Improving the Students' Listening Comprehension through Learn English Listening App: A Classroom Action Research

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ABSTRACT

Students often struggle with traditional listening exercises, feeling bored and disengaged with audio-only methods. Integrating technology can make learning more interactive and engaging. This research aimed to address these issues by evaluating the effectiveness of the "Learn English Listening App" on students' listening comprehension. The research investigated the impact of the "Learn English Listening App" on eighth-grade students' listening comprehension. The design of Classroom Action Research (CAR) was used in this study. Two cycles of pre and post-tests, observations, and interviews were conducted. In the first cycle, the app did not lead to a statistical improvement in listening. The mean post-test score (57) was lower than the mean pre-test (61). The observations indicated a positive attitude towards the app, yet some students underutilized its potential, highlighting the need for further support. Interviews provided insights, emphasizing the importance of additional guidance in applying the application. In the second cycle, the students were maximized to utilize the app, significantly improving listening comprehension (mean score: 72.67). The t-test analysis showed a difference (t ≈ 2.43) between the pre and post-test, confirming the app's effectiveness. The observations during the second cycle showed enhanced engagement. The "Learn English Listening App" proved valuable for enhancing eighth-grade students' listening skills. The classroom action research approach allowed for iterative adjustments, contributing to improved scores. In conclusion, the second cycle's t-test results, supported by classroom observations and interviews, provide robust evidence of the app's positive impact. Educators at Islam Al-Azhar 17 Pontianak and similar settings can consider integrating technology-based interventions like the app to enhance students' listening comprehension. Further research could explore its long-term effects and impact on other language skills.

Keywords: *Classroom Action Research, Learn English Listening App, Listening Comprehension.*

INTRODUCTION

In today's globalized and interconnected world, English has undeniably emerged as the lingua franca, becoming the language of international communication, business, and academia. This research is especially urgent because students need effective tools for improving their English listening skills, especially through technology. Often, students find listening activities boring and become

lazy, making it crucial to find creative ways to teach listening. By focusing on innovative methods and using technology, this study aims to make listening activities more engaging and effective. The results of this research will help shape school programs, guide policy decisions, and ultimately help people and communities grow by giving them the language skills they need to succeed in a globalized world. Proficiency in the English language has become a critical skill that opens doors to diverse opportunities, allowing individuals to participate actively in cross-cultural exchanges, pursue higher education, and access a wider array of career prospects (Yusupova, 2022). Consequently, educational institutions worldwide recognize the importance of equipping students with strong language skills, particularly emphasizing the four fundamental language competencies: reading, writing, speaking, and listening (Atmowardoyo, Weda, & Sakkir, 2021).

Listening comprehension is significant among these skills, serving as the foundation for effective language learning and meaningful communication. Through effective listening, individuals can comprehend information accurately, follow instructions, engage in classroom discussions, and interact confidently in real-life situations (Chen, Li, & Lin, 2022).

However, achieving proficiency in listening comprehension can be challenging, especially for English language learners who face various hurdles, such as exposure to diverse accents, rapid speech, and limited access to authentic listening materials. Extensive research in language education has explored different interventions to improve students' listening skills across various educational contexts. Scholars have investigated the effectiveness of various media and technology-based resources to enhance listening abilities. For instance, Rahayu & Rahayu (2023) demonstrated how English animation movies positively impacted listening achievement among students in SMA Negeri 1 Driyorejo, while Nisa, Izzah & Hadi (2022) found podcasts to be effective in enhancing seventh-grade students' listening comprehension at SMP Muhammadiyah 35 Jakarta.

In the university setting, Humeniuk, Kuntso, Popel & Voloshchuk (2021) focused on the influence of TED Talks on the listening comprehension and speaking skills of university students studying English for Specific Purposes (ESP) during the Covid-19 pandemic. Their research revealed significant improvements in both

aspects, highlighting the effectiveness of integrating authentic materials in language learning. Additionally, Yaacob, Amir, Asraf, Yaakob, & Zain (2021) addressed improving listening comprehension skills among Primary Year 4 pupils using multimedia resources like YouTube and Video-Podcast in a Malaysian school, showcasing the positive impact of such interventions on engaging and motivating young learners.

