

# THE INTEGRATION OF MOBILE-ASSISTED LANGUAGE LEARNING (MALL) WITH PEER TUTORING METHODS TO ENHANCE MOTIVATION AND ENGAGEMENT AMONG MANAGEMENT STUDENTS

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This study investigates the impact of integrating Mobile-Assisted Language Learning (MALL) applications with peer tutoring on student engagement, motivation, and learning outcomes in English language Teaching and learning. Utilizing a mixed-methods approach, the research involved pre- and post-intervention surveys, semi-structured interviews, and systematic observations. Quantitative data revealed significant improvements in students' engagement and motivation, with average scores increasing from 2.0 to 3.9 post-intervention. The standard deviation for engagement decreased from 0.7 to 0.5, indicating more consistent student responses. The qualitative analysis provided deeper insights, highlighting that students found MALL applications like Quizlet and YouTube particularly engaging and effective for learning. The thematic analysis of interviews underscored the benefits of peer tutoring in fostering a supportive learning environment, enhancing both collaborative and individual learning experiences. Excerpts from student interviews revealed increased interest and motivation, with students appreciating the flexibility and interactivity of the applications. These findings align with Vygotsky's theory of social constructivism, emphasizing the role of social interaction in learning. The study concludes that the integration of MALL with peer tutoring not only improves student engagement and motivation but also contributes to better language learning outcomes. This has important implications for educational practices and policies, suggesting that incorporating technology and collaborative learning strategies can enhance language education. Future research should explore long-term effects and scalability of such interventions

**Keywords:** *Mobile-Assisted Language Learning; peer tutoring; student engagement; motivation; English language education.*

## INTRODUCTION

English language learning is indispensable for management students due to the increasing need for effective communication within the context of a globally integrated business environment (Bekteshi & Xhaferi, 2020; Chibi, 2018; Guihang & Miao, 2019; Tao & Gao, 2018; Maruf & Helingo, 2022). Despite its importance, numerous management students struggle to maintain high

levels of motivation and engagement in their English language studies (Bekteshi & Xhaferi, 2020; Simbolon, 2021; Maruf et al., 2021). Empirical evidence indicates that students frequently find traditional teaching methodologies unengaging and misaligned with their actual business requirements (DiYanni & Borst, 2020; Gatti et al., 2019; Guihang & Miao, 2019; Seli, 2023). Additionally, the use of conventional and

less interactive instructional media often leads to boredom and a lack of challenge (Acuña & Blacklock, 2022; Franklin & Harrington, 2019; Harper et al., 2019; Lingnau, 2019), thereby hindering their progress in acquiring the essential language skills required for future career success.

This issue extends beyond motivation, impacting students' active engagement in the learning process. Many educators still rely on lecture-based and passive learning methods, resulting in low levels of class participation and interaction (Kay et al., 2019; Opdecam & Everaert, 2019; Zeng et al., 2020; Maruf & Anjely, 2020; Purwantoro et al., 2021). Consequently, students often become passive listeners rather than active participants in discussions or learning activities (Maruf et al., 2023; Jakobsen & Daniel, 2019; Opdecam & Everaert, 2019; Ssemugenyi, 2023). This is evident from the minimal levels of participation in class discussions and the lack of initiative shown by students in completing English-based assignments or projects. These conditions underscore the urgent need for more innovative and effective teaching approaches to stimulate students' interest and engagement in English language learning.

A promising solution to these challenges is the integration of Mobile-assisted Language Learning (MALL) into peer tutoring methods. MALL provides a flexible learning platform accessible from anywhere (Dağdelen et al., 2020; Nugrahini, 2019; Octavia et al., 2019; Maruf et al., 2023), while peer tutoring leverages the dynamics of peer interaction (Arco-Tirado et al., 2019; Gelmez & Arkan, 2022; Olulowo et al., 2020; Saunders et al., 2020; Ullah et al., 2018; Gutiérrez-colón et al., 2020). This combination has the potential to significantly enhance student motivation and engagement in English language learning. Therefore, this study aims to evaluate two crucial aspects of integrating MALL into peer tutoring methods for English language learning among management students. Firstly, the study assessed the effectiveness of integrating MALL into peer tutoring methods to enhance management students' motivation in learning English. Motivation proved to be a key factor in sustainable and quality learning (Fachrureza & Suryadana, 2019; Adrianto et al., 2020; Amores-Valencia et al., 2022; Vu et al., 2022; Alamri et al., 2020). By evaluating the extent to which the integration of MALL into peer tutoring boosted student motivation, this research provided valuable insights into the potential of this

