

THE EFFECTIVENESS OF QUIZLET IN TEACHING VOCABULARY TO EFL STUDENTS TO ELEVENTH-GRADE STUDENTS AT SMA NEGERI 1 CIKANDE SERANG

Inti Aisyiyah¹

Universitas Bina Bangsa, Kota Serang, Indonesia
e-mail: intiaisyiyah793@gmail.com¹

Fuad Abdul Baqi²

Universitas Bina Bangsa, Kota Serang, Indonesia
e-mail: uadbaqi80@gmail.com²

Yuli Rohmiyati³

Universitas Bina Bangsa Kota Serang, Indonesia
e-mail: yuli.rohmiyati@binabangsa.ac.id³

Abstract

This study examined the effectiveness of the Quizlet application in teaching vocabulary to eleventh-grade students at SMA Negeri 1 Cikande, Indonesia. The study addressed the persistent challenge of limited vocabulary mastery in English classrooms, where traditional teaching methods often dominate and technology integration remains minimal. Using a quantitative approach with a quasi-experimental design, two classes participated: the experimental group ($n = 42$) received vocabulary instruction through Quizlet, while the control group ($n = 42$) was taught using conventional methods. Both groups completed pre-tests and post-tests to measure vocabulary knowledge, including meaning, form, and usage. Statistical analyses, such as normality, homogeneity, and independent sample t-tests, were conducted using SPSS version 30. Results showed that the experimental group's mean score increased from 54.64 to 83.57, while the control group improved from 66.43 to 75.60. Despite starting from a lower baseline, the experimental group achieved greater gains, indicating a significant difference ($p < 0.05$) between the two groups. These findings confirm the positive impact of Quizlet on students' vocabulary learning. The study concludes that Quizlet proved to be an effective and engaging tool for improving students' vocabulary mastery and recommends integrating Quizlet into English vocabulary instruction to enhance motivation and learning outcomes.

Keywords: *Digital Learning; Senior High School Students; Quizlet; Quasi-Experimental Design, Vocabulary.*

1. INTRODUCTION

English is an essential international language used in education, technology, tourism, health, and economics (Pustika, 2021). In the educational context, it enables learners to access knowledge, innovation, and information (Melati et al., 2023) and to communicate effectively across cultures (Rohmiyati & Asiah, 2024). Beyond

academic and professional purposes, English also contributes to personal growth and global awareness.

Vocabulary plays a fundamental role in language learning because it involves understanding the meaning, form, and usage of words. Without sufficient vocabulary, students cannot effectively speak, read, write, or comprehend English. Since English is a

foreign language in Indonesia (Mandasari & Oktaviani, 2018), acquiring a large vocabulary becomes a major challenge. Motivated learners tend to seek strategies to improve their word knowledge, while those with low motivation often show limited interest in learning new words (Grogan et al., 2018). Therefore, creating engaging learning environments and providing effective instructional tools are crucial to help students overcome vocabulary learning challenges.

Based on the researcher's teaching experience at SMA Negeri 1 Cikande, students face several difficulties in mastering vocabulary. Many remember the meanings of words but struggle to apply them correctly in sentences. The presence of multiple words with similar meanings further complicates vocabulary usage. In addition, English lessons often rely heavily on teacher explanations with minimal interactive activities, resulting in passive learning and reduced concentration. This monotonous approach makes it difficult for students to stay engaged and improve their word knowledge.

Fitri (2018) identifies limited vocabulary as one of the main challenges in learning English. Students who lack sufficient vocabulary struggle to express themselves and construct sentences. Similarly, Simatupang et al. (2023) found that low motivation and limited learning media contribute significantly to students' difficulties in learning English. To address these challenges, teachers must use engaging and interactive methods that foster motivation and active participation in the classroom

Technological innovations in education offer promising solutions for enhancing vocabulary learning. Fatoni and Baqi (2022) state that technology-based tools can support interactive and

personalized learning. One such tool is Quizlet, an online and mobile application that allows students to study vocabulary through digital flashcards, games, and quizzes (Sari, 2019). By offering features such as Learn, Flashcards, Match, and Test, Quizlet helps students engage in independent and varied practice, making vocabulary learning more enjoyable and effective