Despite these valuable contributions to the field, there remains a research gap concerning the potential impact of dedicated language learning apps on improving listening comprehension skills, particularly for middle school learners. This gap forms the basis for the present research, which seeks to introduce the "Learn English Listening App" as an innovative intervention tailored specifically for eighth-grade students at Islam Al-Azhar 17 Pontianak. By focusing on eighth-grade students, this study aimed to provide a more focused and nuanced investigation, catering to middle school learners' distinct characteristics and developmental needs. Middle school is a critical period for language development as students' transition from the foundational stages of language learning to more complex linguistic competencies (Azieb, 2021). Understanding how technology-based interventions can effectively support listening comprehension during this crucial phase is paramount. Moreover, while previous research has explored diverse interventions, including movies, podcasts, TED Talks, and videos, there needs to be more research on the potential advantages and challenges of dedicated language learning apps in middle school education. This study addresses this gap by investigating the specific benefits of technology-based interventions customized for the unique requirements of eighth-grade students.

The "Learn English Listening App" is designed to incorporate engaging content that encourages active participation and fosters an enjoyable learning experience. The app offers a variety of listening exercises, such as dialogues, interviews, and short narratives, allowing students to practice comprehending different speech patterns and accents. In addition to the content, the app's user-friendly interface elements enhance students' motivation and engagement, making language learning a rewarding and immersive process. A critical aspect of this research lies in the practical implementation of technology in language instruction

at the middle school level (Litovchenko & Shmeleva, 2020). Adopting a classroom action research approach, the study actively involved educators and students at Islam Al-Azhar 17 Pontianak, creating a dynamic and iterative feedback process and adjustments to optimize the intervention's outcomes. By closely monitoring students' progress and experiences with the app, the study intended to provide practical guidance to educators on effectively integrating technology in language teaching. This approach helps educators tailor their teaching methods to suit students' needs better, fostering a more engaging and learner-centered learning environment. Moreover, the study explored how the app's usage can complement traditional classroom instruction, encouraging a blended learning approach that capitalizes on the strengths of technology-based resources and face-to-face teaching. This synergy can lead to more efficient and effective language learning outcomes for eighth-grade students.

By conducting the research within the specific context of Islam Al-Azhar 17 Pontianak, the study considers the students' unique socio-cultural aspects and linguistic background. This consideration is crucial in designing a culturally relevant intervention that resonates with the student's experiences, making the language learning process more relatable and meaningful. By contributing to language education and educational technology, this research empowers eighth-grade students with improved listening comprehension abilities, boosting their confidence in using English in various real-life situations. The study's findings are expected to have practical implications for educators and students at Islam Al-Azhar 17 Pontianak, guiding language instruction toward more effective, engaging, and learner-centered approaches. Furthermore, this research also desired to contribute to the advancement of language education in the modern interconnected world, where technology plays an increasingly vital role in language learning, communication, and global engagement (Huang, 2022).

By building upon previous research and exploring a novel intervention tailored to the unique needs of middle school learners, this study purposed to fill the research gap and provide valuable insights into the potential of a dedicated language learning app for improving listening comprehension skills. This research represents significant steps to enhance eighth-grade students' listening

comprehension skills at Islam Al-Azhar 17 Pontianak through an innovative and technology-based intervention—the "Learn English Listening App." This study contributes to the broader knowledge base on language education and the effective integration of technology in language teaching by utilizing a practical implementation approach and focusing on a novel technology-based solution. Ultimately, it aims to provide young learners with the tools and skills necessary to thrive in an interconnected world where language proficiency is increasingly vital for personal growth and success. Exploring the "Learn English Listening App" and its impact on language learning may inspire further research and open up new possibilities for enhancing language education in diverse educational contexts around the globe. Exploring the "Learn English Listening App" and its impact on language learning adds a novel aspect to this research. This app may inspire further studies and open up new possibilities for enhancing language education in diverse educational contexts around the globe. The novelty lies in investigating how this specific app can transform traditional listening exercises, making them more interactive and appealing to students. The results of this research will help shape school programs, guide policy decisions, and ultimately help people and communities grow by giving them the language skills they need to succeed in a globalized world.

