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THE EFFECTIVENESS OF BLENDED MEDIA IN TEACHING STUDENTS' VOCABULARY MASTERY AT SEVENT GRADE AT SMP ARRAHIM PONTIANAK

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Abstract. *This research aims to improve students' vocabulary mastery through the use of blended media in teaching English at the seventh grade of SMP Arrahim Pontianak. Vocabulary is a central component of language learning that requires continuous development, as it supports students' ability to communicate effectively. Preliminary observations revealed that many students experienced difficulties in mastering vocabulary because the teaching process was monotonous and lacked interactive learning activities. To address this issue, the researcher applied blended media—a combination of two types of instructional media—as a technique to enhance students' vocabulary learning. This study employed a pre-experimental design using a one-group pre-test and post-test format. The sample consisted of 15 seventh-grade students from SMP Arrahim Pontianak. Data were collected through tests, observations, and interviews. The pre-test was administered to determine students' initial vocabulary mastery, followed by treatment using blended media, and a post-test was given to measure the improvement. The quantitative data were analyzed by calculating the mean and standard deviation, while qualitative data provided additional insights into students' learning experiences. The findings showed a significant improvement in students' vocabulary mastery after the treatment. The mean score increased from 74.67 in the pre-test to 87.33 in the post-test, with a decrease in score variation (standard deviation from 14.07 to 13.87). Most students moved from fair to very good categories. The results indicate that blended media effectively enhanced students' vocabulary mastery by making learning more engaging and interactive.*
Keywords: *vocabulary mastery, blended media, English teaching, pre-experimental design, junior high school*

INTRODUCTION

Learning English is very important, because English has become an International language. Language is used for communication, which is used by most communities in the world. In many countries use English as their second language in Indonesia, English is not considered as a second language but English is a foreign language English is also called as the target language that has to be thought by the teacher in schools in today's Indonesian curriculum. Therefore the student is hoped increase their ability in English.

In English, there are four components of language skill covering listening, speaking, reading, and writing that should be learned by the students deeply and appropriately. Those four skills cannot be separated in order to support the mastery of English skills as mentioned above, it is essential to learn vocabulary. It becomes a central part in English learning vocabulary refers to a list or set of words for a particular language or a list or set of words that individual speaker of a language might use.

Vocabulary is a part of language learning that need continuing growth and development by both native and non-native speakers long after grammar and pronunciation elementary school until senior high school. Learning vocabulary as a foreign language seems easy but some students feel fear. The teacher of English should find out solution by creating efficient and effective technique of teaching in teaching English vocabulary.

In fact, in daily classroom activity, student often find difficulty in vocabulary and how to different among verb, adjective, adverb, and noun, at junior high school grade in the first year less knowledge of vocabulary "when people could master grammar and pronunciation better than vocabulary, they will be difficult to communicate but if their master vocabulary is better than grammar and pronunciation, they will be easy to communicate".

When examining students' vocabulary skills at SMP Arrahim Pontianak, the researcher found that many struggle to improve their vocabulary mastery. One key reason is that the teaching methods used by the teacher are not engaging, making students feel bored. Instead of interactive learning, they are often required to memorize vocabulary from the whiteboard without meaningful practice. As a result, students passively listen to the teacher's explanations without actively using the words in context. In the English language curriculum for both junior and senior high school, vocabulary mastery is emphasized as an essential component. The curriculum states that junior high school students should acquire a vocabulary of at least 1,000 words to be able to communicate effectively in English. However, the actual results of English language teaching in schools are often disappointing. Despite studying English for six years—spending nearly 900 hours in the classroom—many graduates still struggle to use the language for real-life communication.

Based on the situation, the researcher will use blended media as the technique in teaching vocabulary. Blended media means that the using of two kinds of media in teaching. Therefore, the researcher is interested to use blended media in teaching vocabulary in order to solve the students' problem in mastering vocabulary.

Based on the background above, the researcher is interested in carrying out the researcher entitled "using Blended Media to improve students' vocabulary mastery at the seventh Grade at SMP Arrahim Pontianak.

