



THE EFFECT OF TRANSLATOR DICTIONARY APPLICATION ON STUDENTS' LISTENING ABILITY

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ABSTRACT

This study aimed to investigate the impact of using a translator dictionary application on the listening skills of tenth-grade students at SMA Negeri 15 Palembang. The research focused on a single experimental group of 33 students, who utilized the application during listening exercises to assist in understanding vocabulary and audio content. Data were gathered through pre- and post-treatment listening tests. The results revealed a significant improvement in the students' listening abilities after the intervention. These findings suggest that incorporating a translator dictionary application can effectively enhance students' listening skills, particularly in improving vocabulary comprehension and overall audio interpretation.

Keywords: Translator dictionary application, listening ability

1. INTRODUCTION

Listening is a crucial skill in language acquisition. Ineffective listening can lead to misunderstandings, causing conflicts and unnecessary issues (Pratiwi et al., 2024; Purwanto et al., 2022; Tran et al., 2024). As such, listening skills must be actively practiced to facilitate clear communication. A good understanding of the speaker enables appropriate responses and prevents miscommunication, while also strengthening relationships and fostering mutual respect. Furthermore, strong

listening skills enhance comprehension and critical thinking, which are vital for both academic and professional success (Davids & Rinqest, 2024; Ali, 2022; Goh & Vandergrift, 2021).

At SMA Negeri 15 Palembang, observations revealed that tenth-grade students faced significant challenges with listening skills. Several issues were identified: first, many students struggled with focus during listening tasks, largely due to limited vocabulary; second, students were not accustomed to using effective listening strategies, such as listening attentively or inferring meaning

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from context, making it difficult for them to comprehend more complex audio materials; and third, the limited use of audiovisual or digital media in lessons hindered the development of their listening skills (Bora, 2023; Bai, 2022; Jaya et al., 2025). To address these challenges, the study explored using an Indonesian-English translation application as a method to improve listening abilities.

Thus, the aim of this study is to assess the effectiveness of a translator dictionary application in enhancing students' listening skills, offering a potential solution to improve their overall listening proficiency.

2. METHODS

This study employed a quantitative pre-experimental design, specifically utilizing a one-group pretest-posttest approach (Neuman, 2019; Creswell, 2022). The pre-experimental method was chosen to measure the impact of an Indonesian-English translator application on students' listening skills. The study involved a single group that underwent both pretest and posttest assessments to evaluate the effects of the intervention (Brown & Abeywickrama, 2019; Rokhyati, 2024).

The research was conducted at SMA Negeri 15 Palembang, located at Jl. Aipda Karel Satsuit Tubun No. 10, 17 Ilir, Ilir Timur 1 District, Palembang, South Sumatera

30125, with the academic year 2024-2025. The population for this study consisted of 271 tenth-grade students across eight classes. The researcher used random sampling to select the sample, specifically choosing class X.3 from the second semester of the 2024-2025 academic year at SMA Negeri 15 Palembang. According to Miles and Huberman (2019), a sample represents a subset of a larger group, chosen to provide insights into the broader population.

The study focused on two variables: the independent variable (X) being the use of the Indonesian-English translator application, and the dependent variable (Y) being students' listening ability. To ensure the validity of the measurement instruments, the study employed content validity, which assesses whether the test covers all aspects of the concept it aims to measure. The reliability of the test was evaluated using Cronbach's alpha, yielding a value of 0.901, indicating a high level of consistency in the instrument.

The data analysis included normality tests, homogeneity tests, and hypothesis testing. The hypothesis was framed as follows:

- Ha: If the t-test value is smaller than the t-table value, the null hypothesis is accepted, and the alternative hypothesis is rejected.
- H0: If the t-test value is equal to or greater than the t-table value, the null hypothesis is rejected, and the alternative hypothesis is accepted.

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This approach ensures a reliable and valid assessment of the effectiveness of the translator dictionary application in improving students' listening skills.

3. RESULTS AND DISCUSSION

This research was conducted at SMA Negeri 15 Palembang in the academic year 2024/2025, involving class tenth grade, with class X3 (33 students) as Experiment Class. The study began on April 14, 2024, with a pre-test on the same day. The pre-test involved 33 students. The first treatment introduced the translator dictionary application, followed by the next activity.