Fenton and Duffy (2017) highlight that Quizlet supports independent learning through varied methods and provides flexibility through its mobile version, allowing students to study anytime and anywhere. Barr (2016) adds that its visual and auditory elements help make learning more interactive and memorable. The SAMR model (Substitution, Augmentation, Modification, and Redefinition) also supports the integration of technology in education, showing that tools like Quizlet can transform learning experiences by adding new digital dimensions (Ashcroft & Imrie, 2014)

Previous studies have demonstrated the effectiveness of Quizlet in improving vocabulary learning. Arrosyid and Pradana (2021) found that students who learned vocabulary using Quizlet achieved higher retention rates than those using traditional memorization techniques. However, while Quizlet has proven effective in other contexts, its impact in Indonesian senior high schools such as SMA Negeri 1 Cikande—where technology integration remains limited—has not been thoroughly examined.

Therefore, this study aims to investigate the effectiveness of using Quizlet in teaching vocabulary to eleventh-grade students at SMA Negeri 1 Cikande. The research specifically seeks to answer the following questions:

- 1) How does the use of Quizlet affect students' vocabulary mastery?

- 2) What is the difference in vocabulary achievement between students taught with Quizlet and those taught conventionally?

This study employs a quasi-experimental design with pre-test and post-test implementation in both the experimental and control classes. It is expected to provide empirical evidence on the role of Quizlet in enhancing students' vocabulary mastery in an Indonesian EFL classroom context.

2. LITERATURE REVIEW

Vocabulary refers to the collection of words that an individual knows or uses, the entirety of words in a specific language, the terminology associated with a particular subject, or a compilation of words with their definitions, often found in books designed for learning a foreign language (Simanjuntak, 2021). In a broader sense, vocabulary includes the arrangement of words in a language, including the use, storage, and learning of words by individuals, while reflecting the relationships between words, phrases, and word categories (Tanjung & Daulay, 2022).

Vocabulary plays a crucial role not only in foreign language learning and teaching but also in a broader global context. Good vocabulary development is essential to improve writing, listening, and speaking skills. As stated by Mandasari and Oktaviani (2018), vocabulary is a fundamental component that enables learners to speak, understand, read, and write in English. In Indonesia, many students face difficulties in learning English, especially in vocabulary mastery. Having adequate vocabulary is essential for those who want to understand handwritten, spoken, or written texts in English. Moreover, strong vocabulary mastery contributes to students'

academic success because without understanding the meanings of words in a text, learners may struggle to grasp the overall context (Simanjuntak, 2021). Without sufficient vocabulary knowledge, language learners cannot fully participate in communication or comprehend texts, making vocabulary acquisition a key focus in foreign language instruction.

Despite its importance, many students still struggle with vocabulary acquisition. Grogan et al. (2018) noted that students who lack motivation are less likely to engage in learning new words. This is often caused by monotonous teaching strategies such as rote memorization and heavy reliance on textbooks, which fail to stimulate student interest. According to Fitri (2018), limited vocabulary knowledge remains one of the key obstacles in mastering English, making students unable to express themselves fluently or construct basic sentences. Simatupang et al. (2023) added that low motivation and limited media use contribute significantly to students' vocabulary learning difficulties.

In response to these challenges, educational technology has emerged as an effective alternative to support language learning. Fatoni and Baqi (2022) stated that the current condition of language education necessitates the use of technology as a solution, particularly for increasing student engagement and learning outcomes. Technology-based platforms can help students learn and memorize vocabulary more effectively. These tools include applications, websites, and software that provide features such as interactive exercises, flashcards, language games, speech recognition, and artificial intelligence integration for personalized learning experiences.

Digital tools like language learning applications, interactive e-books, and web-based instructional programs offer visual, audio, and contextual content (Ghanbari, 2021). This supports diverse learning preferences and makes vocabulary learning more engaging (Suryaratri et al., 2019). Such technological tools provide interactive and contextualized learning experiences that go beyond traditional methods.

One of the most popular tools for vocabulary learning is Quizlet, which offers features such as digital flashcards, games, and quizzes that support independent and engaging vocabulary practice. Sari (2019) affirmed that Quizlet is suitable for teaching vocabulary both online and offline due to its interactive nature. Quizlet supports multiple learning modes—Learn, Flashcards, Match, and Test—allowing students to review and practice vocabulary in various ways that enhance memory and comprehension.

