

The Effect of Substitution Drill on Students' Vocabulary Mastery An Experimental Study at Yayasan Kubah Rahmatan Indonesia

Dery Purnama Saefudin¹, Mulyadi², Siti Nurani³

Universitas Indraprasta PGRI

[*dery.saefudin@gmail.com*](mailto:dery.saefudin@gmail.com)¹, [*misttermul73@yahoo.com*](mailto:misttermul73@yahoo.com)², [*rani_siti16@yahoo.com*](mailto:rani_siti16@yahoo.com)³

Abstract: Vocabulary mastery is an important aspect of learning English, but many students struggle to expand their vocabulary. This study aims to evaluate the effectiveness of the Substitution Drill technique in improving English vocabulary mastery among students at Yayasan Kubah Rahmatan Indonesia. The study used a quasi-experimental design with a one-group pretest-posttest approach, involving 30 students from grades 2 to 6, with varying ages and language skills. Data were collected using a vocabulary test as the main tool, given as a pretest and posttest to measure changes in vocabulary mastery. The data were analyzed using the Wilcoxon Signed Rank Test. The results showed a significant improvement in vocabulary mastery, with the average score rising from 6.20 in the pretest to 7.80 in the posttest. The Wilcoxon Signed Rank Test showed a Z value of -4.153 with a p-value of 0.000, indicating that the improvement in vocabulary mastery was statistically significant. This result confirms that the Substitution Drill technique has a positive effect on improving students' vocabulary skills.

Key words: Substitution Drill, Vocabulary Mastery, English Language Learning, Teaching Effectiveness, Teaching Methods

INTRODUCTION

Vocabulary mastery plays an important role in the process of language learning, especially for children at the elementary school age. Richard (2001) stated that vocabulary is a key component of language and one of the initial focuses of applied linguists (Yudha & Mandasari, 2021). It can be said that if someone can speak or communicate in English, it shows they have a good command of vocabulary (Haryadi, 2022). With a rich vocabulary, students can communicate more smoothly and effectively, both in speaking and writing. Learning vocabulary is a crucial part of learning a foreign language, as an increased vocabulary helps students improve their verbal fluency, writing abilities, and comprehension (Willis, 2008 as cited in Kurnia & Widyantoro, 2024). Furthermore, learning vocabulary is a significant aspect of mastering English, as it supports various language skills (Maesaroh & Sari, 2021). Additionally, vocabulary is a key asset that improves communication skills and facilitates the process of learning, and it grows as people age (Agustin & Ayu, 2021).

At the elementary level, having a strong vocabulary foundation also becomes the basis for further development in reading and writing skills. Although various vocabulary teaching methods have been applied in many schools, one of the main challenges faced is how to choose the most effective technique to help students understand and master vocabulary quickly and deeply. Vocabulary mastery is essential for understanding and using a language effectively; it refers to an individual's skill in processing and using words, influenced by personal motivation, interests, and needs (Alqahtani, 2015). Therefore, it is essential to conduct further research on effective vocabulary teaching methods for elementary school students. Vocabulary development in elementary students affects their reading, writing, and overall academic performance. The importance and impact of overexposure for early second language acquisition

have been explained. The paper addressed the question of whether language learning could become true language acquisition after what Noam Chomsky referred to as the "critical period" (Al-Harbi, 2020). This suggests that even after the critical period, learners who experience overexposure to the target language can acquire it in a way that is equivalent to their first language.

