

THE IMPACT OF MULTIMODAL LEARNING ON VOCABULARY ACQUISITION AMONG EIGHTH-GRADE STUDENTS

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The multimodality method represents an effective approach for students seeking to enhance their vocabulary. The eighth-grade students from Al-Ikhlas Addary DDI Takkalasi Barru exhibited deficiencies in vocabulary, prompting this research to investigate the impact of employing visual and auditory multimodality techniques to enhance their vocabulary proficiency. A quasi-experimental research method was employed to collect the data, which was subsequently analyzed using the statistical software package SPSS. The pre-test results indicate that 6 participants (20%) demonstrated proficiency, while 7 participants (23%) exhibited a satisfactory level of understanding. Following the implementation of the treatment, the results of the post-test indicate that 8 participants (27%) demonstrated an excellent level of proficiency, 10 (33%) exhibited a very good level of proficiency, and 12 (40%) demonstrated a good level of proficiency. The results demonstrate that the mean pre-test score is 63.13, while the mean post-test score is 89.43. The findings of this research demonstrate that the utilisation of multimodal methods within the classroom environment facilitates enhance vocabulary development among students.

Keywords: *EFL; ELT; Multimodal Learning; Vocabulary Acquisition*

1. INTRODUCTION

The study of English has been a prominent feature of the Indonesian educational landscape for several years (Mappiasse & Sihes, 2014; Rakhmyta & Maharani, 2022). In this context, the term 'English as a Foreign Language' (EFL) is applicable, as English is acquired as a foreign language, rather than as a native tongue or a second language. In the pursuit of proficiency in English as an EFL, learners must navigate a range of linguistic competencies (Condelli et al., 2016; Mustafa et al., 2022; Wang & Wen, 2023). One such area is vocabulary acquisition.

Vocabulary mastery constitutes a pivotal aspect of the English language learning process (Ahsan et al., 2021; Santillan & Daenos, 2020; Zahrani & Chaudhary, 2022). Vocabulary mastery represents a measure of knowledge and understanding of vocabulary in language learning, functioning as a fundamental aspect of foreign language acquisition that can be applied across the four language skills: listening, reading, speaking, and writing (Amirzai, 2021; Nasyirah, 2018; Sari et al., 2021). It can be argued that the mastery of vocabulary is an effective method for developing proficient English skills.

Concurrently, a considerable number of students are unable to acquire English vocabulary due to the presence of significant impediments. Fitriawan et al (2021) posited that the impediments to effective second language acquisition include: The three main obstacles that students face when learning a second language: 1) memorizing English words, 2) translating English words into Indonesian, and 3) pronouncing English words. A significant proportion of students are unable to express themselves in a language without a firm grasp of the vocabulary of that language, which in turn impedes their ability to communicate effectively with others.

The preliminary research conducted by the researchers at the Al-Ikhlas Addary DDI Takkalasi Islamic Boarding School revealed that students are unable to explore their abilities and have low English literacy due to a lack of vocabulary. The students encounter difficulties in expressing and communicating their ideas in English.

Nevertheless, there is a method that has been demonstrated to enhance vocabulary,

namely the multimodality method. The method is based on the utilisation of diverse media and pedagogical tools for the instruction and tutoring of students in accordance with the VARK framework (Visual, Auditory, Reading, and Kinesthetic) (Fleming & Mills, 1992). The VARK model is particularly relevant in the context of English language learning, where vocabulary mastery is a critical component (Lee, 2019; Sayed et al., 2023). Furthermore, numerous previous researchers have discovered that multimodality has a beneficial impact on students' capabilities and motivation to learn English. This approach enables students to move beyond memorization and facilitates effective pronunciation of English words (Faishol et al., 2021; Ilmi & Dewi, 2022; Marantika et al., 2021; Pan & Zhang, 2020; Salamanti et al., 2023; Yuniasari et al., 2023). Previous researchers have conducted studies on these four types of multimodality methods, and all have yielded positive results (Nurtasha & Triyani, 2021; Othman & Amiruddin, 2010).