According to Davie and Hilber (2015), the Quizlet mobile application functions as an effective tool to support students' vocabulary development by providing a convenient and engaging approach to learning new words. Moreover, Quizlet can enhance students' vocabulary performance, as shown by Rizky Setiawan and Wiedarti (2020), who found that learners using the platform outperformed those relying on traditional memorization methods in vocabulary assessments. Barr (2016) also highlighted that Quizlet offers several advantages, such as the ability to quickly create flashcards with images and audio, making the learning process more visual and auditory. Additionally, the platform is accessible on both computers and smartphones, which increases its convenience for learners. Quizlet automatically shuffles flashcards to help prevent rote

memorization and promote deeper learning. Furthermore, it provides multiple study modes and game-based features that accommodate different learning styles and sustain students' motivation and interest.

Previous studies have demonstrated the effectiveness of Quizlet in improving vocabulary acquisition. Arrosyid and Pradana (2021) found that students taught using Quizlet showed greater vocabulary retention than those using conventional methods. Their findings support the view that interactive media can significantly enhance language learning outcomes by offering engaging and flexible learning opportunities. However, few studies have examined Quizlet's impact in Indonesian senior high schools such as SMA Negeri 1 Cikande, where technology integration remains limited.

3. RESEARCH METHOD

3.1 Research Design

This research applied a quantitative method with a quasi-experimental design, involving a pre-test and post-test to evaluate the effectiveness of Quizlet in teaching students' vocabulary mastery. The study involved two classes: Grade XI-L as the experimental group (taught using Quizlet) and Grade XI-M as the control group (taught using conventional methods). Both classes were given the same vocabulary tests to compare learning outcomes. The Quizlet application served as the independent variable, while vocabulary mastery served as the dependent variable.

A quasi-experimental design involves selecting a comparison class that closely resembles the treatment class based on their initial characteristics before the intervention (White & Sabarwal, n.d.). A similar design was used by Çinar and Ari

(2019), who divided participants based on the use of Quizlet in vocabulary learning.

3.2 Population and Sample

The population of this study consisted of eleventh-grade students at SMA Negeri 1 Cikande during the 2024/2025 academic year. Two classes were selected through purposive sampling: Class XI-L as the experimental group and Class XI-M as the control group. Each class consisted of 42 students, resulting in a total of 84 participants. Both groups were taught by the same English teacher to ensure instructional consistency.

3.3 Research Instruments

The primary instrument used in this study was a vocabulary test designed to measure students' mastery of English vocabulary. The test consisted of 40 multiple-choice items, focusing on word meaning, form, and usage, which were adapted from the senior high school English curriculum and validated by two English language experts.

The validity of the instrument was examined through content validation by experienced English teachers, ensuring that all test items were aligned with the learning objectives. Reliability was tested using the Cronbach's Alpha formula, which produced a coefficient of 0.82, indicating high reliability.

The scoring system awarded 1 point for each correct answer and 0 for incorrect answers, resulting in a total possible score of 40 points, which was then converted to a 100-point scale for easier interpretation.

3.4 Research Procedure

The study was conducted over four weeks, with a total of eight sessions (two meetings per week, 90 minutes each). Both the experimental

and control groups followed the same lesson objectives and topics from the syllabus, focusing on vocabulary related to descriptive and narrative texts.

1) Pre-test:

At the beginning of the study, both classes were given a vocabulary pre-test to measure their initial vocabulary knowledge.

2) Treatment (Experimental Group):

The experimental group received instruction using the Quizlet application. Students were introduced to Quizlet features such as Flashcards, Learn, Match, and Test. Each session included activities where students practiced vocabulary through interactive digital flashcards, played matching games, and reviewed difficult words individually or in pairs using their smartphones.

3) Treatment (Control Group):

The control group received vocabulary instruction using traditional methods, including teacher explanations, note-taking, and paper-based exercises without the use of digital tools.

4) Post-test:

After completing the treatment, both groups were given the same vocabulary test as the post-test to assess any improvement in their vocabulary mastery.