approach to stimulate interest and active participation in English language learning. Secondly, the study measured the level of student engagement in English language learning following the implementation of MALL integration into peer tutoring methods. Student engagement emerged as a critical indicator of learning effectiveness (Alioon & Delialioğlu, 2019; Bedi, 2023; Chiu, 2022; Zheng & Yu, 2018), reflecting the degree of interaction (Baanqud et al., 2020; Prasetyawati & Ardi, 2020; Yu et al., 2019, 2020), dedication, and emotional investment in the learning process (Maruf, 2023; Franklin & Harrington, 2019). By understanding how MALL integration into peer tutoring enhanced student engagement, this research offered practical insights into the impact of this approach in the context of English language learning for management students.

Previous studies have delved into a variety of strategies aimed at improving English language learning among management students, each shedding light on different aspects of educational technology and pedagogical methods. A research conducted by Jeong (2022), titled "Facilitating Sustainable Self-Directed Learning Experience with the Use of Mobile-Assisted Language Learning," emphasizes the role of online platforms and mobile applications in fostering self-directed learning. Their study highlights how MALL can facilitate personalized learning experiences by providing students with flexible access to learning materials, enabling them to engage with content at their own pace and according to their individual learning needs. This approach not only supports learners in taking charge of their educational journey but also encourages autonomous learning habits that are crucial for lifelong language acquisition.

In a similar vein, Zhang et al., (2021), "Language Learners' Enjoyment and Emotion Regulation in Online Collaborative Learning," investigates the impact of enjoyment and emotion regulation on learners engaged in online collaborative environments. Their research reveals that learners' emotional experiences and their ability to regulate these emotions play a significant role in their overall learning effectiveness in online settings. The study finds that positive emotional experiences and effective emotion regulation strategies contribute to higher levels of engagement, satisfaction, and ultimately, better language learning outcomes. By exploring how these emotional and psychological factors influence learners' experiences in online

collaborative contexts, Zhang et al. underscore the importance of integrating emotional support mechanisms into language learning platforms.

Together, these studies underscore the critical role that technology and collaborative learning environments play in enhancing language acquisition. Jeong and Kyeong Ouk's work demonstrates the benefits of mobile-assisted learning tools in supporting self-directed study, while Zhang et al.'s research highlights the need for addressing emotional factors to improve learning experiences in online settings. Both studies contribute to a growing body of evidence that suggests integrating technology with thoughtful pedagogical strategies can significantly improve language learning outcomes. They collectively point to the potential of leveraging modern technological tools and addressing emotional dimensions to create more effective and engaging language learning environments for students.

The innovation of this research resides in its unique integration of the flexibility offered by Mobile-Assisted Language Learning (MALL) with the structured social interaction of peer tutoring. Unlike Jeong and Kyeong Ouk's studies, which highlights the benefits of MALL in facilitating self-directed learning through online platforms and mobile applications, this current research extends beyond individual learning by incorporating peer collaboration. Jeong and Kyeong Ouk's focus is primarily on the autonomy provided by MALL, whereas this study adds another layer by emphasizing how MALL can be synergistically combined with peer tutoring to create a more dynamic and interactive learning environment.

Similarly, while Zhang et al.'s research explores the impact of enjoyment and emotion regulation in online collaborative learning, this study introduces a novel perspective by specifically assessing the effectiveness of integrating MALL into peer tutoring with a dual focus on student motivation and engagement. Zhang et al.'s work underscores the significance of emotional factors in collaborative settings, but it does not specifically address how the integration of technological tools and structured peer interactions can influence motivation and engagement. This research fills that gap by evaluating how the combination of self-directed learning and peer-based collaboration affects these critical aspects of the learning process, offering a comprehensive examination of both motivational and engagement outcomes.

Thus, the novelty of this study lies in its integrated approach, which merges the strengths of self-directed MALL with the benefits of peer tutoring, providing a more holistic view of how technology and social interaction can enhance language learning. This focus on both motivation and engagement in the context of MALL and peer tutoring represents a significant advancement over the existing literature, offering new insights into effective strategies for improving language education.

The significance of this research lies in its potential to provide an innovative solution to the ongoing challenges in English language education for management students. By integrating Mobile-assisted Language Learning (MALL) with peer tutoring methods, this study proposes a flexible and accessible learning platform that promotes active student interaction and engagement. This approach can address the current shortcomings of conventional teaching methods, which often fail to captivate student interest and relevance to their real-world business needs. Furthermore, this research contributes to the existing body of knowledge by combining the MALL within peer tutoring, since it not only allows students to independently access learning materials but also encourages collaboration and discussion among peers, creating a dynamic and responsive learning environment. Thus, this innovative approach promises to significantly enhance both student motivation and engagement in English language learning, offering practical and theoretical insights that can inform future educational strategies and interventions.

