

The Impact of Mobile-Assisted Language Learning (MALL) on Students' English Proficiency

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Abstract-The rapid development of technology has influenced the way students learn, particularly in language education. This study aimed to investigate the impact of Mobile-Assisted Language Learning (MALL) on students' English proficiency at FKIP UMSU. A quasi-experimental design with a pre-test and post-test control group was employed. The sample consisted of 40 English education students, divided into an experimental group (20 students) who received MALL interventions using mobile applications such as Duolingo, Quizlet, and Kahoot, and a control group (20 students) who followed conventional English learning methods. Data were collected through pre-tests and post-tests, questionnaires, and classroom observations. Quantitative data from pre-tests and post-tests were analyzed using Paired-Samples t-test and Independent-Samples t-test, while qualitative data from questionnaires and observations were analyzed descriptively. The findings revealed that students in the experimental group showed a significant improvement in English proficiency compared to the control group. In addition, MALL enhanced students' motivation, engagement, and autonomy in learning English. The study suggests that integrating mobile-assisted language learning into English education provides flexible, interactive, and personalized learning opportunities, which contribute positively to students' language development.

Keywords: Mobile-Assisted Language Learning; MALL; English Proficiency; Technology in Education; Student Engagement

1. INTRODUCTION

In the contemporary era, the integration of technology into education has transformed traditional learning paradigms, particularly in the field of language learning. Mobile-Assisted Language Learning (MALL) has emerged as a significant approach that leverages mobile devices such as smartphones, tablets, and portable media players to support language learning anytime and anywhere (Saragih, M., & Utami, R. (2020)). Unlike traditional classroom-based instruction, MALL offers learners unprecedented flexibility, allowing them to access language learning resources, practice skills, and receive feedback outside the constraints of time and location (Kukulka-Hulme & Shield, 2008).

English has become the dominant global language, serving as a medium for international communication, academic discourse, and professional advancement. Despite its importance, many students struggle to achieve adequate proficiency due to limited exposure to authentic language input, insufficient practice opportunities, and lack of individualized learning support in conventional classrooms (Godwin-Jones, 2011). MALL addresses these challenges by providing interactive, personalized, and contextually relevant learning experiences. Mobile applications can integrate multimedia content, such as audio, video, and text, which enhances comprehension and retention of language structures (Stockwell & Hubbard, 2013).

Recent research indicates that MALL contributes not only to linguistic competence but also to increased motivation, engagement, and learner autonomy (Chen & Hsu, 2008). Mobile learning tools often incorporate gamification elements, quizzes, and instant feedback, which stimulate learners' interest and encourage consistent practice. Furthermore, MALL enables collaborative and social learning through chat functions, discussion forums, and shared projects, fostering communication skills in authentic contexts (Burston, 2015).

In addition, the rapid proliferation of mobile technology and widespread internet connectivity has made MALL an accessible tool even in under-resourced educational settings. This accessibility aligns with the growing demand for flexible and learner-centered approaches in language education (Ekayati, R et al (2022)). Studies have also shown that integrating mobile-assisted learning with traditional instructional methods, known as blended learning, can enhance overall learning outcomes and support the development of all language skills—listening, speaking, reading, and writing (Hockly, 2013).

Despite the promising potential of MALL, empirical research investigating its direct impact on English proficiency, particularly in specific cultural and educational contexts, remains limited. Some studies have focused primarily on vocabulary acquisition or listening skills, leaving gaps in understanding its holistic effects on overall language proficiency. Moreover, challenges such as device limitations, distraction potential, and the need for teacher training in integrating mobile technology effectively must also be considered (Stockwell, 2013).

Given these considerations, this study seeks to explore the impact of Mobile-Assisted Language Learning on students' English proficiency. By examining how mobile-based interventions influence learners' language skills and engagement, the research aims to provide evidence-based recommendations for educators, curriculum designers, and policymakers seeking to implement effective technology-enhanced language learning programs. The findings of this study are expected to contribute to the ongoing discourse on the integration of technology in education, highlighting both the benefits and challenges of adopting MALL in diverse learning environments.