In relation to the aforementioned case, the objective of the researchers is to ascertain whether the multimodality method can enhance the students' vocabulary acquisition. Nevertheless, the present study is limited to visual and auditory methods, as these have been identified as the most effective for enhancing students' vocabulary proficiency, as evidenced by the findings of Faishol et al. (2021).

2. RESEARCH METHOD

In this study, quasi-experimental research was employed to ascertain the impact of the multimodality method, designated as the independent variable (X), on the student's vocabulary mastery, designated as the dependent variable (Y). The experimental designs employed a pre-test, treatment, and post-test. The object of the study comprised two classes: an experimental class and a control class. Consequently, the researchers conducted a pre-test, treatment, and post-test to collect data. The researchers utilized multimodality methods as the treatment in the experimental classes. Conversely, the control class did not receive any treatment. Ultimately, the researchers obtained results from both the experimental and control classes.

The population under investigation in this study comprised students in Class VIII of the Al-Ikhlâs MTs in Takkalasi, a branch of the DDI Takkalasi Islamic Boarding School, situated in Barru Regency, South Sulawesi. The precise location of the school is at No. 21, Jalan H.M. Tahir Dani, Takkalasi, Balusu, Barru City, South Sulawesi.

The sampling technique employed in this research was purposive sampling. The sample was selected based on the specific criteria that were deemed relevant to the study in question. In this study, the researchers examined two classes as samples, namely classes VIII A and VIII B, comprising a total of 60 students. Accordingly, the researchers divided the participants into two groups: the control group and the experimental group.

The instrument was a vocabulary test comprising 30 multiple-choice items. The researchers employed a pre-test, treatment, and post-test methodology to collect data. The preliminary assessment was administered at the inaugural session prior to the implementation of the intervention. In the preliminary assessment, the researchers administered a test to the experimental and control groups. The objective was to ascertain the students' fundamental vocabulary knowledge prior to the administration of the treatment.

Following the administration of the pre-test, the experimental class was subjected to treatment utilizing the multimodal approach, whereas the control class was not exposed to this treatment or was only exposed to the conventional method. The researchers provided treatment to students, with a particular focus on vocabulary acquisition. In the context of vocabulary acquisition, the researchers employed a multimodal approach as the treatment modality. Before the implementation of the treatment, the researchers employed a staged approach, rather than providing the treatment directly. The researchers initiated the learning process by providing an overview of the treatment procedures, explaining the rationale behind the multimodal approach to vocabulary acquisition, and introducing the vocabulary to be learned. They then proceeded to administer exercises designed to reinforce the newly acquired vocabulary. The researchers provided the treatment over four sessions, each lasting 60 minutes. After the fourth session, the researchers invited the students to identify

any vocabulary they had already acquired.

At the previous meeting, the researchers administered a post-test to the students to ascertain their achievements or progress in expanding their vocabulary. The format of the test was identical to that of the pre-test. The students were instructed to provide the most appropriate response to the questions posed in the test. The researchers permitted the students 60 minutes to complete the test. The results of this test will demonstrate whether there have been any changes following the application of the multimodality method.

Subsequently, the data gathered from the pre-test and post-test scores were subjected to an analysis using the t-test, a statistical calculation provided in SPSS for Windows software. This was employed to ascertain the normality of the data and to determine the extent of the differences in English vocabulary scores when the multimodality method was employed.

The researchers formulated two hypotheses, designated as H0 and H1. It can be stated that the utilization of multimodality had a notable impact on the enhancement of vocabulary proficiency or had no discernible influence on the development of vocabulary abilities among the eighth-grade students at MTs Al-Ikhlas Addary DDI Takkalasi.

3. FINDINGS AND DISCUSSION

The results of the preliminary assessment are presented in the table below. The data presented in the table illustrate the percentage and frequency of the experimental and control classes. This indicates that 6 (20%) of the 30 students in the experimental class were classified as good, 7 (23%) as fairly good, 11 (37%) as fairly good, 5 (17%) as poor, and 1 (3%) as very poor.