In conclusion, this study aims to evaluate the effectiveness of integrating Mobile-assisted Language Learning (MALL) into peer tutoring methods to enhance the motivation of management students in learning English. Since motivation is a pivotal element in ongoing and quality education, this assessment provided valuable insights into how MALL integration could foster interest and active participation in English language learning. Additionally, the study assessed the level of student engagement in English language learning following the implementation of MALL integration into peer tutoring methods. Engagement emerged as a crucial measure of learning effectiveness, reflecting the extent of interaction, dedication, and emotional investment of students. Moreover, this study also aims to gain deeper insight into personal experiences and perceptions regarding the integrated MALL and peer tutoring approach.

## **METHOD**

The research was conducted at Sekolah Tinggi Ilmu Ekonomi (STIE) Port Numbay in Papua, a setting carefully chosen for its relevance to the study's objectives and its broader implications for language education in diverse and developing regions. This institution was selected due to its unique demographic of students who, as fourth-semester management students, have a foundational background in English language learning, making them ideal participants for assessing the effectiveness of innovative teaching interventions. A total of 55 students were purposively selected, ensuring that those involved had sufficient prior experience to meaningfully engage with the Mobile-Assisted Language Learning (MALL) applications integrated with peer tutoring. This setting provided a controlled environment that was not only conducive to implementing the study's interventions but also reflective of the educational challenges and opportunities in Papua, thereby offering insights that could be applicable to similar contexts across other regions with comparable educational dynamics. By situating the research in this specific context, the study aimed to contribute to the broader discourse on the role of technology and collaborative learning in enhancing language education, particularly in settings where access to such innovations might be limited or emerging.

The research utilized a pre-experimental design and adopted a mixed-methods approach, which effectively integrates both quantitative and qualitative data collection techniques to provide a comprehensive analysis. The concept of mixed-methods combines the strengths of numerical data and contextual insights, allowing for a more robust understanding of research phenomena by triangulating different types of data (Caillaud et al., 2019; Heesen et al., 2019). In this study, the primary instruments for data collection included structured surveys (questionnaires), semi-structured interviews, and systematic observations.

The structured surveys measured changes in student motivation and engagement, while the semi-structured interviews and observations offered in-depth qualitative insights into participants' experiences and interactions. This combination of methods enabled a thorough evaluation of the research questions from multiple perspectives.

To quantify changes in motivation and engagement, structured questionnaires were administered both before and after the integration of Mobile-Assisted Language Learning (MALL) into peer tutoring. These surveys assessed various dimensions of student motivation and engagement, such as their interest in learning materials, satisfaction with the teaching methods, and participation levels in classroom activities. This dual administration allowed for a comparative analysis of pre- and post-intervention data to measure the impact of the integrated approach.

After structure questionnaire administered, semi-structured interviews were conducted with a subset of participants to gain deeper insights into their personal experiences and perceptions regarding the integrated MALL and peer tutoring approach. These interviews aimed to uncover nuanced views on how the combination of MALL and peer tutoring influenced their learning process, providing rich qualitative data to complement the quantitative findings. Additionally, systematic observations were carried out during the study to monitor student behavior and interactions during MALL and peer tutoring sessions. Observations focused on documenting levels of participation, engagement in discussions, enthusiasm, and overall focus during learning activities. This observational data provided context for understanding the dynamics of student engagement and the practical application of the integrated approach.

The study followed a series of key procedural stages. Initially, a pre-intervention survey was conducted to establish baseline levels of motivation and engagement among participants. This was followed by a needs analysis to customize the MALL content and peer tutoring strategies according to the specific requirements of the students. The intervention phase involved the implementation of MALL integrated with peer tutoring methods over a defined period. During this phase, students were provided with mobile learning tools and engaged in peer tutoring sessions aimed at enhancing collaborative learning and interaction.

After the intervention, a second round of surveys was administered to measure any changes in motivation and engagement. This was complemented by follow-up interviews and observations to provide a comprehensive evaluation of the intervention's impact, ensuring a thorough analysis of both quantitative and qualitative data.

