

# The impact of spacing technique on English foreign language learners' vocabulary

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Article info	ABSTRACT
<b>Keywords:</b> EFL SMP level Spacing techniques Vocabulary	This study aims to examine the effectiveness of the spacing technique in enhancing vocabulary acquisition among students. A quasi-experimental research design was employed, involving a sample of 26 eighth-grade students from SMP La Tahzan. Data were analyzed using SPSS 25, and the results indicated that the spacing technique significantly improved students' vocabulary learning outcomes. This was evidenced by the t-test results, where t-count (-5.007) exceeded t-table (-1.782), demonstrating a statistically significant difference. Furthermore, the post-test mean score (90) was substantially higher than the pre-test means score (50), confirming the positive impact of the technique. These findings suggest that spaced learning can be an effective strategy for vocabulary instruction.
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## 1. INTRODUCTION

As one of English components, vocabulary plays a significant role in a language. It is considered as an indispensable component of language learning (Nation & Webb, 2011) and it is as an important key of language proficiency (Richard and Renandya, 2002). In addition, there will be no language without vocabulary. Therefore, mastering English vocabulary is needed since vocabulary as a basis for learners in their listening, speaking, reading and writing skills. For example, an English learner will not be able to speak or write in English appropriately, understand others speaking, and comprehend the text when he or she does not have sufficient English vocabulary.

Considering the importance of mastering English vocabulary for English language learners, English teaching learning process should provide students with activities that enable students to achieve high vocabulary level. However, achieving adequate vocabulary is not an easy thing, especially for EFL learners. It is occurred because of several problems. First, the students have limited English vocabulary. It was seen from the students' result of vocabulary test when the researcher conducted teaching practice program or PPL and based on the result of interview with the teacher. It was shown that out of 30 students, only 10 students were declared to have passed because they got scores above the standard. Second, most of the students got difficulty to remember English vocabulary they learned. The students explained that they were easy to forget the English vocabularies they learned in the class. Third, it seems that the teacher does not emphasize on how to make students remember English vocabularies that they studied during teaching learning process. Based on the interview result with the English teacher when the researcher was in PPL, the English teacher did not apply certain technique to make the students' vocabularies stay longer in their memory. The teacher also stated that she has not implemented spacing technique yet in her classroom.

To make English vocabulary stay longer in students' memory, the use of spacing technique can be applied in teaching – learning vocabulary. Spacing technique refers to the phenomenon of distributed learning conditions (Bui, Ahmadian, & Hunter, 2019; Rogers, 2017). It deals with the distance between two learning session. Many previous studies showed that the use of spacing technique have positive contribution on students' vocabulary retention (Farvardin, 2019; Gossens et al., 2016; Sabel, Cepeda & Kalper, 2011).

Additionally, Nakata (2015) reported that students' vocabulary is enhanced after the implementation of spacing technique in the class.

Although many previous studies were conducted, investigating the effect of spacing input on vocabulary learning in EFL context is scarcely limited. In addition, most of the previous studies were conducted at university level. Therefore, this study is conducted in junior high school level.

## 2. METHOD

This study was a quasi-experimental method. The population of this study were the eighth-grade students of SMP La Tahzan Rangkasbitung. The number of populations and samples are 33 students which are categorized as experimental and control class. In collecting data, vocabulary test (pre and post-test) was used. In the test, the students are asked to write down the English vocabulary based on available definition. To determine the validity of instrument, content validity employed in this research and to determine reliability, Cronbach Alpha was utilized. The results showed that the instrument was reliable. The Cronbach alpha was 0.958. The data was considered reliable if the Cronbach alpha result was higher than 0.50. In addition, the data was distributed normally since the significance value is  $> 0.05$ . Furthermore, t-test was deployed to find out the effectiveness of spacing technique to be used in learning vocabulary.

## 3. RESULTS AND DISCUSSION

The data from vocabulary test revealed that experimental class achieved better than the control group. For the experimental group, the mean of pre-test score was 50 and the post-test score was 70. The post-test in experimental class shown that post-test mean score was higher than the pre-test mean score, it increased 30 after the treatment given. It means that there was an improvement after the treatment. The median of pre-test was 50 and the post-test score was 70. The modes of pre-test were 50 and the post-test 60.

Meanwhile, for control class, the mean of pre-test score was 40 and the post-test score was 39.00. The post-test in control class shown that post-test mean score was higher than the pre-test mean score, it increased 10 after the treatment given. It means that there was an improvement after the treatment. The median of pre-test was 40 and the post-test score was 40. The modes of pre-test were 40 and the post-test 40. It can be seen in the following figures.