In the control class, 4 students (13%) were rated as good, 13 (43%) as fairly good, 4 (13%) as fairly good, 8 (27%) as poor and 1 (3%) as very poor. This indicates that 6% of students in the experimental class were rated as good and 23% as fairly good. The majority of students demonstrated inadequate performance in the pre-test, particularly in the "sufficient" grade, indicating that their vocabulary acquisition abilities remain limited. The following table demonstrates students' scores of the Pre-Test

Table 1. The Rate Percentage of Students' Scores of Pre-Test

No	Classification	Score	Experiment		Class Control	
			Frequency	Percentage %	Frequency	Percentage %
1	Excellent	96-100	0	0%	0	0%
2	Very Good	86-95	0	0%	0	0%
3	Good	76-85	6	20%	4	13%
4	Fairly Good	66-75	7	23%	13	43%
5	Fairly	56-65	11	37%	4	13%
6	Poor	36-55	5	17%	8	27%
7	Very Poor	0-35	1	3%	1	3%
	TOTAL		30	100%	30	100%

Table 1 shows that the majority of students achieved poorly in the vocabulary mastery assessment. In contrast, the results of the post-test indicates that there is a major increase the the students' vocabulary mastery. The table below shows the percentage and frequency of the experimental and control groups in the post-test.

Table 2. The Rate Percentage of Students' Score of Post-Test

No	Classification	Score	Experiment		Class Control	
			Frequency	Percentage %	Frequency	Percentage %
1	Excellent	96-100	8	27%	0	0%
2	Very Good	86-95	10	33%	0	0%
3	Good	76-85	12	40%	12	40%
4	Fairly Good	66-75	0	0%	13	43%
5	Fairly	56-65	0	0%	2	7%
6	Poor	36-55	0	0%	3	10%
7	Very Poor	0-35	0	0%	0	0%
Total			30	100%	30	100%

It is observable that in the experimental class, eight students (27%) were rated as excellent, 10 students (33%) were rated as very good, and 12 students (40%) were rated as good. In the control class, 12 students (40%) were rated as good, 13 students (43%) were rated as fairly good, two students (7%) were rated as fairly good, and three students (10%) were rated as poor. Eight students (27%) are rated as excellent, 10 students (33%) as outstanding, and 12 students (40%) as excellent. The majority of students, particularly those with high levels of academic achievement, tend to perform better on the post-test.

The next step is to examine the descriptive statistics of the pre-test and post-test for the experimental and control classes. The following table presents a descriptive study of the students' vocabulary acquisition at the pre-test and post-test.

Table 3. The Descriptive Analysis of Pre-test and Post-test of the Two Classes

Descriptive Statistics					
Kelas	N	Minimum	Maximum	Mean	Std. Deviation
PreTest Eksperimen	30	30	83	63.13	12.918
PostTest Eksperimen	30	76	100	89.43	7.855
PreTest Kontrol	30	33	83	62.67	13.897
PostTest Kontrol	30	40	83	70.50	10.894
Valid N (listwise)	30				

As illustrated in the above table, the mean score of the pre-test for students in the experimental class is 63.13, with a standard deviation of 12.92. In comparison, the mean score of the pre-test for students in the control class is 62.67, with a standard deviation of 13.897. This indicates that the mean value of the experimental class (63.13) is greater than that of the control class (62.67).

The mean score of the post-test for the experimental class students is 89.43, with a standard deviation of 7.855. In comparison, the mean score of the post-test for the control class students is 70.50, with a standard deviation of 10.894. This suggests that the experimental class is outperforming the control group in terms of the mean value ($89.43 > 70.50$). A normality and homogeneity test was conducted using the statistical software package SPSS 24. The homogeneity of the data was evaluated using the Levene test, while the normality of the distribution was assessed through the application of the Kolmogorov-Smirnov test. The results of the aforementioned tests are presented in the following table for the reader's convenience.