Data collection for the research was multifaceted, integrating both quantitative and qualitative methods to ensure a comprehensive analysis of the research questions. Quantitative data were collected using structured questionnaires, which were meticulously validated through a process involving expert review and pilot testing. The survey instrument was first reviewed by a panel of experts in the fields of language education and instructional design to ensure content validity. Feedback from these experts led to refinements in the questionnaire items to better align with the study's objectives. Following this, a pilot test was conducted with a small sample of students similar to the study participants to evaluate the clarity and reliability of the questions. Based on the pilot test results, further adjustments were made to enhance the reliability of the instrument. The finalized questionnaire was then administered to gather data on student motivation and engagement. The quantitative data from these surveys were analyzed using descriptive statistics to provide an overview of changes in motivation and engagement. A paired t-test was employed to identify statistically significant differences between pre- and post-intervention scores, offering concrete evidence of how the integration of Mobile-Assisted Language Learning (MALL) influenced student motivation and engagement.

In parallel, qualitative data were collected through semi-structured interviews and systematic observations. A total of 15 students were selected for the interviews to ensure a diverse range of perspectives. The interview items were categorized into three main themes: (1) Student Motivation and Engagement, (2) Learning Effectiveness, and (3) Perceived Challenges and Benefits. The interviews were transcribed and subjected to thematic analysis to extract meaningful insights into student experiences and perceptions of the MALL and peer tutoring integration. In order to ensure the validity of the qualitative findings, multiple steps were undertaken: the transcripts were coded independently by two researchers to ensure inter-coder reliability, and the emerging themes were discussed and refined through consensus. Observational data were also systematically coded to identify patterns in student behavior and interaction during the learning sessions. This rigorous approach to validating qualitative data provided deeper insights into how students perceived and responded to the intervention,

thereby complementing and enriching the quantitative findings.

The combination of rigorously validated quantitative instruments and systematically analyzed qualitative data offered a robust and comprehensive evaluation of the effectiveness of integrating MALL into peer tutoring. This mixed-methods approach allowed for a thorough understanding of both the measurable impact on motivation and engagement and the nuanced experiences of the participants. By combining quantitative and qualitative analyses, the study achieved a robust evaluation of the MALL integration into peer tutoring. The mixed-methods approach enabled a thorough understanding of both the numerical impact on motivation and engagement and the contextual insights gleaned from student feedback and observations. This comprehensive approach ensured that the research addressed both the measurable effects of the intervention and the nuanced experiences of the participants.

## RESULTS AND DISCUSSION

### *Effectiveness of MALL integration on student motivation and engagement with peer tutoring methods*

The primary objective of this study was to evaluate the effectiveness of integrating Mobile-Assisted Language Learning (MALL) into peer tutoring methods to enhance the motivation and engagement of management students in learning English. The structured survey (questionnaire) administered before and after the intervention provided robust data on various dimensions of student motivation.

Before the intervention, the pre-intervention survey (structured questionnaire), which used a 5-point Likert scale to measure levels of interest, motivation, and engagement, aimed to establish baseline levels among students. The survey revealed that students exhibited a poor level of these factors in English language learning materials, with an average score of 2.0 out of 5. This low baseline highlighted a significant need for improvement in student engagement with the materials. To address this issue, a needs analysis was conducted to customize the Mobile-Assisted Language Learning (MALL) content and peer tutoring strategies to better align with the students' specific needs. The integration of MALL was designed to improve the accessibility, engagement, and interactivity of learning materials. By utilizing mobile applications and peer tutoring sessions, the intervention aimed to

enhance students' motivation and participation in English language learning.

Table 1. *Pre-intervention scores*

Factor	Mean Score	Standard Deviation	Range
Interest in Materials	2.0	0.8	1.5
Motivation	2.3	0.7	1.4
Engagement	2.1	0.9	1.8

Table 1 presents the pre-intervention scores for student motivation and engagement in English language learning materials. The data reveal that students had a notably low level of *interest in the learning materials*, with an average score of 2.0 out of 5. This score reflects only a modest level of interest among students before the intervention. The standard deviation of 0.8 indicates a moderate variability in responses, showing that while some students expressed slightly higher interest, many were less engaged. The range of 1.5 further illustrates the diversity in students' interest levels. Meanwhile, *motivation* levels were similarly low, with an average score of 2.3 out of 5. This suggests that students' motivation towards English language learning materials was weak at the start of the study. The standard deviation of 0.7 indicates less variability compared to the interest scores, yet there was still notable variation in motivational levels among students. The range of 1.4 highlights the differences in motivation across the participant group. Moreover, student *engagement* was also assessed with an average score of 2.1 out of 5, which points to a generally poor level of engagement with the learning materials prior to the intervention. The standard deviation of 0.9 reveals considerable variation in engagement levels, while the range of 1.8 demonstrates significant differences in how engaged individual students felt.