Substitution drill is a widely used technique in language teaching that focuses on practicing language structures or vocabulary by replacing elements within a given sentence pattern. Hycraft (1978, as cited in Ahmada & Komariyah, 2022) emphasizes that this method helps learners practice various aspects of language by substituting words, which enables them to familiarize themselves with different sentence constructions. Zumrah & Manurung (2021) highlight that substitution drills are particularly effective in improving students' understanding and use of tenses, conditional sentences, and auxiliary verbs such as "do" and "does." According to Crystal (2003), substitution drills enhance learners' ability to manipulate sentences by substituting items, thereby increasing their flexibility in language use. This technique allows learners to internalize sentence structures while practicing variations, making it a versatile and effective approach in language learning. Tavriyanti et al. (2024) further explain that substitution drills help students maintain a consistent pattern while exploring various sentence structures. This method is especially beneficial for students who struggle to communicate using only one specific sentence pattern, as it encourages them to expand their language abilities. Fernando (2011, as cited in Tavriyanti et al., 2024) stated that substitution drills are particularly valuable in overcoming the limitation of using repetitive sentence patterns. Moreover, students can develop a habit of practicing drills to enhance their pronunciation by focusing on their English vocabulary, ensuring that pronunciation is no longer neglected for better oral communication (Ghalebi et al., 2021). As a result, substitution drills have proven effective in enhancing language skills and serve as an essential technique in language teaching. They foster both accuracy and fluency in learners' language development, ensuring a solid foundation for further language acquisition. Finally, research has confirmed the effectiveness of substitution drills in achieving these outcomes, making them a reliable and impactful method in language learning (Mansuro, 2024; Mulyadi et al., 2024; Susanto, 2023; Wibisana et al., 2022).

Although this technique has proven beneficial in various settings, its impact on vocabulary mastery among elementary school students needs further investigation to better understand its full potential in supporting students' language development, especially in the context of primary education in Indonesia. Several studies have previously explored the effectiveness of various teaching techniques in enhancing vocabulary mastery (Kusumawardani, 2022; Siahaan et al., 2024; Situmorang et al., 2020), through context-based approaches, the use of learning media, or activity-based interactive techniques. These techniques have yielded positive results in supporting students' vocabulary development. However, despite the application and testing of numerous methods, research specifically examining the implementation of the Substitution Drill technique among elementary school students in Indonesia remains relatively limited. This research aims to fill this gap by exploring the effectiveness of the Substitution Drill technique in improving vocabulary mastery among students in grades 2 to 6 at Yayasan Kubah Rahmatan Indonesia. The uniqueness of this study lies in its focus on applying this technique to a group of students in Indonesia, which has not been widely discussed in elementary education research.

This study aims to further investigate how the Substitution Drill technique can affect vocabulary mastery among elementary school students, particularly those in grades 2 to 6 at Yayasan Kubah Rahmatan Indonesia. By focusing on a group of students with varying age ranges, the study hopes to provide a more comprehensive understanding of the effectiveness of

this technique in a broader context. Through a systematic and structured approach, this research will observe how the implementation of the Substitution Drill technique can accelerate the vocabulary learning process and examine how students can apply it in their daily communication, both orally and in writing.

Through this research, new insights are expected to be discovered regarding the most effective ways to teach vocabulary to elementary school students in Indonesia. By utilizing the Substitution Drill technique, which focuses on replacing words in sentences, students are expected not only to understand the meanings of new words but also to use these words in various more natural and applicable communication contexts. This study also aims to contribute to the development of curriculum and teaching methods at the elementary level, which can be implemented in various educational institutions in Indonesia to improve the quality of language learning. The uniqueness of this study lies in its focus on a specific demographic group and a teaching technique that has not been extensively explored in the context of primary education in Indonesia.

By examining the relationship between the Substitution Drill technique and vocabulary mastery, this research aims to make a significant contribution to the development of more effective and applicable language teaching methods. The results of this study are expected to enrich various approaches to teaching vocabulary, especially for elementary school students, by providing in-depth empirical evidence of the effectiveness of this technique. The findings can serve as a reference for educators in adapting the Substitution Drill technique according to the needs and characteristics of students, as well as offering new insights into language learning that better aligns with the Indonesian context. Additionally, this research is expected to provide practical recommendations for teachers to enhance vocabulary teaching in elementary schools.

