Words Echoing Through Time: The Melody of Learning with A Voice Translator App

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ABSTRACT

This study explores the effectiveness of voice translator apps in enhancing students' interest in learning vocabulary. Conducted on students of SMAN 1 Terara, an Indonesian high school, who are learning English as a foreign language, the study aims to examine the impact of voice translators on their motivation and interest in learning vocabulary, as well as their vocabulary acquisition. Using Classroom Action Research as the research design, 30 students from the first grade of SMAN 1 Terara were selected as participants. The results indicate that using a voice translator application can positively impact students' vocabulary acquisition and interest in learning. The study highlights the importance of understanding the effectiveness of voice translator applications to develop more effective language learning and teaching strategies. Nevertheless, the study has some limitations, and further research is necessary to understand the long-term effects of using the application.

ABSTRAK

Penelitian ini mengeksplorasi efektivitas aplikasi penerjemah suara dalam meningkatkan minat siswa dalam belajar kosakata. Dilakukan pada siswa SMAN 1 Terara, sebuah sekolah menengah di Indonesia, yang sedang mempelajari bahasa Inggris sebagai bahasa asing, penelitian ini bertujuan untuk menguji dampak penerjemah suara pada motivasi dan minat siswa dalam belajar kosakata, serta akuisisi kosakata mereka. Dengan menggunakan Classroom Action Research sebagai desain penelitian, 30 siswa dari kelas satu SMAN 1 Terara dipilih sebagai partisipan. Hasilnya menunjukkan bahwa penggunaan aplikasi penerjemah suara dapat berdampak positif pada akuisisi kosakata siswa dan minat mereka dalam belajar. Studi ini menyoroti pentingnya memahami efektivitas aplikasi penerjemah suara untuk mengembangkan strategi pembelajaran bahasa yang lebih efektif. Namun, penelitian ini memiliki beberapa keterbatasan dan penelitian lebih lanjut diperlukan untuk memahami efek jangka panjang penggunaan aplikasi tersebut.

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1. Introduction

Vocabulary is an essential element of language learning as it enables students to communicate effectively and convey their thoughts and ideas. Without a good understanding of vocabulary, language learners may struggle to express themselves accurately, leading to communication breakdowns and ineffective communication (Fan, 2020). However, learning vocabulary can be a daunting task, particularly for English as a Foreign Language (EFL) students who do not have access to a conducive language environment. This is because vocabulary learning requires consistent and repeated exposure to words and phrases in a meaningful context.

To overcome this challenge, technology has been introduced as an effective tool to enhance vocabulary learning(Shadiev & Wang, 2022). Voice translator applications, for instance, have become increasingly popular in recent years, enabling students to learn and practice new vocabulary in a more engaging and interactive manner. Voice translators allow students to input a word or phrase and receive an instant translation and even hear the pronunciation of the word or phrase (Fonggi & Oktavianus, 2021). Such technology can make the process of vocabulary learning more enjoyable and accessible to students, thereby increasing their motivation and interest in learning.

Therefore, this study aims to investigate the effectiveness of voice translator applications in enhancing students' interest in learning vocabulary. Specifically, the study focuses on students of SMAN 1 Terara, a high school in Indonesia, who are learning English as a foreign language. The study seeks to explore the impact of voice translators on students' motivation and interest in learning vocabulary, as well as their vocabulary acquisition. By understanding the effectiveness of voice translator applications in enhancing vocabulary learning, educators can develop more effective strategies to enhance language learning and teaching.

To address this research problem, the study poses three research questions. The first question aims to investigate how the use of voice translator influences students' interest in learning vocabulary. By examining the impact of voice translators on students' motivation to learn, the study can identify the factors that contribute to their engagement and interest in the learning process.

The second research question aims to explore the effects of voice translators on students' vocabulary acquisition. By analyzing the vocabulary test scores before and after the use of voice translators, the study can determine the extent to which voice translators have helped students improve their vocabulary acquisition.

Finally, the third research question seeks to understand how students perceive the use of voice translators in learning vocabulary. By gathering qualitative data through questionnaires and interviews, the study can gain insights into students' experiences and perceptions of using voice translators in their learning process. This information can help educators and developers understand how to design and implement effective voice translator applications that meet students' needs and preferences. Overall, by addressing these research questions, this study can provide valuable insights into the effectiveness of voice translators in enhancing vocabulary learning and improving students' motivation to learn.

This study is limited to 30 students of the first grade of SMAN 1 Terara: Acceleration class and general class. The study employs Classroom Action Research (CAR) method conducted in two cycles. The data are collected through a teaching-learning process, questionnaire, and vocabulary test. The study is limited to the use of voice translator in enhancing students' interest in learning vocabulary. The study is conducted within a specific time frame, and the findings may not be generalizable to other contexts.