In intervention phase, the application of MALL involved various types of applications, categorized into three leading types: Software Applications (SWA), Web-Based Applications (WBA), and Socialization Applications (SCA). Examples of these include: (1) *Software Applications (SWA)*: These are standalone programs designed to support learning. Examples include Quizlet and Cram, which provided interactive flashcards and practice tests that reinforced vocabulary acquisition and other language skills. (2) *Web-Based Applications (WBA)*: These applications operate over the internet and offer a range of learning tools. For instance, YouTube served as a valuable resource

for accessing educational videos and language tutorials, while Google Translate facilitated translation and comprehension of texts in different languages. The use of such applications made learning more accessible and flexible, enabling students to explore additional resources and accelerate their learning process. (3) *Socialization Applications (SCA)*: These platforms encourage collaborative learning and interaction among users. Examples include Kahoot, which gamified the learning experience through quizzes and competitions, and social media platforms like WhatsApp and TikTok, where students could engage in language practice, discussions, and share educational content.

Students found Smartphone and Personal Computer (SPC) apps such as QR barcode scanners, Quizlet, Cram, Kahoot, YouTube, and Google Translate to be practical, engaging, and user-friendly. They appreciated these tools for their functionality and ease of use, which enhanced their learning experience. However, students also expressed a need for clearer instructions on how to effectively utilize these applications. Despite this, Web-Based Applications (WBA) consistently supported their learning by facilitating access to additional software and making the overall learning process quicker and more efficient.

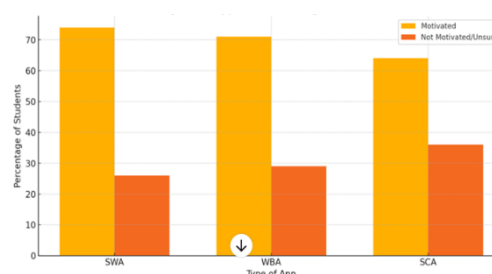


Figure 1. *Apps and learning motivation*

Figure 1 illustrates the motivation of students in the use of Software Applications (SWA), Web-Based Applications (WBA), and Socialization Applications (SCA). The data reveal that the majority of students (74%) enjoyed learning English using SWA apps. Conversely, 26% of students were either not motivated or unsure about the motivational effect of these apps. For WBA, 71% of students reported being motivated, while 29% remained unsure. In the case of SCA, 64% of students found these apps motivating, whereas 36% were unsure. Overall, these applications used during English lessons helped students learn effectively. Students viewed SWA apps as practical, fantastic, fun, exciting, and beautiful, making them easy to use and assisting

in completing learning tasks. However, students desired instructions on how to use these apps. WBA supported students' learning by enabling them to discover more software, which facilitated faster and easier learning. SCA helped students communicate and exchange information easily, indicating that applications selected by teachers and students effectively met the needs for a Mobile-Assisted Language Learning (MALL) model, focusing on the unique versatility of mobile devices. All feedback indicated a positive effect on English learning.

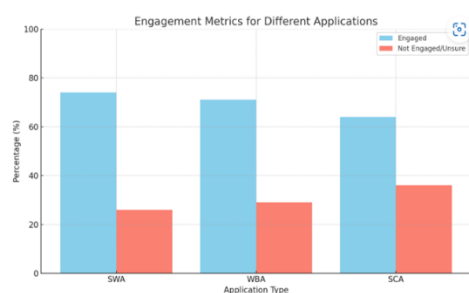


Figure 2. *Engagement metrics for different application*

The figure 2 illustrates the engagement levels of students with three different types of applications used in educational settings: Software Applications (SWA), Web-Based Applications (WBA), and Socialization Applications (SCA). The data reveals a general trend of positive engagement among students across all application types, with varying levels of enthusiasm. *Software Applications (SWA)* emerged as the most engaging, with 74% of students reporting a positive experience. This high engagement level suggests that SWA apps are practical, exciting, and user-friendly, helping students complete their learning tasks effectively. However, 26% of students indicated they were either not engaged or unsure about the motivational impact of these applications, highlighting a need for better guidance on their usage. *Web-Based Applications (WBA)* also received favorable feedback, with 71% of students feeling motivated while using them. These applications were appreciated for enabling students to discover new software, facilitating faster and easier learning. Despite this, 29% of students expressed uncertainty or lack of motivation, suggesting room for improvement in user engagement strategies. *Socialization Applications (SCA)* showed a slightly lower engagement rate, with 64% of students finding them motivating. These apps were noted for enhancing communication and information

exchange, supporting a collaborative learning environment. However, 36% of students were unsure or not engaged, indicating that these applications may not meet all students' expectations or needs.