Furthermore, this research aims to provide practical recommendations that will be useful for teachers in improving vocabulary instruction at the elementary school level. With clear and measurable research results, teachers will be able to apply the Substitution Drill technique more effectively in their classrooms, either as part of the main teaching method or as an additional technique to enrich the learning process. These recommendations will also help educators understand how to utilize this technique to better support students' language development, improve their communication skills, and facilitate a better understanding of vocabulary in everyday contexts. Ultimately, this research will add valuable knowledge to the field of language education in Indonesia, offering both theoretical and practical implications for language teachers and curriculum developers.

Overall, this research not only focuses on the academic contribution to vocabulary teaching but also seeks to bridge the practical needs in the field. By providing deeper insights into the implementation of the Substitution Drill technique, this study is expected to have a positive impact on the quality of learning in elementary schools and inspire educators to continue developing more innovative and effective teaching techniques that support students' success in mastering vocabulary.

RESEARCH METHOD

This study used a quasi-experimental design with one group pretest-posttest design without a control group. Creswell (2014) explains that quasi-experiments involve assigning participants to groups, though not randomly. This design is chosen because it allows for direct observation of changes in students' vocabulary mastery before and after being treated with the Substitution Drill teaching technique. By using this design, the study aims to identify whether

there is a significant difference in students' vocabulary mastery after they undergo a learning session focused on the Substitution Drill technique. Although there is no control group, this design remains relevant to observe the changes that occur in the experimental group that receives the same treatment.

The study involves students from Yayasan Kubah Rahmatan Indonesia, ranging from grades 2 to 6. For this study, 30 students were selected purposively as the experimental group. The group is heterogeneous, meaning it consists of students from different grade levels, specifically from grades 2 through 6. All of these students received English vocabulary lessons using the Substitution Drill technique, which aimed to improve vocabulary and speaking skills by practicing word replacement in sentences. This helps students understand new vocabulary better and encourages them to use these words in different contexts. Since there is no control group, all 30 students participated as part of the experimental group.

This study used a written test as the instrument to collect data, aiming to assess the students' vocabulary mastery before applying the Substitution Drill technique. The data collection procedure begins with the implementation of a pretest, designed to measure the students' ability to understand, recognize, and use English vocabulary in the right context. The pretest includes multiple-choice questions and gap-filling tasks, covering different levels of difficulty to evaluate the depth of the students' vocabulary knowledge.

After the pretest, the next step is the implementation of the Substitution Drill technique in vocabulary teaching. In the learning session, students engaged in a series of exercises focused on substituting words in sentences with relevant alternatives, based on different contexts. This technique allows students to learn in a more active and contextualized manner, deepening their understanding of word meanings and how these words are used in varied sentences. During these learning sessions, the researcher also observed students' classroom activities.

Once the Substitution Drill technique has been applied, the next step is the posttest to measure any changes in vocabulary mastery. The posttest followed a similar format to the pretest to ensure that the measurement is consistent and valid. Both the pretest and posttest consist of multiple-choice questions that assess students' understanding and application of vocabulary in various relevant sentences and contexts. The posttest aims to evaluate whether the Substitution Drill technique has had a positive impact on students' vocabulary mastery.

The data collected from the pretest and posttest were analyzed quantitatively to evaluate the effectiveness of the Substitution Drill technique. Data analysis involves testing the assumptions to determine whether parametric or non-parametric analysis is appropriate. First, the data were tested for normality to check if it follows a normal distribution. If the data meets the assumption of normality, parametric analysis will be used, specifically a paired t-test, to assess whether there are significant differences in vocabulary mastery before and after the treatment. If the data does not meet the normality assumption, non-parametric analysis, such as the Wilcoxon signed-rank test, will be used.