METHOD

This study employs a pre-experimental design using a one-group pre-test and post-test to investigate the effectiveness of blended media in improving the vocabulary mastery of seventh-grade students at SMP Arrahim Pontianak. A quantitative approach is used to measure students' vocabulary improvement by comparing their pre-test and post-test scores, while qualitative data obtained through classroom observations, interviews, and expert evaluations provide further insights into students' motivation, vocabulary acquisition, classroom engagement, and challenges during the learning process. Combining quantitative and qualitative approaches provides a more comprehensive understanding of the research findings. The study will be conducted at SMP Arrahim Pontianak for more than one month during the 2024/2025 academic year. The population consists of 15 seventh-grade students from class VII A, with 10 students selected as the research sample using random sampling. The primary research instrument is a vocabulary test administered before and after the treatment to measure students' vocabulary mastery and improvement (Burns, 2000; Gay, 1981; Margono, 2004; Sugiono, 2014).

The data collection procedure consists of a *pre-test*, treatment, and *post-test*. In the *pre-test*, students are asked to identify and write the English names of pictures to determine their initial vocabulary mastery. Subsequently, the researcher provides treatment using blended media through audiovisual materials over four meetings, covering four topics: "Family," "Colors and Numerals," "Animals," and "Fruits." During each meeting, students observe pictures displayed through audiovisual media, write the corresponding English vocabulary, memorize the words for 15 minutes, and practice pronouncing them correctly. The researcher also checks students' written responses, encourages them to share their opinions about the lesson, and concludes each session by reviewing the learning materials. After completing all four treatment sessions, students take a *post-test* by writing the English names of objects found in the classroom. The results are then compared with the *pre-test* scores to determine whether blended media contributes to the improvement of students' vocabulary mastery (Alshwiah, 2010; Osguthorpe & Graham, 2003; Read, 2000; Djiwandono, 2013).

The collected data are analyzed using quantitative techniques. First, students' vocabulary test scores are calculated by dividing the number of correct answers by the total number of test items and multiplying the result by 100. Second, the scores are classified into five achievement levels and analyzed to determine the mean score and percentage of students' achievement. The mean score is calculated using the formula $\bar{X} = \frac{\sum X}{N}$, while the percentage is calculated using $P = \frac{F}{N} \times 100\%$, where F represents frequency and N represents the total number of students. Finally, a *t-test* is used to determine the significant difference between the *pre-test* and *post-test*

results. These procedures are intended to determine whether the implementation of blended media significantly improves the vocabulary mastery of seventh-grade students at SMP Arrahim Pontianak (Arikunto, 2005; Sudijono, 2014; Sattler, 1988).

RESULTS AND DISCUSSION

This chapter is organized into two sections, namely the research findings and the discussion. The findings section presents a detailed description of the results obtained from the collected test data, which are further analyzed and discussed in the subsequent section.

Finding

The findings of this research focus on the classification of students' pre-test and post-test results. To address the research question presented in the previous chapter, the researcher administered a test on two occasions. The pre-test was conducted before the treatment to measure the students' initial vocabulary mastery, while the post-test was given after the treatment using blended media. The post-test results served to determine whether the use of blended media could improve the vocabulary mastery of seventh-grade students at SMP Arrahim Pontianak.

Results of the students' Vocabulary Mastery

This section presents the results of the data analysis regarding the vocabulary mastery of seventh-grade students at SMP Arrahim Pontianak.

Students' pre-test scores

The pre-test was administered to identify the students' vocabulary comprehension before receiving the treatment. and the results of the pre-test are displayed in the following table:

Table 1. The students' scores on the pre-test

Students	Pre-test of the students (X1)			
	Max Score	Score	Xx^2	Classification
student 1	100	90	8100	very good
student 2	100	70	4900	Fair
student 3	100	70	4900	Fair
student 4	100	90	8100	very good
student 5	100	90	8100	very good
student 6	100	70	4900	Fair
student 7	100	80	6400	Good
student 8	100	50	2500	Poor
student 9	100	90	8100	very good
student 10	100	90	8100	very good
student 11	100	70	4900	Fair
student 12	100	80	6400	Good
student 13	100	60	3600	Fair
student 14	100	70	4900	Fair
student 15	100	50	2500	Poor
		1120		

Sumber : Diolah oleh peneliti

The pre-test results given to 15 students showed variations in their initial abilities before being given treatment in the experimental study. The maximum score that could be achieved was 100, with the scores obtained by students ranging from 50 to 90.