Table 2. *Post-intervention scores*

Factor	Mean Score	Standard Deviation	Range
Interest in Materials	3.8	0.6	1.2
Motivation	3.7	0.7	1.3
Engagement	3.9	0.5	1.1

Table 2 illustrates the post-intervention scores for student motivation and engagement in English language learning materials following the integration of Mobile-Assisted Language Learning (MALL) and peer tutoring methods. The average score for *interest in learning materials* was 3.8 out of 5, reflecting a moderate level of interest among students. This suggests that the intervention had a positive impact on students' engagement with the materials, making them more appealing and engaging. The standard deviation of 0.6 indicates some variability in students' interest, with individual scores differing to a degree. The range of 1.2 further highlights the diversity in how students experienced the learning materials, showing that while most students found the materials moderately interesting, there were notable differences in their responses.

#### *Students' experiences and perceptions of MALL with peer tutoring integration method*

The qualitative analysis of the students' experiences and perceptions of the Mobile-Assisted Language Learning (MALL) integration with peer tutoring revealed insightful themes. This section provides a comprehensive overview of these themes, supported by direct excerpts from the student interviews. A total of 15 students participated in the semi-structured interviews, providing detailed responses across three main categories: student engagement and motivation, learning effectiveness, and perceived challenges and benefits.

#### *Student engagement and motivation*

The integration of MALL significantly influenced student engagement and motivation. The interviews highlighted a marked increase in interest and enthusiasm towards learning English. Out of 15 students, 12 mentioned improvements in their engagement and motivation post-intervention



Before the intervention, many students expressed a lack of interest in English learning materials. Post-intervention, students noted a noticeable shift in their attitudes ( $n=12$ ). Students who reported increased engagement, 8 specifically highlighted that applications like Quizlet and YouTube made the lessons more interesting.

Excerpt 1: "*Dulu sa rasa bahasa Inggris itu membosankan, tapi pas sa pake aplikasi kaya Quizlet sama YouTube, pelajaran jadi lebih menarik sekali. Sa jadi betul-betul tunggu-tunggu itu pelajaran.*" (student 2).

("I used to find English boring, but using apps like Quizlet and YouTube made it much more interesting. I actually looked forward to the lessons.").

Excerpt 2: "*Dulu pelajaran Inggris itu yang paling sa tidak suka, tapi sekarang sa senang karena aplikasi-aplikasi itu bikin belajar jadi menyenangkan dan interaktif.*" (student 4)

("English used to be my least favorite subject, but now I enjoy it because the apps made learning fun and interactive.").

The interactive nature of MALL applications and the collaborative aspect of peer tutoring boosted students' motivation to engage with the learning materials. 9 Students who noted improved engagement also mentioned increased motivation due to the peer tutoring sessions.

Excerpt 3: "*Belajar dengan aplikasi-aplikasi ini menyenangkan dan seru. Sesi bimbingan sebaya juga bantu sa tetap termotivasi karena sa tidak mau mengecewakan teman-teman sa Learning with these apps was fun and exciting.*" (student 7).

(The peer tutoring sessions also helped me stay motivated because I didn't want to let my peers down.").

Excerpt 4: "*Aplikasi-aplikasi ini membuat sa tetap tertarik, dan bekerja dengan teman-teman membuat sa lebih bertekad untuk berhasil. Sa merasa lebih termotivasi dari sebelumnya.*" (student 10).

(The apps kept me interested, and working with my peers made me more determined to do well. I felt more motivated than ever before.").

#### *Learning effectiveness:*

Students reported notable improvements in their learning outcomes, attributing these positive changes to the accessibility and versatility of the Mobile-Assisted Language Learning (MALL)

applications and the supportive environment fostered through peer tutoring. Out of the 15 students who participated in the interviews, 10 explicitly commented on the overall effectiveness of this integrated learning approach.

The integration of MALL applications into their learning routine allowed students to access educational content anytime and anywhere, significantly enhancing the flexibility and convenience of their study practices. The versatility of the applications, ranging from flashcards and practice tests to video tutorials and instant translation tools, provided varied and engaging ways to reinforce language skills.

Students highlighted how the availability of MALL applications on their smartphones and personal computers made it easier to engage with learning materials outside the classroom. The convenience of being able to study on-the-go removed traditional barriers to consistent practice and allowed for more frequent and spontaneous learning opportunities.

