normal
Post-test Experimental Class	.186	Normal
Pre-test Control Class	.068	Normal
Post-test Control Class	.112	Normal

Table 4. the Homogeneity of Pre-test and Post-test

Test of Homogeneity of Variance				
	Levene Statistic	df1	df2	Sig.
Based on Mean	1.185	1	58	.281

Result of a Hypothetical Test

To find out whether there were differences in student learning results on adjective mastery between the experimental class, which had the treatment using the memrise application, and the control class, which was not treated with the application, it was calculated with the help of IBM SPSS 25 with a significance level (2-tailed) of 0.05 and obtained hypothesis test data in the following table:

Table 5. the Hypothesis of the Test

Hypothesis of the Test			
	t	df	Sig. (2-tailed)
Equal variances assumed	2.300	58	.025

Hypothesis testing was carried out with an independent sample t-test. the results of the significance level of hypothesis testing with homogeneous variance were 0.025. Thus, H_a was accepted and H_o was rejected because $0.025 < 0.05$ with the provisions of $\text{sig} < \alpha = 0.05$, so it can be concluded that there is effectiveness in using memrise application towards students' adjective mastery.

Normalized Gain (N-Gain) Test

The N-Gain test was conducted because, based on the previous t-test analysis, there was a significant difference in the mean post-test results of the two classes.

To calculate the N-Gain test, this research used IBM SPSS 25, so it could see the effectiveness of the memrise application that she previously used as a treatment in the experimental class. The results of the N-Gain test calculations can be seen in the table below:

Table 6. the Result of Normalized Gain

Class	N-Gain Score	Category	N-Gain Percentage (%)	Interpretation
Experimental	0,58	Medium	58%	Effective enough
Control	0,46	Medium	46%	Less effective

In the experimental class, the N-Gain test score was 0.58, or 58%. While in the control class, the results of the N-Gain test got a score of 0.46, or 46%. Based on the category of distribution of N-Gain scores, the two classes with scores of 0.58 and 0.46 fell into the medium category. Meanwhile, based on the category of interpretation of the effectiveness of the N-Gain score, the score of 58% in the experimental class was included in the "effective enough" interpretation, and the score of 46% in the control class was included in the "less effective" interpretation

Discussion

Several procedures had already been completed to conduct this research. The first was to conduct preliminary research, the second was to enter a letter to the school to meet and discuss with the English teacher, then continue to conduct the content and construct validity tests. After that, a pre-test was given for two classes. Then teach an adjective three times for each class. Giving treatment to teach adjectives for the experimental class with the memrise application and teaching adjectives for the control class without using treatment but using dictionaries and a power point. For the experimental class, the students were divided into groups and then instructed to open, study, and do various quizzes on kinds of adjectives in the Memrise application for 40 minutes. After teaching adjectives, the post-test was given for both classes.

Then, to fulfill the assumption, this research continued to conduct normality and homogeneity tests. The result was that the data was normal and homogeneous. After

these assumptions were fulfilled, it continued with the next procedure, namely testing the hypothesis using an independent sample t-test to find out whether the memrise application had effectiveness on the adjective or not. Based on the frequency table, a significance value of 0.025 was obtained. This means that H_0 was accepted, and it can be stated that there is effectiveness in using memrise application towards students' mastery of adjective. The last procedure was to conduct N-Gain after proving its effectiveness to know how effective the memrise application was. The result was that using the memrise application medium was effective in improving the students' mastery of adjectives. It is also supported by the results of some previous research.

There were some impacts from the implementation of using the Memrise application as media when the researcher taught in a class. However, in conducting this research, there were several research limitations. For example, the data collection method used was only from the results of students' test score data, later, treatment was only given three times in four meetings based on permission granted by the school where the research was conducted; and the last limitation was that it could not control things that were beyond her reach in analyzing students' seriousness in learning adjectives when the research was being conducted. Even so, in general, the students enjoyed following the instructions, so the teaching and learning process ran well.

