

## **Role of Mobile-Assisted Language Learning in Improving Vocabulary Mastery among EFL Students**

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### **ABSTRACT**

This study investigated the role of Mobile-Assisted Language Learning (MALL) in improving vocabulary mastery among English as a Foreign Language (EFL) students at MAN Labuhanbatu. A qualitative descriptive design was employed to explore how mobile applications support vocabulary learning in this context. Data were collected through classroom observations, semi-structured interviews with two English teachers and twenty-four Grade XI students, and document analysis of lesson plans and student task results. Vocabulary mastery was measured through pre-test and post-test scores over a six-week period of MALL integration using applications such as Quizlet and Duolingo. The findings indicated that MALL enhanced students' vocabulary acquisition by providing greater exposure to target words, interactive learning activities, and personalized practice opportunities. The average vocabulary score increased from 65.42 in the pre-test to 80.58 in the post-test, with notable improvements in word meaning recognition, spelling accuracy, and contextual usage in writing. Students reported higher motivation and engagement, while teachers noted more active participation during lessons. However, challenges such as limited internet access, inconsistent task completion, and passive engagement with applications were also identified. It can be concluded that MALL serves as an effective supplementary tool for vocabulary instruction in the madrasah context, provided it is integrated into structured learning activities and supported by consistent teacher guidance. The study recommends further research on the long-term effects of MALL and its application in other areas of language learning.

**Keywords:** Mobile-Assisted Language Learning, vocabulary mastery, EFL, madrasah, MAN Labuhanbatu

## INTRODUCTION

In recent years, the integration of technology into English as a Foreign Language (EFL) learning has become a common trend in various educational settings (Ghavifekr et al., 2014; Pasaribu, Salmiah, et al., 2023; Pasaribu et al., 2024). Among the many approaches, Mobile-Assisted Language Learning (MALL) has gained prominence due to its flexibility, accessibility, and potential to provide learners with continuous exposure to the target language. At MAN Labuhanbatu, the use of smartphones and mobile applications such as Quizlet, Duolingo, and Memrise has become increasingly common among students, (ALTENBERG, 2010; Ellitan, 2009; Mentari Hakim et al., 2024). These tools offer opportunities for vocabulary enrichment through interactive exercises, spaced repetition systems, and multimedia input. However, classroom observations reveal that many students still face limitations in vocabulary mastery, which in turn affects their reading comprehension, writing fluency, and speaking accuracy. This condition raises concerns regarding whether the potential of MALL has been fully optimized to support students' vocabulary development in this context. (Amaliah et al., 2024; Pasaribu, Dauly, et al., 2023; Zhang et al., 2025)

Although MALL has been widely recognized as an effective medium for vocabulary acquisition, existing research has tended to focus on higher education institutions or urban schools with strong technological infrastructure. Studies in rural or semi-urban areas, particularly in Indonesian madrasah contexts, remain limited. The unique characteristics of MAN Labuhanbatu, where academic objectives are combined with religious values, create a distinct learning environment that may influence the way MALL is applied and perceived by students. Furthermore, challenges such as varying levels of internet access, differences in digital literacy, and the absence of structured mobile-based learning strategies present potential obstacles that have not been adequately addressed in the literature. (Hussain, n.d.; Nunan, 1988; Rahis Pasaribu, 2023)

Previous studies have demonstrated promising outcomes from the use of MALL. Burston (2015) highlighted its capacity to offer personalized and contextualized vocabulary learning experiences that support long-term retention. Zou and Li (2015) found that mobile applications enhanced learners' motivation and engagement with vocabulary tasks. In the Indonesian context, Mahdi (2018) reported that the integration of mobile tools into vocabulary lessons significantly improved students' test scores. However, Ismail and Tarmizi (2020) cautioned that without proper teacher guidance, MALL might lead to passive learning patterns, where vocabulary is memorized

but not actively used in communication. These findings underscore the importance of examining not only the effectiveness of MALL in enhancing vocabulary mastery but also the contextual factors that influence its success.

In light of these considerations, this study seeks to investigate the role of Mobile-Assisted Language Learning in improving vocabulary mastery among EFL students at MAN Labuhanbatu. Specifically, it aims to explore how MALL is currently utilized in vocabulary instruction, to assess its impact on students' vocabulary performance, and to identify the challenges and opportunities encountered in its implementation. The results are expected to contribute to a better understanding of how mobile technologies can be effectively harnessed for language learning in the madrasah context.