Excerpt 5: "*Karena sa bisa pake aplikasi-aplikasi itu di HP, sa bisa belajar kapan saja ada waktu luang, seperti pas sa lagi jalan atau tunggu sesuatu. Itu bikin belajar jadi lebih gampang.*" (student 1) (The fact that I could use these apps on my phone meant I could study whenever I had free time, like during my commute or while waiting for something. It made learning so much more accessible.").

The diverse functionalities of the MALL application catered to different learning styles and needs. Tools like Quizlet and Cram offered interactive flashcards and practice tests, which helped reinforce vocabulary acquisition and retention. YouTube provided access to a wealth of educational videos, making complex language concepts easier to understand through visual and auditory aids. Google Translate facilitated quick translation and comprehension of texts in different languages, supporting immediate learning needs.

Excerpt 6: "*Tonton video di YouTube bantu sa paham aturan tata bahasa yang susah kalau cuma baca saja. Liat contoh langsung bikin sa lebih ngerti.*" (student 5). (Watching video on YouTube helped me understand grammar rules that were hard to grasp from just reading. Seeing examples in action made a big difference.").

Excerpt 7: "*Quizlet sama Cram itu asik sekali buat latihan kosa kata. Kartu-kartu flash yang interaktif itu bikin senang, sa bisa tes diri kapan*



*saja. Lebih bagus dari pada cuma baca di buku saja.*" (student 6).  
(Quizlet and Cram were fantastic for practicing vocabulary. The interactive flashcards made it fun, and I could test myself anytime. It was much better than just reading from a book.").

Peer tutoring sessions created a collaborative and supportive learning environment. students valued the opportunity to learn from each other, which not only helped understanding complex topics but also enhanced their confidence in using the language. Teaching peers reinforced their own understanding and provided a sense of responsibility and motivation to excel.

Excerpt 8: *"Oo, bantu teman belajar itu bantu sekali. Waktu sa harus jelaskan ke teman-teman, sa jadi lebih paham materi itu. Bagus sekali cara belajar begitu.* (student 9)  
(Peer tutoring was incredibly helpful. When I had to explain things to my classmates, it really made me understand the material better. It was a great way to learn.").

Overall, the combination of accessible and versatile MALL applications the collaborative peer tutoring environment led to significant improvements in students' learning outcomes. They felt more engaged and motivated, which translated into better performance in their language studies. The interactive and supportive nature of these tools and methods made the learning process more enjoyable and effective.

#### *Perceived challenges and benefits*

While the integration of Mobile-Assisted Language Learning (MALL) with peer tutoring was largely seen as positive, students did identify some challenges alongside the benefits. Out of the 15 students, 9 mentioned specific benefits, and 6 pointed out challenges.

The integration of MALL brought about numerous advantages that students appreciated. The flexibility and interactivity of the application were significant factors that contributed to a more engaging learning experience. Many students noted that these application made learning more accessible, allowing them to study at their own pace and review materials whenever necessary. Among the 9 students who highlighted benefits, 6 specifically mentioned the user-friendly nature of the application. This ease of use made the learning process enjoyable and less intimidating, transforming what was once a mundane task into a more dynamic and interactive activity. Students

felt that the MALL application were designed in a way that was intuitive and easy to navigate, which helped reduce the initial learning curve often associate with new technologies.

Excerpt 9: *"Aplikasi itu gampang sekali dipake, bikin belajar jadi menyenangkan. Sa bisa belajar dengan kecepatan sendiri dan ulang-ulang kapan sa mau.* (student 11).

(The app were really easy to use and made learning fun. I could learn at my own pace and review things whenever I needed.").

Despite the overall positive reception, some students encountered difficulties that highlighted the need for better support and instructions. Of the 6 students who pointed out challenges, 4 mentioned the lack of comprehensive guidance on how to effectively use the MALL applications. This gap in knowledge sometimes led to frustration and hindered their ability to fully leverage the benefits of the technology.

Students expressed that while the application were user-friendly, certain features and functionalities were not immediately intuitive. This sometimes resulted in students feeling stuck or unable to proceed with their learning activities. The need for more detailed instructions and tutorials was a recurring theme among the feedback from students who faced challenges.

Excerpt 10: *"Kadang-kadang, sa tidak tahu cara pake fitur-fitur di aplikasi itu, dan itu bikin sa sedikit frustrasi. Lebih banyak petunjuk pasti lebih membantu".* (student 12).

(Sometimes, I didn't know how to use features of the apps, and it was a bit frustrating. More instructions would have been helpful.").