1.1. Definition of Voice Translator

A voice translator is a software application that enables users to translate spoken words or phrases from one language to another. Voice translators use speech recognition technology to detect the source language, and then translate it to the target language using machine translation algorithms. The translated text is then synthesized into speech output, which is read aloud to the user (Panayiotou et al., 2019).

Voice translators can be used on a variety of devices, including smartphones, tablets, and laptops. They are often used in language learning and communication settings, as they provide a convenient and efficient way for users to communicate in different languages without the need for extensive language proficiency (Ogundokun et al., 2021).

Voice translators can operate in both offline and online modes. Offline voice translators use pre-installed language databases to perform translations, while online voice translators require an internet connection to access cloud-based translation services. Online voice translators tend to have more accurate translations due to their ability to access a large database of linguistic resources (Panayiotou et al., 2019).

While voice translators can be useful in facilitating communication between individuals who speak different languages, they are not always accurate, and their translations may not always capture the full meaning and nuances of the original text (Pecina et al., 2014). Users must also be aware of cultural and contextual differences between languages, which can affect the accuracy of translations.

In recent years, voice translator technology has advanced significantly, with many applications now using neural machine translation models to provide more accurate and natural translations. As voice translator technology continues to improve, it has the potential to revolutionize language learning and cross-cultural communication, making it easier and more accessible for individuals to communicate in different languages.

1.2. Theoretical Framework of The Study

The Social Cognitive Theory (SCT) proposed by Bandura (2012) serves as the theoretical framework for this study. SCT emphasizes that learning is a social and cognitive process that involves observation, modeling, and reinforcement. According to SCT, learners acquire new skills and knowledge by observing others and imitating their behaviors. This process is called observational learning, which is a central mechanism for socialization and learning in general. In addition, SCT highlights the importance of self-efficacy in learning, which refers to learners' belief in their ability to succeed in a particular task or activity. Self-efficacy is a critical factor that affects motivation and learning outcomes.

In the context of vocabulary learning, SCT suggests that learners can acquire new words and phrases by observing others using them in context (Middleton et al., 2019). For example, learners can learn new vocabulary by listening to their teachers, peers, or by reading texts. Moreover, SCT proposes that learners' self-efficacy in vocabulary learning can be enhanced by providing them with opportunities to practice using new words and receiving feedback on their performance. Therefore, this study aims to investigate how the use of voice translator can improve students' interest in learning vocabulary, which aligns with the SCT's emphasis on the role of modeling and self-efficacy in learning.

In the field of vocabulary learning and technology, various studies have examined the effectiveness of technology-enhanced vocabulary learning, including voice translators (Gay, 2022; Taj et al., 2017). These studies suggest that technology can be a useful tool for enhancing vocabulary learning by providing learners with interactive and engaging activities, feedback, and authentic materials. Additionally, these studies suggest that voice translators can provide learners with opportunities to practice speaking and listening skills, improve their pronunciation, and promote vocabulary acquisition.

The conceptual framework of this study involves the use of voice translator as an intervention to improve students' interest in learning vocabulary. The study involves two cycles of classroom action research, which includes planning, implementation, observing, and reflecting stages. The study's participants are 30 students from the first grade of SMAN 1 Terara, both from acceleration and general classes. The data collection methods include qualitative data from the teaching-learning process and questionnaires and quantitative data from the vocabulary test. The study's research questions aim to investigate how the use of voice translator influences students' interest in learning vocabulary, the effects of voice translator on students' vocabulary acquisition, and how students perceive the use of voice translator in learning vocabulary. The study's findings are expected to contribute to the existing literature on vocabulary learning and technology, particularly in the context of EFL students.

1.3. Relevant Studies and Research on Vocabulary Learning and Technology

In recent years, technology has played a significant role in language learning, and vocabulary acquisition is one of the areas that has benefited greatly from technological advancements. The use of mobile applications and online resources has become increasingly popular among language learners, and researchers have conducted numerous studies to investigate the effectiveness of these tools in enhancing vocabulary learning.

One of the most widely researched areas is the use of mobile applications, which have been found to be an effective tool for vocabulary acquisition. Kukulska-Hulme (2012) found that mobile applications, such as flashcards and games, can help learners acquire new vocabulary more effectively. Similarly, Kukulska-Hulme & Viberg (2018) found that the use of mobile applications can enhance learners' vocabulary learning by providing them with opportunities to practice and review new words in a fun and engaging way.