RESULTS AND DISCUSSION

Results

In this section, the researchers present the results of the study on the effectiveness of the Substitution Drill technique in vocabulary teaching to students at Yayasan Kubah Rahmatan Indonesia. The results presented include both quantitative data from the pretest and posttest, along with the statistical analysis of the data. Since the data did not meet the assumptions for parametric testing, a non-parametric test, the Wilcoxon signed-rank test was used to analyze the differences between the pretest and posttest scores.

Table 1
 Descriptive Statistics of Pretest and Posttest Scores

Descriptive Statistics					
	N	Mean	Std. Deviation	Minimum	Maximum
Pretest	30	6.20	.997	5	9
Posttest	30	7.80	.847	5	9

As indicated by the descriptive statistics, the students' average vocabulary score increased from 6.20 in the pretest to 7.80 in the posttest. The posttest scores exhibited a slightly lower variation, as shown by the smaller standard deviation (0.847), compared to the pretest, where the standard deviation was 0.997. These results suggest an improvement in students' vocabulary mastery, with a noticeable reduction in score variability after the application of the Substitution Drill technique.

Table 2
 Wilcoxon Signed Ranks Result
 Test Statistics^a

	posttest2 - pretest2
Z	-4.153 ^b
Asymp. Sig. (2-tailed)	.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

To determine whether this improvement was statistically significant, the researcher conducted the Wilcoxon Signed Rank Test, which revealed a significant difference between the pretest and posttest scores, with a Z value of -4.153 and an asymptotic significance (p-value) of 0.000. This p-value is less than 0.05, indicating that the improvement in vocabulary mastery was statistically significant.

Discussion

The results from the pretest and posttest show a significant improvement in students' vocabulary mastery after the application of the Substitution Drill technique. The average vocabulary score increased from 6.20 in the pretest to 7.80 in the posttest, suggesting that the Substitution Drill technique was effective in improving students' vocabulary comprehension. The results align with previous studies that demonstrate that teaching techniques involving word substitution exercises can help students better remember and use new vocabulary (Tika, 2022). The increase in vocabulary scores can be attributed to the interactive nature of the Substitution Drill technique, which allows students to actively practice with new vocabulary through structured exercises. By providing students the opportunity to apply vocabulary in different sentence contexts, the technique helps deepen their understanding of the words.

Statistical analysis using the Wilcoxon Signed Rank Test confirmed the significance of this improvement. The test resulted in a Z value of -4.153 and an asymptotic significance (p-

value) of 0.000, indicating that the observed difference between the pretest and posttest scores was statistically significant. The negative ranks (2 students) showed a slight decrease in posttest scores compared to pretest scores, while the positive ranks (24 students) demonstrated a clear improvement in vocabulary mastery. These findings underscore the effectiveness of the Substitution Drill technique in enhancing students' vocabulary skills.

The results of this study have important implications for vocabulary teaching practices at Yayasan Kubah Rahmatan Indonesia. The Substitution Drill technique has proven effective in improving vocabulary mastery, it strengthens previous research on substitution drill (Arief & Rohani, 2022; Terasne & Hafiz, 2022; Yusuf et al., 2023). It is recommended that this technique be integrated into the vocabulary teaching curriculum at the foundation. Long-term implementation of this technique could help students develop a strong vocabulary base and improve their overall language skills. Moreover, this technique can serve as a valuable model for vocabulary teaching in other educational settings facing similar challenges.

However, it is important to note some limitations of this study. The research was conducted over a relatively short period of couple weeks, which limits the ability to assess the long-term effects of the Substitution Drill technique. Future research should investigate the sustainability of the technique's impact over an extended period. Additionally, this study only involved one group of students at Yayasan Kubah Rahmatan Indonesia, so the results may not be generalizable to a larger or more diverse population. Future studies with a broader sample would be beneficial to verify the findings and explore the applicability of the Substitution Drill technique in different educational contexts.