3.5 Data Collection and Analysis

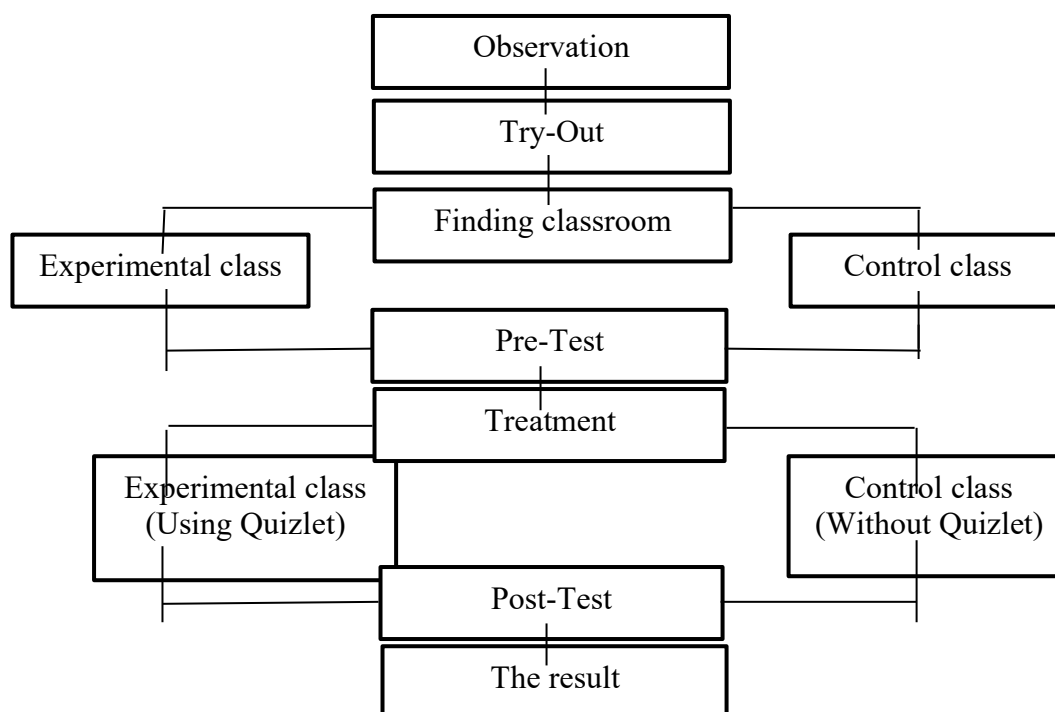
The data collected from the pre-test and post-test were analyzed using SPSS version 30. Three main statistical analyses were conducted:

- 1) Normality Test using the Kolmogorov-Smirnov and Shapiro-Wilk tests to ensure that the data were normally distributed.

- 2) Homogeneity Test using Levene's Test to check whether the variance between the two groups was equal.
- 3) Independent Sample t-Test to determine whether there was a significant difference in vocabulary mastery between the experimental and control groups after the treatment.

A significance level of 0.05 ($p < 0.05$) was used as the criterion for determining whether the difference between the two groups was statistically significant.

The following diagram shows the conceptual structure underlying this study.



4. RESULT AND DISCUSSION

This study involved 84 students, consisting of 42 in the experimental class and 42 in the control class. Students completed both a pre-test and a post-test to measure vocabulary mastery before and after the treatment. The vocabulary test consisted of 40 multiple-choice items designed to assess vocabulary knowledge, including meaning, form, and usage.

The pre-test results showed that students in both classes had relatively similar vocabulary mastery levels. However, after the implementation of Quizlet in the experimental class, post-test scores indicated a substantial improvement compared to the control class, which continued using conventional instruction

4.1 Pre-test Result

Table 4.1 Pre-Test score in Experiment Class

No	Score	Frequency	Percentage	Category
1	96-100	0	0 %	Excellent
2	86-95	2	4,76 %	Very Good
3	76-85	2	4,76 %	Good
4	66-75	5	11,90 %	Fair Good
5	56-65	16	38,09 %	Fair
6	36-55	9	21,42 %	Poor
7	0-35	8	19,04 %	Very Poor
Total		42		

In the experimental class, the pre-test results showed that the majority of students scored in the low category. Specifically, 9 students (21.42%) were in the “Poor” category with scores ranging from 36 to 55, and 8 students (19.04%) were in the “Very Poor” category with scores ranging from 0 to

35. And the other scores were 16 students (38.09%) in the “Fair” category and 5 students (11.90%) in the “Fair Good” category. Meanwhile, only 2 students (4.76%) achieved the “Very Good” category (86–95), and none reached the “Very Good” level.