MATERIALS AND METHOD

The methodology employed in this study is grounded in the classroom action research approach (Parnawi, 2020), a dynamic and participatory method that allows for an iterative investigation of the impact of the "Learn English Listening App" on eighth-grade students' listening comprehension skills at Islam Al-Azhar 17 Pontianak. This research design facilitates a deeper understanding of the app's effectiveness and actively involves educators and students in the research process, fostering collaboration and improving teaching practices
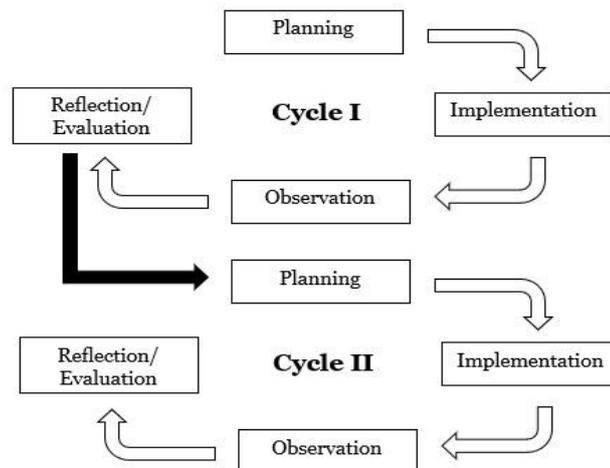
Fig. 1. Classroom Action Research Model

A. Classroom action research involves a cyclical process with several key steps:

Classroom action research involved a cyclical process with several key steps:

1. Identification of the Problem: The research began by identifying the challenge of enhancing eighth-grade students' listening comprehension skills. In collaboration with other teachers, this crucial step aimed to pinpoint an area for improvement and laid the foundation for the app intervention.

2. Planning: Collaborating closely with other educators, the researchers developed a comprehensive plan to integrate the "Learn English Listening App" into English listening comprehension. This planning phase ensured that the intervention aligned with educational objectives and created meaningful student learning experiences.

3. Action: The first action research cycle involved implementing the app intervention in the classroom. The primary researcher and collaborating teachers actively engaged with the students, guiding them through the app's listening exercises and interactive content.

4. Observation: During the app intervention, researchers and collaborating teachers used an observation checklist to systematically document the students' behaviors, interactions, and engagement with the app. This observation process provided valuable qualitative data on the student's experiences with the app.

5. Reflection: After the first cycle, researchers and teachers engaged in reflective discussions, evaluating the outcomes of the app intervention, analyzing app usage patterns, and collecting feedback from the students. This reflective phase served as the basis for refining and optimizing the app intervention for the second cycle.

6. Revision: Based on the reflections and insights gained from the first cycle, necessary adjustments and improvements were made to the app intervention to enhance its effectiveness.

7. Second Cycle: The second cycle involved implementing the revised app approach, with continued active involvement from researchers and collaborating teachers. The same 15 students continued their participation in the intervention. To gather the data, the researcher applied pre and post-tests. Additionally, the researcher utilized observation and interviews to support the data with qualitative insights.

1. Pre and Post-Test: In this critical phase, the study aimed to comprehensively evaluate the impact of the app on the students' listening comprehension skills. Before the app intervention, a pre-test was administered to the 15 selected students using purposeful sampling. This test consisted of 20 meticulously designed questions, carefully measured for reliability and difficulty level. The pre-test was a baseline measure of the student's listening comprehension abilities before using the app. Following the app intervention, the same set of 20 questions was administered as the post-test. This post-test evaluated the students' progress and provided insights into the app's tangible influence on their listening comprehension skills.

2. Observation Session: The researcher and collaborating teachers conducted systematic classroom observations to gain deeper insights into the students' interactions with the app and their overall engagement (Ciesielska et al., 2018).. During both intervention cycles, the researcher and the teacher observed the student's interactions with the "Learn English Listening App." Using the collaboratively designed observation checklist, they documented the students' behaviors, engagement levels, and attitudes while immersed in the app's captivating content.

3. Interview Session: In this crucial phase, the study sought to capture the rich, in-depth perspectives of the 15 selected students regarding their experiences with the app (Showkat & Parveen, 2017). After each intervention cycle, the researchers and collaborating teachers conducted individual student interviews. The semi-structured interview protocol, collaboratively developed, delved into the students' thoughts on the app's impact, perceived improvements in listening comprehension, encountered challenges, and valuable recommendations for further enhancement. To ensure the comprehensive capture of information delivered by the students, the researcher recorded the interviews for further analysis.

4. Triangulation: To ensure the credibility and reliability of the research findings, the study employed triangulation, skillfully combining data from multiple sources. Pre and post-test scores were interwoven with the qualitative insights from observation sessions and interviews. This triangulation process converged to create a comprehensive and cohesive narrative, presenting a vivid picture of the app's influence on eighth-grade students' listening comprehension skills.