## **METHODS**

This study was conducted using a qualitative descriptive design to gain an in-depth understanding of the role of Mobile-Assisted Language Learning (MALL) in improving vocabulary mastery among EFL students at MAN Labuhanbatu. The research was carried out over a two-month period during the 2025 academic year. The qualitative approach was chosen to allow the collection of rich and detailed data on how MALL is applied in the classroom, the students' perceptions of its usefulness, and the challenges faced during its implementation. (Miles et al., 2014)

The participants consisted of English teachers and students from Grade XI, selected through purposive sampling based on their active use of mobile applications in learning English. A total of two English teachers and twenty-four students were involved in the study. The teachers were selected due to their experience in integrating mobile technology into vocabulary instruction, while the students were chosen for their regular use of mobile applications such as Quizlet, Duolingo, and Memrise in their learning process.

Data were collected through three primary methods: classroom observations, semi-structured interviews, and document analysis. Observations were conducted to examine how MALL activities were implemented in vocabulary learning sessions, focusing on the interaction between teachers, students, and mobile tools. Semi-structured interviews with teachers and students were used to explore their experiences, perceptions, and opinions regarding the use

of MALL. Document analysis included reviewing lesson plans, teaching materials, and students' vocabulary task results to identify patterns of application and learning outcomes.

The data obtained were analyzed through thematic analysis. First, all collected data were transcribed and organized systematically. Second, coding was conducted to identify recurring themes and categories, such as MALL integration strategies, vocabulary learning outcomes, and implementation challenges. Finally, the findings were interpreted in relation to existing literature and the specific educational context of MAN Labuhanbatu. To ensure the validity of the data, triangulation was applied by comparing the results from observations, interviews, and document analysis. Member checking was also conducted by sharing preliminary findings with participants to confirm accuracy and credibility.

## **FINDINGS AND DISCUSSION**

### **Findings**

The findings of this study revealed that Mobile-Assisted Language Learning (MALL) was integrated into vocabulary instruction at MAN Labuhanbatu through various mobile applications, with Quizlet and Duolingo being the most frequently used. Classroom observations indicated that these tools were employed both during English lessons and as supplementary learning resources outside the classroom. Teachers typically introduced target vocabulary through conventional instruction before assigning students to practice using the mobile applications, which provided interactive exercises, games, and spaced repetition features.

Interviews with students showed that the use of mobile applications increased their motivation to learn new vocabulary. Many students reported that the audio-visual features of MALL tools helped them understand pronunciation and contextual usage more effectively.

Document analysis of students' vocabulary task results indicated a noticeable improvement in vocabulary mastery over the observation period. As shown in **Table 1**, the mean vocabulary score of the students increased from 65.42 in the pre-test to 80.58 in the post-test after six weeks of MALL integration. The improvement was most notable in spelling accuracy and contextual usage in writing tasks.

**Table 1. Vocabulary Score Improvements of Students**

<b>Indicator</b>	<b>Pre-Test Mean</b>	<b>Post-Test Mean</b>	<b>Improvement (%)</b>
Word Meaning Recognition	68.33	83.75	+22.6
Spelling Accuracy	63.75	80.42	+26.1
Contextual Usage in Writing	64.17	77.58	+20.9
<b>Overall Score</b>	<b>65.42</b>	<b>80.58</b>	<b>+23.1</b>

However, several challenges were identified. Teachers reported difficulties in monitoring students' independent learning progress outside the classroom. Limited internet access and inconsistent student discipline in completing app-based tasks also hindered the effectiveness of MALL. In addition, some students admitted to using the applications passively—merely clicking through exercises without fully engaging in the learning process.

## **Discussion**

This study demonstrated that Mobile-Assisted Language Learning (MALL) plays a significant role in improving vocabulary mastery among EFL students at MAN Labuhanbatu. The integration of mobile applications such as Quizlet and Duolingo into vocabulary instruction provided students with greater exposure to target words, interactive practice opportunities, and personalized learning experiences. The findings revealed a substantial improvement in students' vocabulary scores, particularly in word meaning recognition, spelling accuracy, and contextual usage in writing. The positive impact of MALL was supported by students' increased motivation and engagement in vocabulary learning. However, the effectiveness of its implementation was influenced by several challenges, including limited internet access, difficulties in monitoring independent learning, and the tendency of some students to engage with the applications passively. These factors highlight the importance of structured guidance, teacher monitoring, and strategies that encourage active participation to ensure optimal learning outcomes. It can be concluded that MALL has strong potential as a complementary approach to conventional vocabulary instruction in the madrasah context. To maximize its benefits, teachers should design structured MALL-based

activities, integrate them into lesson plans, and ensure alignment with both academic objectives and the religious values of the institution. Further research is recommended to explore long-term effects of MALL on language skills beyond vocabulary, as well as its integration with collaborative and project-based learning strategies.

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