Table 4.2 Pre-Test score in Control Class

No	Score	Frequency	Percentage	Category
1	96-100	0	0%	Excellent
2	86-95	6	14,28 %	Very Good
3	76-85	6	14,28 %	Good
4	66-75	9	21,42 %	Fair Good
5	56-65	8	19,04 %	Fair
6	36-55	13	30,95 %	Poor
7	0-35	0	0%	Very Poor
Total		42		

In contrast, the control class had slightly better initial performance. Most students fell into the “Poor” category (13 students or 30.95%), but none fell into the “Very Poor” category. There were 8 students (19.04%) in the “Fair” category and 9 students (21.42%) in the

“Fair Good” category. In addition, 6 students (14.28%) achieved the “Very Good” category, and another 6 students (14.28%) fell into the “Good” category. However, no students scored in the “Very Good” range (96–100).

4.2 Post-test Result

Table 4.3 Post-Test score in Experiment Class

No	Score	Frequency	Percentage	Category
1	96-100	5	11,90 %	Excellent
2	86-95	11	26,19 %	Very Good

3	76-85	14	33,33 %	Good
4	66-75	8	19,04 %	Fair Good
5	56-65	4	9,52 %	Fair
6	36-55	0	0%	Poor
7	0-35	0	0%	Very Poor
Total		42		

After the treatment using Quizlet, the experimental class showed a significant improvement. As many as 5 students (11.90%) obtained the "Excellent" category, while 11 students (26.19%) obtained a score in the "Very Good" category. The majority of 14 students (33.33%) were in the "Good"

category, while 8 students (19.04%) were in the "Fair Good" category and 4 other students (9.52%) were in the "Fair" category. In particular, no students were in the "Poor" or "Very Poor" categories, indicating a significant improvement in vocabulary mastery.

Table 4.4 Post-Test score in Control Class

No	Score	Frequency	Percentage	Category
1	96-100	1	2,38 %	Excellent
2	86-95	6	14,28 %	Very Good
3	76-85	11	26,19 %	Good
4	66-75	14	33,33 %	Fair Good
5	56-65	7	16,66 %	Fair
6	36-55	3	7,14 %	Poor
7	0-35	0	0 %	Very Poor
Total		42		

In the control class, the post-test results showed a decrease with a distribution of values that tended to be lower than the experimental class. Only 1 student (2.38%) obtained the "Excellent" category, and 6 students (14.28%) were in the "Very Good" category, the remaining 11 students (26.19%) were in the "Good" category. The majority of 14 students (33.33%) were in the "Fair Good" category, and 7 students (16.66%) were in the "Fair" category. In addition, 3 students (7.14%) were still in the "Poor" category, which shows that some students still have difficulty in mastering vocabulary.

4.3 Descriptive Statistics

Table 4.5 Descriptive Statistics of Students' Vocabulary Scores

	N	Minimum	Maximum	Mean	Std. Deviation
PreTest Experiment	42	30	90	54.64	16.871
PostTest Experiment	42	60	100	83.57	10.666
PreTest Control	42	40	95	66.43	15.861
PostTest Control	42	45	100	75.60	12.841
Valid N (listwise)	42				

The descriptive statistics show that students in the experimental class experienced a notable increase in vocabulary scores after using Quizlet, with the mean rising from 54.64 to 83.57. In contrast, the control class also showed improvement, but to a lesser extent, with the mean increasing from 66.43 to 75.60. Both groups had a reduction in standard deviation,

indicating more consistent performance post-test.

Based on the data processed using SPSS version 30 calculations, a normality test was carried out using Kolmogorov-Smirnov and Shapiro-Wilk to determine whether the data was normally distributed. The researcher used the Lilliefors test on the pre-test and post-test values in the experimental and control classes

4.4 Tests of Normality

Table 4.6 Lilliefors Significance Correction

Class	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
PreTest Experimentv	.121	42	.130	.956	42	.108
PostTest Experiment	.108	42	.200*	.957	42	.120
PreTest Control	.088	42	.200*	.961	42	.154
PostTest Control	.124	42	.101	.970	42	.333

Based on the data processed using SPSS version 30 calculations, a normality test was carried out using Kolmogorov-Smirnov and Shapiro-Wilk to determine whether the data was normally distributed. The researcher used the Lilliefors test on the pre-test and post-test values in the experimental and control classes

Based on the data, all significance (Sig.) values in both classes are above 0.05, indicating normal distribution. In the pre-test, the experimental class scored 0.130 and the control class 0.200*. For the post-test, the experimental class had 0.200* and the control class 0.101. Since all values

exceed 0.05, the data in both groups is considered normally distributed.