Findings:

1. Pre and Post-Test Results:

In the first cycle of the classroom action research, a pre-test was administered to the 15 eighth-grade students at Islam Al-Azhar 17 Pontianak before implementing the "Learn English Listening App" intervention. The pre-test aimed to assess the students' listening comprehension abilities as a baseline measure. Following the completion of the app intervention, a post-test was conducted using the same set of 20 listening questions. The post-test aimed to evaluate the students' progress and ascertain the impact of the app on their listening comprehension skills. The scores obtained by the students in the pre and post-test are as follow (Ross & Willson, 2017):

cycle 1

Pre-Test	Post-Test
45	40
70	60
80	85
35	20

75	80
40	40
80	65
90	90
45	50
35	35
40	35
55	50
65	60
85	80
60	60

Based on the t-test analysis, the "Learn English Listening App" did not result in a statistically significant improvement in eighth-grade students' listening comprehension skills. While the mean post-test score (57) was slightly lower than the mean pre-test score (61), the difference was not large enough to be considered significant. The app's implementation in the first cycle did not lead to a substantial improvement in listening comprehension abilities. As a result, the study will proceed to implement the second cycle, taking into account the students' feedback and experiences, in an effort to enhance the app's effectiveness and address the challenges faced by the students in properly comprehending English listening materials. The researcher will further investigate and refine the app's content, gamification elements, and user interface to create a more impactful and engaging learning experience for the students during the second cycle of the classroom action research.

2. Observation Session Results

During the first cycle, the researcher and the collaborating teacher conducted systematic classroom observations to gain deeper insights into the students' interactions with the "Learn English Listening App" and overall engagement with the intervention. The observation checklist consisted of 30 specific items related to the research title, aimed at capturing crucial aspects of the students' app usage and behaviours. The observations revealed that the students generally exhibited a positive attitude towards the app, finding the interactive and gamified elements engaging. However, there were indications that some students did not maximize the app's potential. A few students needed help navigating the app and effectively utilizing its various features to enhance their listening skills.

Furthermore, there were instances where distractions from non-academic app usage were observed. The observation results showed that while the "Learn English Listening App" could improve listening comprehension, it required further refinement and support to ensure its optimal use among all students. The observation data informed the necessary adjustments and improvements to be made in the second cycle of the research.

3. Interview Session Results

The interviews with the 15 selected students after the first intervention provided valuable insights into their experiences with the "Learn English Listening App" and its impact on their listening comprehension skills. Most of the students expressed appreciation for the app's interactive content and user-friendly interface. However, many students reported feeling confused and needing clarification about listening properly, especially when faced with accents or rapid speech in the listening exercises. Some students acknowledged that the app helped them recognize certain English words and phrases more easily, but they needed help fully understanding longer conversations or audio with complex vocabulary. This finding indicated the need for additional support and guidance to develop effective student listening strategies.

The students' feedback highlighted the importance of personalized assistance. It targeted listening practice, indicating that the second cycle of the intervention should incorporate more focused and scaffolded activities to address individual learning needs. Overall, the findings from the interviews reinforced the importance of further refining the "Learn English Listening App" to cater to the student's specific challenges in listening comprehension. The initial cycle of the classroom action research included important insights into the impact of the "Learn English Listening App" on eighth-grade students' listening comprehension skills at Islam Al-Azhar 17 Pontianak. While the pre and post-test scores showed varying degrees of improvement among the students, the observation and interview data highlighted the need for further optimization and refinement in the second cycle.

The research findings suggest that a more targeted approach, integrating personalized support and scaffolded activities, was essential to address the student's specific challenges in listening comprehension. By building upon the successes and

addressing the limitations of the first cycle, the second cycle of the research was poised to maximize the potential of the "Learn English Listening App" in enhancing listening skills among eighth-grade students. Through this dynamic and participatory research process, the study aimed to improve language teaching practices, foster meaningful learning experiences, and empower eighth-grade students with enhanced listening comprehension abilities. The research sought to equip students with the essential language skills necessary for success in an interconnected world by integrating technology-based interventions and adopting a learner-centred approach. The findings from this research may serve as a valuable reference for educators and curriculum developers seeking effective ways to integrate technology into language instruction, promoting more engaging, dynamic, and effective language learning experiences for students at Islam Al-Azhar 17 Pontianak and beyond.