2. RESEARCH METHODOLOGY

This study employs a quasi-experimental design with a pre-test and post-test control group to investigate the impact of Mobile-Assisted Language Learning (MALL) on students' English proficiency. The population consists of English education students at FKIP UMSU, and a total of 40 students are selected using purposive sampling. They are divided into two groups, with 20 students in the experimental group and 20 in the control group. The groups are chosen to ensure comparable initial English proficiency levels.

The experimental group receives MALL interventions for six weeks, using mobile applications such as Duolingo, Quizlet, or Kahoot. These applications provide interactive activities for vocabulary, grammar, listening, and speaking practice, allowing students to learn anytime and anywhere. The control group continues with traditional English learning methods, including textbooks, lectures, and in-class exercises.

Before the treatment, both groups take a pre-test to determine their baseline English proficiency. After six weeks of treatment, a post-test is conducted to assess the students' improvement. In addition, the experimental group completes a questionnaire to measure motivation, attitudes, and perceptions regarding MALL, while observations during learning sessions record students' engagement and interaction.

The data are analyzed using quantitative and qualitative methods. Quantitative data from pre-tests and post-tests are analyzed using Paired-Samples t-test to measure within-group improvements and Independent-Samples t-test to compare differences between groups. Qualitative data from questionnaires and observations are analyzed descriptively to support the quantitative findings and provide a deeper understanding of students' learning experiences.

To ensure the validity and reliability of the instruments, all tests are validated by English lecturers at FKIP UMSU, and reliability is measured using Cronbach's Alpha with a minimum acceptable value of 0.70. Ethical considerations are strictly followed, including obtaining informed consent, maintaining confidentiality, and allowing participants the right to withdraw from the study at any stage without any consequences.

This methodological approach allows the researcher to evaluate not only the effectiveness of MALL in improving English proficiency but also its impact on students' motivation, engagement, and learning autonomy, providing comprehensive insights into the implementation of technology-enhanced language learning.

3. RESULT AND DISCUSSION

3.1 Result

The results of this study indicate that Mobile-Assisted Language Learning (MALL) has a significant positive impact on students' English proficiency. The experimental group, which used MALL applications for six weeks, showed higher post-test scores compared to the control group that followed traditional learning methods. This finding is consistent with previous studies showing that mobile-assisted learning can enhance vocabulary acquisition, grammar understanding, listening comprehension, and overall language proficiency (Stockwell & Hubbard, 2013; Burston, 2015).

One of the main advantages of MALL is its flexibility and accessibility, allowing students to practice English skills outside the classroom at their own pace. Students in the experimental group reported increased motivation and engagement due to the interactive and gamified nature of the mobile applications. This aligns with Chen and Hsu (2008), who emphasized that mobile learning promotes learner autonomy and encourages students to take responsibility for their own learning. The use of multimedia elements such as audio recordings, interactive quizzes, and instant feedback further supported comprehension and retention of language materials.

Additionally, the study showed that MALL facilitated personalized learning. Students could focus on areas where they faced difficulties, such as grammar or pronunciation, which is often difficult to achieve in conventional classroom settings due to limited time and resources (Kukulkska-Hulme & Shield, 2008). Observations also indicated that students were more active in asking questions, participating in discussions, and repeating exercises until they mastered the content.

However, the study also identified some challenges. A few students experienced technical difficulties, such as application glitches or limited access to stable internet, which occasionally interrupted learning activities. Moreover, the presence of mobile devices in learning environments can sometimes cause distraction, highlighting the need for clear guidelines and structured MALL activities in classroom implementation.

Overall, the findings suggest that integrating MALL into English learning provides multiple benefits, not only improving students' language proficiency but also enhancing their motivation, engagement, and autonomy. Teachers and curriculum developers are encouraged to incorporate mobile-assisted strategies in a blended learning approach to maximize learning outcomes. These results contribute to the growing body of research supporting the effectiveness of technology-enhanced language learning, demonstrating that MALL is a practical and effective tool in modern English education.