The second treatment followed the same lesson plan, and the post-test, which was identical to the pretest. This study was conducted on 14 until 24 April 2025, with the title The Effect of Translator Dictionary Application on Students' Listening Ability at SMA Negeri 15 Palembang.

Pretest and Posttest Results

The calculation of pre-test scores in the experimental class was finished using SPSS version 26. From the *pretest* and *posttest* data above, which were given to the experimental class, the minimum, maximum, average, and standard deviation data were obtained as follows:

Table 1. Description of Students' listening Data

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	33	45	81	64.78	8.655
Posttest	33	70	100	88.33	7.900
Valid N (listwise)	33				

Source: Calculations using SPSS for Windows version 26.

Based on the table above, it can be seen that the *mean* or average *pretest* value is 68.76 and increased in the *posttest* with a mean or average result of 88.33. So it is concluded that there is an increase in the average of the *pretest* and *posttest* results.

Using SPSS 26 and the *Kolmogorov-Smirnov* test, this study collected the post-test scores of the experimental and control classes. The results of the normality test are displayed in the table below.

Table 2. Normality test results

Statistic		df	Sig.
Pretest	.116	33	.200*
Posttest	.148	33	.063

a. Lilliefors Significance Correction

Source: Calculations using SPSS for Windows version 26.

Based on the table above, the significant value (normally distributed) of the pretest is 0.200, and the significant value (normally distributed) of the posttest is 0.063. So it can be concluded that the calculation

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data of the pretest and posttest results are normally distributed.

The homogeneity test used by researchers using the Lavene Statistic t_{test} of

homogeneity of variances with the help of SPSS 25. from the calculation results can be seen in the table below.

**Table 3. Homogeneity test calculation results
Test of Homogeneity of Variance**

		Levene Statistic	df1	df2	Sig.
Listening Skill	Based on Mean	.004	1	64	.949
	Based on Median	.003	1	64	.959
	Based on Median and with adjusted Df	.003	1	60.144	.959
	Based on trimmed Mean	.001	1	64	.980

Source: Calculations using SPSS for Windows version 26.

Based on the table above, the homogeneity test for the listening skills dimension questions of students obtained a significant value of $0.949 \geq 0.05$. Thus, it can be concluded that the pretest and posttest data based on the criteria are homogeneous, which means that the pretest and posttest data have almost the same diversity or are not much different.

Hypothesis testing is used to see whether there is a correlation between research variables. In this study, hypothesis testing was carried out to determine whether the use of the translator dictionary

application has an effect on improving the listening skills of class X 3 high school students. The hypothesis test used in this study is the paired sample t-test assisted by SPSS for Windows version 26. This test is used to determine the difference between the values before being given treatment (pretest) and the values after being given treatment (posttest) in the use of the translator dictionary application.

The results of the hypothesis test of the pre-test and post-test data on listening ability are as follows:

Table 4. Paired Sample T-test

Paired Differences	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	t	df	Sig. (2-tailed)
Pair 1 (Pretest – Posttest)	-10.24723	1.78381	23.54	-27.17896	-13.200	32	.000

Source: Calculations using SPSS for Windows version 26.

Based on the calculation results in the table above, the significant value 0.000 was lower than 0.05. It means that H_a was

accepted and H_0 was rejected. In other words, does the use of a translator application through story text have an effect

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on the listening skills of tenth-grade students at SMA Negeri 15 Palembang.

4. CONCLUSION

The average pretest-posttest score showed an increase of 23.55, with a significant value (2-tailed) of 0.000, which is less than the 0.05 threshold. As a result, H₀ is rejected, and H_a is accepted. This indicates that the use of the translator dictionary application has a positive impact on improving the listening skills of tenth-grade students at SMA Negeri 15 Palembang.

The findings demonstrate that the translator dictionary application is highly effective in enhancing the listening abilities of class X students at SMA Negeri 15 Palembang. Therefore, incorporating a translator application can be regarded as an effective learning tool for boosting students' listening skills. This study also emphasizes the importance of systematically integrating technology into the language learning process to maximize its potential benefits.

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