D. CONCLUSION AND SUGGESTION

Conclusion

Based on the data analysis, there was effectiveness of using memrise application towards students' adjective mastery of first semester seven grader students of SMPN 3 Pringsewu. The effectiveness can be seen from Sig. (2-tailed) of the equal variance was assumed in the Independent Sample t-test table where Sig. (2-tailed)

was 0.025. Less than $= 0.05$. It meant that H_a was accepted and H_o was rejected. Furthermore, based on the results of the gain normalization test, the N- Gain score for the control class is 0.46 (46%), with a less effective interpretation, while for the experimental class it is 0.58 (58%), with an effective enough interpretation. Therefore, it can be stated that the memrise application can be used and is effective as a learning media for the mastery of adjectives for seventh grade students of SMP N 3 Pringsewu.

Suggestion

In this research, there are still limitations to the research that has been conducted; therefore, it is suggested that further researchers conduct this research using additional research instruments, such as questionnaires, so that they can better support the findings from the research conducted. In addition, it is also suggested that future researchers should use a longer period of time to provide treatment using the memrise application in the classroom so that the results are as expected. And the last recommendation is that future researchers are advised to conduct similar research on other skills or components such as writing, listening, reading, or writing speaking skills or vocabulary and grammar to improve English teaching.

E. REFERENCES

- ARIFIN, I. (2020). *THE EFFECTIVENESS OF MEMRISE APPLICATION AND TINYCARDS BY DUOLINGO APPLICATION TO TEACH ADJECTIVE (A QUASY EXPERIMENTAL RESEARCH AT THE 11TH GRADE STUDENTS OF SMA KARTIKA III-1 BANYUBIRU IN THE ACADEMIC YEAR OF 2019/2020)* [PeerReviewed]. IAIN SALATIGA. <http://e-repository.perpus.iainsalatiga.ac.id/8464/>
- Berliani, N. A., & Katemba, C. V. (2021). THE ART OF ENHANCING VOCABULARY THROUGH TECHNOLOGY. *Jurnal Smart*, 7(1), Article 1. <https://doi.org/10.52657/js.v7i1.1340>

- Dykes, B. (2007). *Grammar for Everyone: Practical Tools for Learning and Teaching Grammar* (Illustrated edition). ACER Press.
- Korlu, H., & Mede, E. (2018). Autonomy in Vocabulary Learning of Turkish EFL Learners. *The EuroCALL Review*, 26(2), Article 2. <https://doi.org/10.4995/eurocall.2018.10425>
- Leech, G. N. (2014). *The pragmatics of politeness*. Oxford University Press.
- MALLOMBASI, M., Akil, M., & Iskandar, I. (2018). Developing students' mastery on adjective using a systemic approach. *International Journal of Humanities and Innovation (IJHI)*, 1(4), Article 4.
- Rao, D. N. D. V. P. (2016). *The Grammar Gate Book 4*. S. Chand Publishing.
- Rosydah, E. C. (2018). *Improving student's mastery of Irregular Verb by using Memrise application at the tenth grade of MAN Sidoarjo*.
- Rozakis, L. (2003). *English Grammar for the Utterly Confused* (1st edition). McGraw Hill.
- Santri, F. (2020). *The Effectiveness of Memrise Application to Upgrade Students' Vocabulary Mastery at the Second Grade of MA DDI Kanang* [Undergraduate, IAIN Parepare]. <http://repository.iainpare.ac.id/1812/>
- Siregar, S. R., & Dongoran, N. (2020). Students' Ability in Writing Descriptive Text. *English Education : English Journal for Teaching and Learning*, 8(01), Article 01. <https://doi.org/10.24952/ee.v8i01.2683>
- Thomson, A. J. (1997). *A Practical English Grammar, 4/e PB*. OXFORD UNIVERSITY PRESS-NEW DELHI.
- Thornbury, S. (2002). *How to teach vocabulary*. Pearson.
- Zhang, X. (2019). Learning Technology Review: Memrise. *CALICO Journal*, 36(2), 152–161.