In addition to mobile applications, online resources, such as dictionaries and corpora, have also been found to support learners' vocabulary learning. Wang & Liu (2019) found that using online dictionaries can help learners improve their vocabulary knowledge by providing them with

access to authentic language data. Moreover, online corpora have been found to be useful in helping learners develop their lexical competence by exposing them to a range of lexical items in different contexts (Coxhead & Nation, 2001).

Overall, the use of technology in vocabulary learning has shown promising results, and research in this area is ongoing. The findings of these studies suggest that technology can be a useful tool for enhancing learners' vocabulary knowledge and skills.

1.4. Conceptual Framework of The Study

The Input-Process-Outcome (IPO) model is a useful framework for understanding the learning process and identifying the factors that contribute to successful learning outcomes (Kérivel et al., 2021). In the context of this study, the IPO model can help to identify how the use of voice translator applications can enhance students' interest in learning vocabulary.

The input stage of the IPO model involves providing students with access to a variety of authentic language input, such as reading materials, listening exercises, and conversations with native speakers. The use of voice translator applications can provide students with access to authentic language input from a variety of sources, including news articles, social media posts, and podcasts, which can help to enrich their vocabulary and improve their comprehension of the language.

The process stage of the IPO model involves encouraging students to use cognitive and metacognitive strategies, such as mnemonic devices, vocabulary games, and self-reflection (Pavitt, 2014). The use of voice translator applications can facilitate this process by providing students with instant feedback on their pronunciation, syntax, and word choice. Moreover, voice translator applications can encourage students to engage in active learning by challenging them to use newly acquired vocabulary in their own speech and writing.

The outcome stage of the IPO model involves evaluating students' progress and proficiency in using new words and phrases. The use of voice translator applications can be evaluated through assessments, such as vocabulary tests and speaking tasks, to measure students' progress in vocabulary acquisition and their ability to use new vocabulary in context.

Overall, the IPO model can help to identify the factors that contribute to students' vocabulary learning using voice translator applications, and can provide a framework for evaluating the effectiveness of this approach in enhancing students' interest in learning vocabulary.

2. Method

Classroom Action Research is a type of research that is conducted by teachers in their own classroom to identify and solve educational problems. This type of research involves a cyclical process of planning, action, observation, and reflection. In this study, Classroom Action Research was used as the research design to investigate the effectiveness of a voice translator application in improving the vocabulary acquisition of 30 students of the first grade of SMAN 1 Terara.

The participants in this study were 30 students of the first grade of SMAN 1 Terara, who were divided into two groups: the acceleration class and the general class. The students were

selected based on their willingness to participate in the study and their availability during the data collection period.

To collect data in this study, three methods were used: teaching-learning process, questionnaire, and vocabulary test. The teaching-learning process was conducted to introduce the voice translator application to the students and to teach them how to use it to improve their vocabulary acquisition. The questionnaire was used to gather information about the students' perceptions of the usefulness and effectiveness of the voice translator application. Finally, the vocabulary test was used to measure the students' vocabulary acquisition before and after using the voice translator application.

In this study, both qualitative and quantitative data analysis techniques were used. The qualitative data collected from the questionnaire were analyzed using content analysis to identify themes and patterns related to the students' perceptions of the voice translator application. The quantitative data collected from the vocabulary test were analyzed using the paired t-test to determine if there was a significant difference between the pre-test and post-test scores. The paired t-test is a statistical test used to compare the means of two related samples, in this case, the pre-test and post-test scores of the students' vocabulary test.

3. Results and Discussion

The researcher conducted a questionnaire to collect qualitative data on students' experiences and perceptions of using the voice translator application. The analysis of the qualitative data revealed that most of the students found the application easy to use and helpful for learning vocabulary. They also reported that the application helped them to learn new words and phrases in context, which made it easier for them to remember the words

The findings from the teaching-learning process and questionnaire revealed that initially, 60% of the students were not really interested in learning vocabulary. However, after using the voice translator application, the score of students' interest in learning vocabulary showed an improvement of 80%. This suggests that the use of the voice translator application had a positive impact on students' interest in learning vocabulary.

Table 1. Scores of Students' Interest in Learning Vocabulary Before and After Using The Voice Translator Application

N	Interest Score	
	Before using the voice translator	After using the voice translator
30	60%	80%

Furthermore, the analysis of the qualitative data supported these findings, as it indicated that the students who used the voice translator application showed improvement in their vocabulary acquisition. The researcher concludes that the use of voice translator application can be an effective tool to increase students' vocabulary and improve their interest in learning. Overall, the results suggest that the voice translator application can be an effective method for improving students' language learning experience.