Table 4. The Normality Test

		Tests of Normality					
	Kelas	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Students learning outcomes	PreTest	.138	30	.154	.955	30	.236
	Eksperimen						
	PostTest	.194	30	.006	.877	30	.002
	Eksperimen						
	PreTest Kontrol	.205	30	.002	.904	30	.011
	PostTest Kontrol	.173	30	.022	.854	30	.001

In light of the findings of the normality test, which indicated that the significance value exceeded 0.05 (0.154 > 0.05), it can be concluded that the residual values are normally distributed.

Table 5. The Homogeneity Test

		Test of Homogeneity of Variance			
		Levene Statistic	df1	df2	Sig.
Students learning outcomes	Based on Mean	.599	1	58	.442
	Based on	.245	1	58	.623
	Median				
	Based on	.245	1	41.593	.623
	Median and with adjusted df				
	Based on trimmed mean	.452	1	58	.504

The results of the homogeneity test indicate that the significance value is greater than 0.05, thereby supporting the conclusion that the variance of the data is equal. Subsequently, the hypothesis is evaluated in this study through the utilization of an independent samples t-test. The independent samples t-test is employed for the comparison of two unpaired samples. In order to ascertain the statistically significant value in this study, the results of the independent samples t-test derived from the post-test results of both classes are employed. Should the significance value be less than 0.05, the hypothesis is accepted; conversely, if it is greater than 0.05, it is rejected.

Table 5. Independent Sample 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	95% Confidence Interval of the Difference
									Lower Upper
Learning outcomes	Equal variances assumed	.599	.442	7.721	58	.000	18.933	2.452	14.025 23.842
	Equal variances not assumed			7.721	52.739	.000	18.933	2.452	14.015 23.852

The results of the independent samples t-test yielded a significant value of 0.00 (two-tailed), which is less than 0.05 assuming equal variances. The results demonstrate that the alternative hypothesis suggests that the implementation of multimodal techniques has a notable impact on enhancing vocabulary acquisition.

The data indicates that the utilisation of multimodality techniques has led to a notable enhancement in students' vocabulary acquisition abilities. This finding is in alignment with the results reported by Lee (2019). He concluded that learners of English as a foreign language require the integration of multimodality and pedagogy. Furthermore, Pan and Zhang (2020) discovered that the implementation of a multimodal teaching methodology in the instruction of English reading at the secondary level can enhance students' motivation to engage in reading classes and facilitate the development of their English reading abilities. Additionally, the majority of students exhibit a favorable disposition towards the multimodal teaching approach. In light of the aforementioned findings, it can be posited that the utilisation of multimodal techniques is an efficacious method for enhancing vocabulary acquisition among grade 8 students at MTs DDI Takkalasi.

4. CONCLUSION AND SUGGESTIONS

The researchers conclude that the mean pre-test score for the students is 63.13, while the mean post-test score is 89.43. The result is that the null hypothesis (H₀) is rejected and the alternative hypothesis (H₁) is accepted. This demonstrates that the utilisation of the multimodality approach for the instruction of eighth-grade students at MTs DDI Takkalasi is an efficacious methodology for enhancing their vocabulary proficiency.

In light of the aforementioned conclusions, a number of recommendations can be put forth for students and English language educators. For students, this provides an opportunity to practice their vocabulary mastery at home. Such expansion of vocabulary may be achieved through the utilisation of multimodality methods, which facilitate the acquisition of vocabulary in an automated manner. For English teachers, the use of multimodality methods in the classroom is recommended as it offers an innovative approach to teaching English. As one of the most widely used methods, the incorporation of multimedia in EFL classrooms has been shown to enhance students' English skills, particularly in terms of vocabulary acquisition, by creating engaging and productive learning environments. Furthermore, this research can serve as a valuable reference for other researchers with similar objectives.

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