CONCLUSION

Based on the results of the pretest and posttest, it can be concluded that the Substitution Drill technique significantly improved students' vocabulary mastery. The average vocabulary score increased from 6.20 (pretest) to 7.80 (posttest), with a statistically significant difference confirmed by the Wilcoxon Signed Rank Test ($Z = -4.153$, $p = 0.000$). This improvement underscores the effectiveness of the Substitution Drill technique in enhancing vocabulary skills through structured and interactive practice. The findings align with previous studies (Arief & Rohani, 2022; Terasne & Hafiz, 2022; Yusuf et al., 2023) which highlight the positive impact of substitution drills on vocabulary learning. These results suggest that integrating the Substitution Drill technique into the vocabulary teaching curriculum can help students develop a stronger vocabulary base and improve overall language proficiency. However, the study's limitations, including its short duration and single-group design, suggest the need for further research. Future studies should explore the long-term impact of this technique and its applicability to broader and more diverse populations to confirm its effectiveness in different educational settings.

REFERENCES

- Agustin, R. W., & Ayu, M. (2021). The Impact Of Using Instagram for Increasing Vocabulary and Listening Skill. *Journal of English Language Teaching and Learning*, 2(1), 1–7. <https://doi.org/10.33365/jeltl.v2i1.767>
- Ahmada, A., & Komariyah, Y. (2022). The Use Of Oral Drill Method In Teaching Speaking Students. *Jurnal Tarbiyatuna: Jurnal Kajian Pendidikan, Pemikiran Dan Pengembangan Pendidikan Islam*, 2(2), 16–33. <https://doi.org/10.30739/tarbiyatuna.v2i2.1352>

- Al-Harbi, S. S. (2020). Language Development and Acquisition in Early Childhood. *Journal of Education and Learning (EduLearn)*, 14(1), 69–73. <https://doi.org/10.11591/edulearn.v14i1.14209>
- Alqahtani, M. (2015). The Importance of Vocabulary in Language Learning and How to Be Taught. *International Journal of Teaching and Education*, III(3), 21–34. <https://doi.org/10.20472/TE.2015.3.3.002>
- Arief, F. A. W., & Rohani, I. (2022). Improving English Vocabulary Mastery Through Audio Lingual and Drill Methods for Class VII-I in English Subjects at MTs “Wali Songo” Ngabar Ponorogo. *Tarbawi Ngabar: Jurnal of Education*, 3(2), 141–155. <https://doi.org/10.55380/tarbawi.v3i2.212>
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4. ed). SAGE.
- Crystal, D. (2003). *A Dictionary of Linguistics & Phonetics* (5th ed). Blackwell Pub.
- Ghalebi, R., Sadighi, F., & Bagheri, M. S. (2021). A study of Vocabulary Learning Strategies Among High and Low Iranian English Vocabulary Learners. *Cogent Education*, 8(1), 1834933. <https://doi.org/10.1080/2331186X.2020.1834933>
- Haryadi, R. N. (2022). The Effect of Vocabulary Mastery and Learning Motivation towards Description Writing Ability. *JEdu: Journal of English Education*, 2(1), 88–94. <https://doi.org/10.30998/jedu.v2i1.6430>
- Kurnia, E. D., & Widyantoro, A. (2024). The Effectiveness of Using Repetition Drill Technique with Duolingo Application to Improve Vocabulary at Seventh Graders of MTs Al-Huda Reban: Efektivitas Penggunaan Teknik Repetition Drill dengan Aplikasi Duolingo untuk Meningkatkan Kosakata pada Siswa Kelas Tujuh MTs Al-Huda Reban. *Nusantara Journal of Education and Social Science*, 1(2), 47–54. <https://doi.org/10.69959/nujess.v1i2.46>
- Kusumawardani, D. (2022). Improving Students’ Understanding of Conditional Sentences Type 3 Using Vocabulary Substitution Drill. *Strategy : Jurnal Inovasi Strategi Dan Model Pembelajaran*, 2(3), 320–331. <https://doi.org/10.51878/strategi.v2i3.1417>
- Maesaroh, R. S., & Sari, R. (2021). The Effect of Vocabulary Mastery on Students’ Writing Skill (Research on Grade VIII Students at SMP Negeri 46 Jakarta). *JEdu: Journal of English Education*, 1(3), 160–164. <https://doi.org/10.30998/jedu.v1i3.4863>
- Mansuro, L. (2024). Effectiveness of Using Macbox Media to Improve Students’ Grammar Mastery. *International Journal of Research in Education*, 4(2), 219–229. <https://doi.org/10.26877/ijre.v4i2.427>
- Mulyadi, M., Saefudin, D., & Bakhtiar, A. (2024). Effect Of Substitution Drill Technique On Students’ English Speaking Skill: Experimental Study at the fifth grade class of SDN 06 Makasar in East Jakarta. *Journal of English Language Learning*, 8(1), 471–478. <https://doi.org/10.31949/jell.v8i1.9358>
- Siahaan, A., Setiawan, W., & Surista, A. (2024). Use of Drilling Method to Improve Students’ Vocabulary Mastery. *Jurnal Bahasa Asing*, 17(1), 29–36. <https://doi.org/10.58220/jba.v17i1.76>
- Situmorang, R., Raja, V. L., & Ginting, F. Y. A. (2020). Teaching Vocabulary by Using Substitution and Cued Response Drills Technique to The Eighth Grade Students of SMP Negeri 41 Medan. *Kairos English Language Teaching Journal*, 19–26. <https://doi.org/10.54367/kairos.v3i1.827>
- Susanto, M. A. (2023). The Effect Of Multiple-Slot Substitution Drill in Teaching Present Continuous Tense to Improve Students’ Speaking Achievement at The Eighth Grade of