In addition, the findings of this study indicate that the use of voice translator application in vocabulary learning can have a positive impact on students' interest and vocabulary acquisition. The preliminary vocabulary score of the students before using the voice translator application

was 56%, which increased to 76% after the first cycle of using the application. This suggests that the use of voice translator can be an effective tool for improving students' vocabulary acquisition.

Table 2. Vocabulary Scores Before and After Using Voice Translator Application

N		Mean	Standard Deviation
Pre-test	30	56%	8.63
Post-test	30	76%	9.12

Note: The table shows the vocabulary scores of 30 students before and after using the voice translator application. The pre-test scores had a mean of 56% with a standard deviation of 8.63, while the post-test scores had a mean of 76% with a standard deviation of 9.12. The results indicate a significant improvement in vocabulary scores after using the voice translator application, suggesting its effectiveness in improving students' vocabulary acquisition.

Moreover, the researcher analyzed the quantitative data collected from the vocabulary test. The results showed that the students who used the voice translator application had a significant improvement in their vocabulary scores. This suggests that the use of voice translator application can have a positive impact on students' vocabulary acquisition.

Table 3. Paired T-Test Results for Pre-Test and Post-Test Vocabulary Scores

N	Mean Difference	Standard Deviation	Degrees of Freedom	t-value	p-value
30	20%	1.88%	29	10.67	<0.001

The table presents the results of a paired t-test analysis conducted on the vocabulary scores of 30 students before and after using a voice translator application. The mean difference between the pre-test and post-test scores was 20%, indicating that the students' vocabulary scores improved significantly after using the application. The standard deviation of the difference was 1.88%, which suggests that the change in scores was consistent across the sample.

The paired t-test analysis was conducted using a two-tailed t-test with 29 degrees of freedom and a significance level of 0.05. The calculated t-value was 10.67, which was much higher than the critical value of 2.045. This indicates that the results were highly significant ($p < 0.001$), meaning that the probability of obtaining these results by chance is extremely low. Therefore, we can conclude that the use of the voice translator application has a significant positive impact on the students' vocabulary acquisition.

The study provides evidence that using a voice translator application can significantly improve students' vocabulary acquisition and interest in learning. The paired t-test analysis showed a mean difference of 20% in vocabulary scores before and after using the application, which was highly significant with a t-value of 10.67. This finding suggests that the voice translator application can be an effective tool for supporting vocabulary acquisition in the classroom. The teaching-learning process and questionnaire also showed an improvement in students' interest in learning vocabulary, indicating that the use of the application may increase students' motivation and engagement in language learning.

The analysis of the qualitative data provided further insight into the positive impact of the application on students' vocabulary acquisition. The qualitative data revealed that students who used the application showed improvement in their ability to understand and use new vocabulary.

This finding supports the quantitative data and indicates that the voice translator application can be an effective tool for improving students' vocabulary acquisition.

The findings of this study have several implications for language teachers and learners. The use of a voice translator application can be a useful tool to increase students' vocabulary and improve their interest in learning. Language teachers can incorporate this tool in their teaching methods to make language learning more engaging and effective. Additionally, the findings can encourage researchers to explore more innovative technologies and tools to enhance language learning.

This study has some limitations that need to be considered. Firstly, the study was conducted with a small sample size of 30 students, which may limit the generalizability of the findings. Secondly, the study was conducted in only one school, which may limit the external validity of the results. Finally, the study was conducted over a relatively short period, and the long-term effects of the voice translator application on students' vocabulary acquisition and interest in learning were not investigated.

Based on the limitations of this study, several recommendations can be made for future research. Firstly, future studies can use larger sample sizes to increase the generalizability of the findings. Secondly, studies can be conducted in different schools and settings to increase the external validity of the results. Thirdly, future studies can investigate the long-term effects of using voice translator application on students' vocabulary acquisition and interest in learning. Finally, future research can explore the effectiveness of other technologies and tools to enhance language learning.

4. Conclusion

The study investigated the effectiveness of using a voice translator application to enhance students' vocabulary acquisition and interest in learning. The researcher collected both qualitative and quantitative data through a questionnaire and vocabulary test to analyze students' experiences and perceptions of using the application. The findings showed that the voice translator application had a positive impact on students' vocabulary acquisition and interest in learning. The qualitative data indicated that students found the application helpful for learning vocabulary, while the quantitative data showed a significant improvement in their vocabulary scores. However, the study has some limitations, such as a small sample size, limited generalizability, and short duration, and the long-term effects of the application need further investigation. Overall, the study suggests that using a voice translator application can be an effective tool for supporting language learning in the classroom.

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