4.5 Test of Homogeneity of Variance

After conducting the normality test, the next step is to conduct a homogeneity test of variance using the Levene test to find out whether the data from both classes have the same variance. The homogeneity test is divided into absolute and relative categories (Mulyanti et al., 2024). Data is considered homogeneous if the calculation result is higher than 0.05. The result could be seen in the table below:

Table 4.7 Homogeneity

	Levene Statistic	df1	df2	Sig.
Based on Mean	.670	1	82	.415
Based on Median	.681	1	82	.412
Based on Median and with adjusted df	.681	1	77.784	.412
Based on trimmed mean	.753	1	82	.388

Based on data, the significance value of the Levene test is 0.670 (> 0.05), which shows that the variance between the experimental and control classes is homogeneous. Therefore, the assumption of homogeneity is met and

the analysis can be continued with an independent sample t-test to compare the results of vocabulary acquisition of the two classes.

4.6 Independent Samples Test

Table 4.8 Independent Sample Test

Result	Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
	F	Sig.	t	DF	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	0.670	0.415	3.097	82	0.001	0.003	7.976	2.576	2.852	13.100
Equal variances not assumed			3.097	79.330	0.001	0.003	7.976	2.576	2.850	13.103

Based on the results of the t-test of the number of independent samples, the significance value of Levene's Test for Equality of Variances is 0.415, which is higher than 0.05. This indicates that the variance between the experimental class and the control class is homogeneous, so that the assumption of equality of variance is met and the analysis is continued with the Equal Variances Assumed row.

Furthermore, the results of the t-test show that there is a significant difference between the average post-test scores of the experimental group and the control group, with a t value of 3.097, $df = 82$, and a significance value (two-tailed) of 0.003. Because the significance value is less than 0.05 ($p < 0.05$), it can be concluded that there is a statistically significant difference between the two groups.

The average difference in scores between the two groups is 7.976, with a 95% confidence interval ranging from

2.852 to 13.100. Because this interval does not include zero, it further strengthens that the difference is significant.

Thus, the results of this analysis indicate that the use of Quizlet in vocabulary learning has a positive and significant impact on effective students' vocabulary acquisition compared to conventional learning.

5. CONCLUSION

This study investigated the effectiveness of the Quizlet application in enhancing word mastery among eleventh-grade students at SMA Negeri 1 Cikande. The findings revealed a notable increase in students' word knowledge in the experimental class using Quizlet, compared with those in the control class taught through conventional methods. The mean post-test score in the experimental group rose from 54.64 to 83.57, while the control

group also improved, though more modestly, from 66.43 to 75.60

The results of the normality, homogeneity, and independent sample t-tests confirmed a statistically significant difference between the two groups, indicating that the integration of Quizlet effectively supported students' learning progress. These findings are consistent with earlier research (e.g., Arrosyid & Pradana, 2021; Sari, 2019), which also reported improved vocabulary outcomes through the use of interactive digital tools

In this study, Quizlet proved to be an engaging and flexible platform that promotes active participation, repeated exposure, and enjoyable learning experiences. Its accessibility—both online and offline—makes it a practical choice for English language instruction. Therefore, teachers are encouraged to integrate Quizlet or similar technologies into classroom practice to enhance students' ability to learn and retain new words more effectively.

While this research confirms Quizlet's positive impact, it was limited to a single school and a short treatment period. Future studies may extend the duration or explore its application across different contexts and language skills to gain deeper insights into its long-term effects on language learning.