- SMP IT Asy-Syadzili Pakis-Malang. *INOVATIF: Jurnal Penelitian Pendidikan, Agama, Dan Kebudayaan*, 9(1), 95–110. <https://doi.org/10.55148/inovatif.v9i1.496>
- Tavriyanti, L., Husna, H., & Saputri, S. (2024). Substitution Drills to Improve Students' Ability in Mastering Conditional Sentences at Islamic School (MAN). *Jurnal Pendidikan Tambusai*, 8(1), 1576–1584. <https://doi.org/10.31004/jptam.v8i1.12611>
- Terasne, T., & Hafiz, H. S. (2022). The Effect of Drill Technique Towards Students' Vocabulary Mastery in Learning English. *JISIP (Jurnal Ilmu Sosial Dan Pendidikan)*, 6(2). <https://doi.org/10.58258/jisip.v6i2.3144>
- Wibisana, G., Angraini, N., & Surayatika, D. (2022). Improving Students' Pronunciation By Using Drilling Technique of Seventh Grade at SMP Tri Dharma Palembang. *ULIL ALBAB: Jurnal Ilmiah Multidisiplin*, 1(12), 4420–4429. <https://doi.org/10.56799/jim.v1i12.1108>
- Yudha, H. T., & Mandasari, B. (2021). The Analysis of Game Usage for Senior High School Students to Improve Their Vocabulary Mastery. *Journal of English Language Teaching and Learning*, 2(2), 74–79. <https://doi.org/10.33365/jeltl.v2i2.1329>
- Yusuf, F., Usman, H., & Irfan, M. (2023). The Use of Drill Method to Improve Elementary School Students' Learning Outcomes in Vocabulary. *JETLEE: Journal of English Language Teaching, Linguistics, and Literature*, 3(1), 13–21. <https://doi.org/10.47766/jetlee.v3i1.1137>
- Zumrah, Z., & Manurung, K. (2021). Study on The Use of Substitution Drill Technique in Teaching Grammar. *E-Journal of ELTS (English Language Teaching Society)*, 9(3), 297–305. <https://doi.org/10.22487/elts.v9i3.1885>