Figure 3.1 Vocabulary test result of experimental class

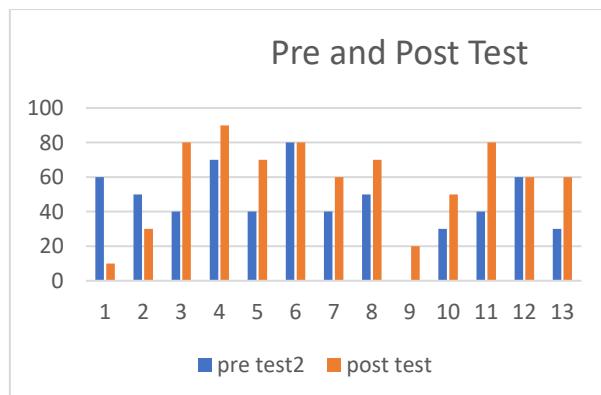
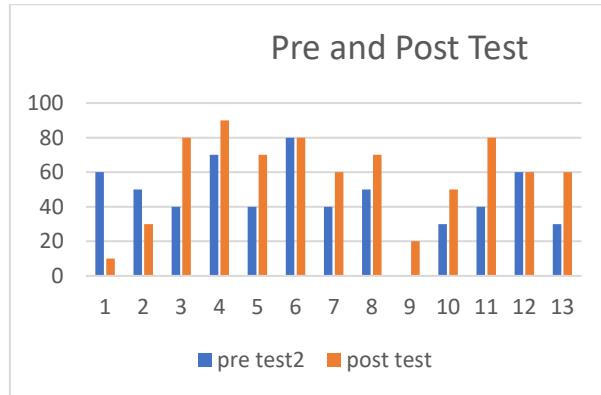


Figure 3.2 Vocabulary test result of control class



Additionally, the result of t test showed that spacing technique is effective to be used in learning vocabulary. T count for experimental class was -5.007 and t count of control class was -1.554. The T table was -1.782. If the t-count and t-table is negative,  $H_a$  is accepted when  $-t\text{-count} < -t\text{-table}$  or  $H_0$  is rejected. However,  $H_0$  is accepted when  $-t\text{-count} > -t\text{-table}$  or  $H_a$  is rejected.

This finding proves that the spacing technique is able to improve understanding and reasoning of words that have been targeted for students. This also shows that the experimental class obtained a higher score than the control class. This result is in line with Nakata - Elgort's research which stated that students were asked to memorize the target words (Nakata and Elgort, 2020).

Before treatment, students got difficulty in reasoning and understanding words during the pre-test. For the treatment, spacing technique was utilized in the experimental class and role play in the control class. However, after treatment, students' understanding on the words' meaning and usage improved. The factor that influences the success of this research is the involvement of students in learning. Student involvement consists of cognitive, behavioral and emotional involvement. Students can obtain optimal learning outcomes if students are involved in learning well and actively. This is in line with previous research which states that academic progress and student performance are positively influenced by student engagement behavior (Ladd and Dinella, 2009).

The other factor is learning motivation. Motivation is a complex part of being human that influences a person's behavior and the way they invest their time and energy. Motivation is also the basic reason for human behavior. This is in line with the statement (Guay et al.) which states that motivation is a process that begins with physiological or psychological deficiencies or needs that activates a targeted behavior or impulse on a goal or incentive. This is why motivation is important to call "the underlying reason for behavior."

Thus, spacing technique is a learning technique that is carried out repeatedly and gradually according to what the educator wants. Teaching using the spacing technique is a very promising strategy for improving reasoning and word understanding for students. By taking advantage of the long English learning time, educators can utilize their time very well and can use spacing techniques very effectively.

#### 4. CONCLUSION

Based on the study's findings and discussion, it can be concluded that the spacing technique is effective in enhancing vocabulary acquisition among eighth-grade students at SMP La Tahzan Citeras. This conclusion is supported by the t-test results, which indicate that the alternative hypothesis ( $H_a$ ) was accepted while the null hypothesis ( $H_0$ ) was rejected. The statistical analysis using SPSS 25 revealed that the t-test value (-5.007) was lower than the t-table value (-1.782), confirming a significant difference. Furthermore, students' vocabulary proficiency showed notable improvement, as evidenced by the increase in the mean score from 50 in the pre-test to 90 in the post-test. These results demonstrate the effectiveness of the spacing technique in vocabulary instruction.

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