REFERENCES

- Arrosyid, R., & Pradana, S. A. (2021). Philosophical Translation Analysis of Jeremy Munday's Introducing Translation Studies. *English Education: Jurnal Tadris Bahasa Inggris*, 14(1), 1–13. <https://doi.org/10.24042/ee-jtbi.v14i1.9199>
- Barr, B. (2016). Checking the Effectiveness of Quizlet as a Tool for Vocabulary Learning. *The Center for ELF Journal*, 2(1), 36–48.
- <http://libds.tamagawa.ac.jp/dspace/handle/11078/359>
- Çinar, İ., & Arı, A. (2019). The Effects of Quizlet on Secondary School Students' Vocabulary Learning and Attitudes Towards English. *Asian Journal of Instruction*, 7(2), 60–73. <https://quizlet.com/tr>
- Davie, N., & Hilber, T. (2015). Mobile-assisted language learning: Student attitudes to using smartphones to learn English vocabulary. *Proceedings of the 11th International Conference on Mobile Learning 2015, ML 2015*, 70–78.
- Fatoni, A. U., & Baqi, F. A. (2022). Literature Review of English Online Learning Using Technological Pedagogical and Content Knowledge. *Proceeding Aiselt*, 107–118. <https://jurnal.untirta.ac.id/index.php/aiselt/article/download/17138/9754>
- Fitri, N. (2018). Improving students' vocabulary mastery by using short English movie at the eleventh grade of SMA N 8 kota Jambi. *Jelt : Journal Of English Language Teaching*, 2(2), 73–80.
- Ghanbari, N., & Nowroozi, S. (2021). The practice of online assessment in an EFL context amidst COVID-19 pandemic: views from teachers. *Language Testing in Asia*, 11(1). <https://doi.org/10.1186/s40468-021-00143-4>
- Grogan, M., Lucas, M., & Takeuchi, O. (2018). Encouraging and Motivating Vocabulary Development. *The TESOL Encyclopedia of English Language Teaching*, February, 1–6.

- <https://doi.org/10.1002/9781118784235.eelt0728>
- Mandasari, B., & Oktaviani, L. (2018). English Language Learning Strategies: an Exploratory Study of Management and Engineering Students. *Premise: Journal of English Education*, 7(2), 61. <https://doi.org/10.24127/pj.v7i2.1581>
- Rizky Setiawan, M., & Wiedarti, P. (2020). The effectiveness of quizlet application towards students' motivation in learning vocabulary. *Studies in English Language and Education*, 7(1), 83–95. <https://doi.org/10.24815/siele.v7i1.15359>
- Rohmiyati, Y., & Asiah, N. (2024). Exploring motivation and improving English speaking proficiency: A literature study on role-play method. *Cendikia : Media Jurnal Ilmiah Pendidikan*, 14(5), 458–465.
- Sari, D. E. (2019). Quizlet: Aplikasi Pembelajaran Berbasis Smartphone Era Generasi Milenial. *Jurnal Pendidikan Ilmu Sosial*, 29(1), 9–15. <https://doi.org/10.23917/jpis.v29i1.8150>
- Simanjuntak, H. L. (2021). Vocabulary Learning Strategies Used by Undergraduate Students. *Scope : Journal of English Language Teaching*, 6(1), 16. <https://doi.org/10.30998/scope.v6i1.9976>
- Simatupang, G. E., Sinambela, R., Putri, A. O., Anggraini, D. F., Purba, T. M., Herman, H., Saragih, S. T., Hasibuan, R., & Siahaan, S. H. (2023). Meningkatkan Kosakata Bahasa Inggris Melalui Lagu Bahasa Inggris di Kelas 4 SD Swasta GKPS 2 Pematang Siantar. *Beru'-Beru': Jurnal Pengabdian Kepada Masyarakat*, 2(1), 16–25. <https://ojs.unsulbar.ac.id/index.php/jipm/article/view/2745>
- Suryatri, R. D., Prayitno, E. H., & Wuryani, W. (2019). The Implementation of Multi-sensory Learning at Elementary Schools in Jakarta. *JPUD - Jurna* Suryatri, R. D., Prayitno, E. H., & Wuryani, W. (2019). *The Implementation of Multi-Sensory Learning at Elementary Schools in Jakarta. JPUD - Jurnal Pendidikan Usia Dini*, 13(1), 100–113. <https://doi.org/10.21009/10.21009/Jpud.131>
- Tanjung, A. P., & Daulay, S. H. (2022). Quizlet And Vocabulary Mastery: Students' Perception. *English Language and Literature International Conference (ELLiC) Proceedings.*, 5(1), 267–276.
- White, H., & Sabarwal, S. (n.d.). Quasi-Experimental Design and Methods.