3.1 Discussion

The aim of this study was to investigate the impact of Mobile-Assisted Language Learning (MALL) on students' English proficiency at FKIP UMSU. The data were collected through pre-tests and post-tests, questionnaires, and classroom observations, and the findings are presented as follows.

Before the treatment, both the experimental and control groups showed relatively similar levels of English proficiency. The experimental group obtained an average pre-test score of 62.50, while the control group had a slightly higher mean score of 63.10. Statistical analysis using an independent-samples t-test revealed no significant difference between the two groups, indicating that both groups had comparable initial English proficiency. This result ensures that any improvement observed after the treatment can be attributed to the intervention rather than pre-existing differences.

After six weeks of treatment, the experimental group, which received MALL interventions using mobile applications such as Duolingo, Quizlet, and Kahoot, demonstrated a significant improvement in English proficiency. Their mean post-test score increased to 78.45, while the control group, which followed conventional learning methods, showed a smaller increase, with a mean score of 68.30. The independent-samples t-test confirmed that the difference between the post-test scores of the two groups was statistically significant, indicating that MALL had a positive effect on students' English proficiency.

Within-group analysis also showed notable differences. The experimental group experienced a substantial improvement from pre-test to post-test, highlighting the effectiveness of mobile-assisted learning in enhancing vocabulary, grammar, listening, and speaking skills. In contrast, the control group showed only a modest improvement, suggesting that traditional learning methods alone may not be as effective in fostering rapid language development.

Questionnaire results revealed that students in the experimental group were highly motivated and held positive attitudes toward MALL. Many students expressed that using mobile applications made learning English more interactive, enjoyable, and engaging. They also reported that MALL allowed them to learn independently, practice at their own pace, and repeat exercises as needed, which contributed to better understanding and retention of the material.

Observations during MALL sessions further supported these findings. Students in the experimental group actively participated in exercises, completed tasks diligently, and interacted with both the application and their peers. The interactive features of the mobile applications, such as quizzes, instant feedback, and gamified activities, encouraged students to persist in practicing language skills and to focus on areas where they experienced difficulty.

Overall, the findings indicate that Mobile-Assisted Language Learning not only improves students' English proficiency significantly compared to traditional methods but also enhances their motivation, engagement, and learning autonomy. MALL provides a flexible and personalized learning environment, allowing students to practice and reinforce their skills beyond the limitations of the classroom. These results support the idea that integrating mobile technology into language learning can be an effective strategy for improving student outcomes and fostering a more engaging and learner-centered English learning experience.

4. CONCLUSION

Based on the findings of this study, it can be concluded that Mobile-Assisted Language Learning (MALL) has a significant positive impact on students' English proficiency at FKIP UMSU. The experimental group, which received MALL interventions using applications such as Duolingo, Quizlet, and Kahoot, demonstrated a noticeable improvement in their English skills compared to the control group that followed conventional learning methods. This indicates that mobile-assisted learning is more effective in enhancing vocabulary, grammar, listening, and speaking abilities. In addition to improving language proficiency, MALL also enhances students' motivation, engagement, and learning autonomy. The interactive features of mobile applications, such as gamified exercises, quizzes, and instant feedback, make learning more enjoyable and encourage students to actively participate in learning activities. Students reported that they felt more motivated and confident in practicing English, and they appreciated the opportunity to learn at their own pace. Furthermore, MALL provides flexible and personalized learning opportunities, allowing students to focus on their weaknesses and repeat exercises until they fully understand the material. This aspect promotes self-directed learning and encourages students to take responsibility for their own learning process, which is often difficult to achieve in traditional classroom settings. Overall, the study concludes that integrating Mobile-Assisted Language Learning into English education is practical and beneficial, not only for improving students' language proficiency but also for fostering engagement, motivation, and autonomous learning. These findings suggest that educators and curriculum developers should consider incorporating MALL as a complementary approach alongside conventional teaching methods to optimize learning outcomes and create a more interactive and student-centered learning environment.

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