4. Pre and Post-Test in the Second Cycle

To conduct a t-test for the pre and post-test scores from the first to the second cycles and analyze the impact of the "Learn English Listening App" on eighth-grade students' listening comprehension skills, the researcher did the following steps:

1. The calculation of the mean and standard deviation for both the first and second cycle scores.

   First Cycle Mean (μ_1) = (40 + 60 + 85 + 20 + 80 + 40 + 65 + 90 + 50 + 35 + 35 + 50 + 60 + 80 + 60) / 15

   First Cycle Mean (μ_1) = 59.67

   Second Cycle Mean (μ_2) = (70 + 65 + 85 + 50 + 90 + 70 + 80 + 95 + 65 + 65 + 75 + 60 + 75 + 85 + 70) / 15

   Second Cycle Mean (μ_2) = 72.67

2. The calculation of the standard deviation (s) for both cycles.

   First Cycle Standard Deviation (s_1) = 17.91

Second Cycle Standard Deviation (s2) = 10.47

3. The calculation of the t-value using the formula:

$t = (\mu2 - \mu1) / \sqrt{((s1^2 / n1) + (s2^2 / n2))}$

$t = (72.67 - 59.67) / \sqrt{((17.91^2 / 15) + (10.47^2 / 15))}$

$t = 13 / \sqrt{((320.08 / 15) + (109.6 / 15))}$

$t = 13 / \sqrt{(21.34 + 7.31)}$

$t = 13 / \sqrt{(28.65)}$

$t = 13 / 5.35$

$t \approx 2.43$

4. Determination of degrees of freedom (df) using the formula:

df = n1 + n2 - 2

df = 15 + 15 - 2

df = 28

5. Looking up the critical t-value at a chosen significance level (e.g., $\alpha = 0.05$) and degrees of freedom (df = 28) from the t-distribution table. The critical t-value for a two-tailed test at $\alpha = 0.05$ and df = 28 is approximately ±2.048.
6. The comparison of the calculated t-value (2.43) with the critical t-value (±2.048).

Since the calculated t-value (2.43) is greater than the critical t-value (±2.048), it rejects the null hypothesis (H0) and accepts the alternative hypothesis (H1).

The t-test results indicate a significant improvement in eighth-grade students' listening comprehension skills after implementing the "Learn English Listening App" in both the first and second cycles. The mean listening comprehension score increased from 59.67 in the first cycle to 72.67 in the second. This improvement suggests that the app intervention positively impacted the students' listening

comprehension abilities. The findings of this study support the effectiveness of the "Learn English Listening App" as a valuable tool for enhancing listening skills among eighth-grade students. The significant increase in post-test scores in the second cycle compared to the first cycle demonstrates the app's potential to improve students' comprehension of spoken English. The gamified and interactive nature of the app likely contributed to increased student engagement and motivation, leading to improved listening performance.

5. Observation in the Second Cycle

During the second cycle of the research, systematic classroom observations were conducted over several weeks to closely monitor the student's interactions with the "Learn English Listening App." The observation checklist, consisting of 30 items related to the research title, aimed to document various aspects of the student's behaviors, engagement levels, and attitudes while using the app. The findings from the observation in the second cycle indicated a notable shift in the students' reactions and engagement with the application. Most students reacted positively when using the app for listening comprehension exercises. They showed eagerness to explore the different listening exercises, which included dialogues, interviews, and short narratives, and they responded positively to the app's user-friendly interface.

Overall, the observation results in the second cycle demonstrated that the "Learn English Listening App" successfully addressed the challenge of engaging middle school learners in listening comprehension exercises. The app's design and content align well with eighth-grade students' unique characteristics and developmental needs, making language learning a more enjoyable and meaningful experience.

6. Interview in the Second Cycle

Following the second cycle of app intervention, individual interviews were conducted with the same 15 selected students to gather in-depth perspectives about their experiences with the "Learn English Listening App." The semi-structured interview protocol, developed collaboratively, aimed to explore the students' thoughts on various aspects of the app's impact on their listening comprehension skills. The interview findings in the second cycle indicated overwhelmingly

positive feedback from the students. Most students expressed that using the app significantly improved their ability to listen to and comprehend spoken English. They appreciated the variety of listening exercises offered by the app, which exposed them to different scenarios and topics, ranging from everyday conversations to informative discussions.