Based on the score classification:

a. A total of 5 students were in the very good category (score of 90).
b. Two students were in the good category (score of 80)
c. Six students were in the fair category (scores between 60 and 70).
d. Two students were in the poor category (score of 50).

The total pre-test score was 1,120 with an average of 74.67. This indicates that the students' initial abilities were in the fairly good category, although there were still some students who obtained low scores.

The variation in scores from poor to very good shows that the students' abilities were not uniform. Therefore, the treatment given in this experimental study is important to see to what extent the strategies or methods used can improve student learning outcomes.

In general, these pre-test results serve as an initial benchmark to be compared with the post-test results, so that any improvement, decline, or stability in learning outcomes after the treatment is applied can be analyzed.

Firstly, the researcher calculated the mean score of the pre-test

$$\bar{X} = \frac{\sum X}{N}$$

$$= \frac{1120}{15}$$

$$= 74{,}67$$

Thus, the mean score (X_1) of the pre-test was 74,67

Based on the result of the pre-test, the data showed that the mean score of the pre-test was 74,67. From that analysis, it means that students' vocabulary mastery was low because most students gained a fair score.

Secondly, the researcher calculated the standard deviation of the pre-test

Average $\frac{1120}{15} = 74.6666667 = 74.67$

Next step

$$s^2 = \frac{\sum(xi - \bar{x})^2}{n-1} = \frac{2773,33333333}{15} = \frac{2773,33333333}{14} = 198,0952381$$

$$s\ \sqrt{s2} = \sqrt{198,0952381} = 14,07463101 = 14,07$$

So, the result of the standard deviation of the pre-test is 14,07

Standard deviation of the pre-test was 14,07, it could be seen that the students' vocabulary mastery was very good, but most of the students were in fair classification.

The students' scores in the post-test

The researcher also gave a post-test to assess students' vocabulary mastery after the treatment. The data of post-test scores can be seen in the table below:

Table 2. The students' scores in the post-test

Students	Post-test of the students (X1)			
	Max Score	**Score (Xx)**	**Xx^2**	**Classification**
student 1	100	100	10000	very good
student 2	100	90	8100	very good
student 3	100	90	8100	very good
student 4	100	90	8100	very good
student 5	100	90	8100	very good
student 6	100	70	3600	Fair
student 7	100	90	8100	very good
student 8	100	50	2500	Poor
student 9	100	100	10000	very good
student 10	100	70	3600	Fair
student 11	100	90	8100	very good
student 12	100	100	10000	very good
student 13	100	90	6400	Good
student 14	100	90	6400	Good
student 15	100	100	10000	very good
1260				

Sumber : Diolah oleh peneliti

The results of the post-test, which was administered to 15 students after the treatment, showed a total score of **1260** out of the maximum possible score of 1500. The students' scores varied, ranging from the lowest score of 50 to the highest score of 100. Most of the students achieved scores in the range of 90–100, which were classified as *very good*. Specifically, several students reached the perfect score of 100, while only a few obtained lower scores, such as 50 and 70, which were categorized as *poor* and *fair*. These findings indicate that the students' vocabulary mastery

improved significantly after the treatment, as reflected in the higher distribution of scores in the *very good* category compared to the pre-test.

$$\frac{1260}{15} =$$
$$= \mathbf{87,33}$$

So, the mean score (X_y) of the post-test is **87,33**

Based on the result of the post-test, the data showed that the mean score of post- post-test was 87,33. From that analysis, it means that students' vocabulary mastery was very good after giving the treatment.

The results of the post-test, which was administered to 15 students after the treatment, showed a total score of **1260** out of the maximum possible score of 1500. The students' scores varied, ranging from the lowest score of 50 to the highest score of 100. The average score of the students was **87,33**, with a standard deviation of **13,87**, indicating that most students performed well with some variation in scores. Most of the students achieved scores in the range of 90–100, which were classified as *very good*, while a few students obtained lower scores such as 50 and 70, categorized as *poor* and *fair*. These results suggest that the students' vocabulary mastery improved significantly after the treatment.

$$s2=\frac{\sum(xi-\bar{x})^2}{n-1} = \frac{2701,22}{15-1} = \frac{2701,22}{14} = 192,94$$

$$s = \sqrt{192,94} = 13,87$$

In this pre-experimental study, a pre-test was administered to 15 students to determine their initial vocabulary mastery before the treatment. The total score obtained from the pre-test was 1120 out of a maximum possible score of 1500. The students' scores varied from 50 to 90, with an average score of 74,67 and a standard deviation of 14,07. These results indicate that before the treatment, students' vocabulary mastery was moderate, with a relatively wide distribution of scores.