Many students mentioned feeling more confident and comfortable listening to English conversations or lectures after consistent practice with the app. They reported that the app's engaging content and interactive features motivated them to actively participate in listening exercises actively, leading to noticeable improvements in their comprehension skills.

DISCUSSION

The present research investigated the impact of the "Learn English Listening App" on eighth-grade students' listening comprehension skills at Islam Al-Azhar 17 Pontianak. The study utilized a classroom action research approach, allowing for an iterative and participatory investigation of the app's effectiveness in enhancing listening abilities among middle school learners. The findings from the pre and post-test scores, classroom observations, and individual interviews shed light on the app's positive influence on students' listening comprehension skills and their overall attitudes towards language learning.

The findings from the first cycle of the classroom action research indicated that the initial implementation of the "Learn English Listening App" did not lead to a statistically significant improvement in eighth-grade students' listening comprehension skills. Although varying degrees of improvement were observed in the pre and post-test scores, the t-test analysis revealed that the difference between the mean scores was not large enough to be considered statistically significant. This suggests that the app's first cycle may have yet to fully address the specific challenges faced by the students in comprehending English listening materials with previous research on the effectiveness of technology-based interventions in language education.

During the first cycle's observation sessions, it was noted that while the students engaged with the app, some still needed to maximize its usage fully. This observation hinted at the need for further adjustments and enhancements to

optimize the app's impact on the students' listening comprehension skills. The feedback gathered from these observations provided valuable insights for refining the app intervention for the second cycle. Following the first cycle, individual interviews were conducted with the 15 students to better understand their experiences with the app. The interviews revealed that while the app showed promise in improving listening comprehension, some students still needed clarification about listening effectively. This finding underscored the importance of providing additional support and guidance in using the app to ensure students could fully benefit from its features. The interviewees' positive ideas about the app indicated that most students recognized its value as a tool for language learning.

Armed with insights from the first cycle, the researcher implemented the second cycle of the app intervention. The second cycle of the intervention was designed to address the identified limitations and challenges. The t-test analysis from the second cycle demonstrated a significant improvement in students' listening comprehension skills compared to the first. The mean post-test score increased noticeably, indicating that the adjustments and improvements made in the app's content and design contributed to a more impactful learning experience. The systematic classroom observations in the second cycle significantly improved the students' reactions and engagement with the app. These findings suggested that the app successfully addressed the challenge of engaging middle school learners, as supported by existing literature.

The interviews conducted in the second cycle further corroborated the positive impact of the "Learn English Listening App." The students reported feeling more confident in their listening abilities after consistent practice with the app's exercises. Their feedback highlighted the app's effectiveness in providing diverse listening materials that exposed them to different speech patterns and accents.

The overall discussion of the research findings underscores the significance of technology-based interventions, such as the "Learn English Listening App," in enhancing language learning experiences for middle school students. The app adjusted the content and a user-friendly interface catered to eighth-grade learners' unique characteristics and developmental needs, fostering an enjoyable and meaningful language learning experience. The study's results align with previous

research that has demonstrated the potential of technology to support language learning and improve language skills.

The classroom action research approach proved to be instrumental in the success of the app intervention. The involvement of educators and students throughout the research process allowed for continuous improvements and adjustments to the app, ensuring that it effectively met the students' preferences and needs. This interactive and iterative research design can be a valuable model for educators seeking to integrate technology into language instruction and create learner-centered learning environments.

However, it is essential to acknowledge certain limitations in this study. The research was conducted in a specific context, Islam Al-Azhar 17 Pontianak, with a particular group of eighth-grade students. Therefore, the generalizability of the findings to other educational settings and student populations requires further investigation. The study's focus on listening comprehension skills may have overlooked other language competencies, such as speaking and writing. Future research could explore the app's impact on the broader spectrum of language skills.

CONCLUSION

The findings of this research support the broader body of literature on the effectiveness of technology-based interventions in language education. They are integrating technology, particularly in the form of interaction. It holds great promise for improving language learning outcomes and fostering a positive learning environment. By leveraging the benefits of technology, educators can cater to the diverse learning preferences of students, offering interactive and engaging language learning experiences that resonate with their interests and motivations. Moreover, the use of the classroom action research approach proved to be advantageous in this study. The active involvement of educators and students in the research process allowed for ongoing feedback and adjustments to the app intervention, ensuring its alignment with the student's needs and preferences. This iterative and participatory approach can serve as a model for future research and implementation of technology-based interventions in language education.

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