After the implementation of the treatment using blended media, a post-test was administered to the same group of students. The total post-test score increased to 1260 out of 1500. The average score rose to 87,33 with a standard deviation of 13,87, showing that most students achieved higher scores in the post-test, with many students scoring between 90 and 100, categorized as *very good*. Only a few students obtained lower scores such as 50 or 70, categorized as *poor* and *fair*.

The comparison of pre-test and post-test results demonstrates an improvement in students' vocabulary mastery after the treatment. The increase in total scores, along with the higher average and slightly reduced standard deviation, suggests that the intervention was effective in enhancing students' learning outcomes.

Discussion

The results of this study indicate a noticeable improvement in students' vocabulary mastery after the implementation of blended media as a learning intervention. From the pre-test, it was observed that students' scores ranged from 50 to 90, with an average score of 74,67 and a standard deviation of 14,07. This suggests that before the treatment, students' vocabulary ability was moderate, with some students performing poorly, as reflected by the lower scores of 50 and 60. The relatively high standard deviation shows that the students' abilities were unevenly distributed, highlighting a gap in vocabulary mastery among the participants.

After the treatment, the post-test results showed a total score of 1260, an average of 87,33, and a standard deviation of 13,87. These results demonstrate that most students improved their vocabulary mastery, with many achieving high scores between 90 and 100, categorized as very good. Although the standard deviation decreased slightly, it still indicates some variation in students' performance. This improvement can be attributed to the use of blended media, which provided visual, auditory, and interactive learning experiences that helped students engage with vocabulary in a more meaningful and memorable way.

The comparison between pre-test and post-test scores clearly shows that the intervention was effective. The increase in the total score by 140 points, the higher mean, and the slight reduction in standard deviation all support the conclusion that students' vocabulary mastery improved after the treatment. This finding aligns with previous studies that suggest multimedia-assisted or blended learning methods enhance students' engagement and facilitate better retention of vocabulary.

Moreover, the use of blended media appears to accommodate different learning styles, allowing students who initially struggled to gain additional support and reinforcement, while students with higher initial scores could further consolidate their knowledge. The results suggest that such an approach can be an effective strategy for vocabulary teaching, particularly in settings where students' abilities vary significantly.

In conclusion, the discussion of pre-test and post-test data confirms that blended media as a teaching method had a positive impact on students' vocabulary learning, improving both their performance and their overall engagement in the learning process.

CONCLUSION

Based on the results of the pre-experimental study and the discussion in the previous chapter, several conclusions can be drawn regarding the effect of using blended media on students' vocabulary mastery:

1. Improvement in Students' Vocabulary Mastery: The pre-test results indicated that students' vocabulary skills were moderate, with a total score of 1120, an

average of 74,67, and a standard deviation of 14,07. After implementing the blended media intervention, the post-test results increased to a total score of 1260, an average of 87,33, and a standard deviation of 13,87. This demonstrates that the intervention had a positive impact on students' vocabulary mastery and significantly improved their performance.

2. Effectiveness of Blended Media: The results showed that the use of blended media as a teaching tool helped students better understand and retain vocabulary. Most students achieved high scores in the post-test, categorized as *very good*, indicating that the multimedia and interactive aspects of the blended media provided meaningful learning experiences that supported different learning styles.
3. Consistency and Engagement: The reduction in standard deviation from 14,07 in the pre-test to 13,87 in the post-test, though slight, indicates a more consistent level of achievement among students. The blended media approach also appeared to increase students' engagement and motivation, encouraging active participation in the learning process.
4. Support for Diverse Learners: The use of blended media accommodated students with varying initial abilities. Students who struggled initially were able to improve through interactive and supportive learning activities, while students with higher initial scores were able to consolidate and enhance their vocabulary knowledge further.
5. Overall Learning Outcomes: The combined increase in total scores, average scores, and consistent improvement across most students demonstrates that the blended media approach effectively enhanced students' vocabulary mastery and contributed to a more engaging and productive learning environment.

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