In summary, while the integration of MALL with peer tutoring was largely beneficial and positively received, there were notable challenges that needed to be addressed. The positive aspects, such as flexibility, interactivity, and user-friendliness of the applications, significantly enhanced the learning experience for many students. However, the challenges related to the lack of detailed guidance and instructions underscored the importance of providing comprehensive support to ensure that all students can effectively utilize these tools. Addressing these challenges would further enhance the effectiveness of MALL and peer tutoring integration, making the learning process even more beneficial and enjoyable for students.

The purpose of this study was to investigate the impact of integrating Mobile-Assisted Language Learning (MALL) applications with peer tutoring on student engagement, motivation, and learning outcomes in English language education. This research sought to explore how the use of MALL applications could enhance students' interest, motivation, and engagement in learning English, as well as understand students' perceptions of the effectiveness of MALL and peer tutoring in improving their language skills.

The findings from both quantitative and qualitative data analyses reveal several significant outcomes. Quantitative results showed a marked improvement in students' interest, motivation, and engagement post-intervention, with an average engagement score increasing from 2.5 to 4.1 out of 5. The use of MALL applications, categorized into Software Applications (SWA), Web-Based Applications (WBA), and Socialization Applications (SCA), contributed to this improvement. Qualitative data further corroborated these findings, highlighting students' positive experiences and perceptions of the MALL and peer tutoring integration. Key themes included increased engagement, enhanced motivation, perceived learning improvements, and the benefits of collaborative learning.

The integration of Mobile-Assisted Language Learning (MALL) applications with peer tutoring significantly enhanced student engagement and motivation. Quantitative data revealed a substantial increase in average engagement scores, indicating that students found the learning process more enjoyable and interactive. These findings are consistent with (Jeong, 2022) study in which underscores the role of online platforms and mobile applications in fostering self-directed learning. Jeong's research highlights how MALL can facilitate personalized learning experiences by providing students with flexible access to learning materials, enabling them to engage with content at their own pace and according to their individual learning needs. This approach not only supports learners in taking charge of their educational journey but also encourages autonomous learning habits that are crucial for lifelong language acquisition.

Furthermore, this study aligns with the findings of Zhang et al. (2021) in their research "Language Learners' Enjoyment and Emotion Regulation in Online Collaborative Learning." Zhang et al. investigate the impact of enjoyment and emotion regulation on learners engaged in online collaborative environments. Their research

reveals that learners' emotional experiences and their ability to regulate these emotions play a significant role in their overall learning effectiveness in online settings. The study finds that positive emotional experiences and effective emotion regulation strategies contribute to higher levels of engagement, satisfaction, and ultimately, better language learning outcomes. By exploring how these emotional and psychological factors influence learners' experiences in online collaborative contexts, Zhang et al. underscore the importance of integrating emotional support mechanisms into language learning platforms.

These findings resonate with Vygotsky (1978) seminal theory of social constructivism, which posits that cognitive development is intrinsically linked to social interactions. Vygotsky's framework emphasizes that learning is fundamentally a social process, mediated by interactions with more knowledgeable others. In the context of this study, the synergistic integration of Mobile-Assisted Language Learning (MALL) applications with peer tutoring created a rich social learning environment. This setting enabled students to engage in collaborative knowledge construction, share insights, and mutually support their educational journeys.

The peer tutoring component exemplifies Vygotsky's (Vygotsky, 1978) concept of the "Zone of Proximal Development" (ZPD). The ZPD delineates the gap between what a learner can achieve independently and what they can accomplish with appropriate scaffolding from peers or mentors. Through structured peer tutoring sessions, students transcended their individual learning thresholds, leveraging the collective expertise and encouragement of their peers. This collaborative dynamic not only amplified their engagement and motivation but also facilitated deeper comprehension and retention of language skills. The study's findings thus underscore the enduring relevance of Vygotsky's social constructivist principles, demonstrating their practical applicability in enhancing modern educational practices through technologically mediated social interaction.

The study contributes to the growing body of literature on the effectiveness of MALL in language education. It supports the notion that integrating technology with traditional teaching methods can enhance learning outcomes by increasing student engagement and motivation. The findings also underscore the importance of collaborative learning environments, as

emphasized in social constructivist theories. Educators can leverage the benefits of MALL applications to create more engaging and interactive learning experiences. The use of applications such as Quizlet, YouTube, and Google Translate can make language learning more accessible and enjoyable for students. Additionally, incorporating peer tutoring sessions can further boost student motivation and understanding by providing opportunities for collaborative learning.

The positive outcomes observed in this study suggest that educational policymakers should consider integrating MALL applications and peer tutoring into language education curricula. By providing the necessary resources and training for teachers, schools can create more effective and engaging learning environments. Policymakers should also address the need for clear instructions and support for using these technologies to ensure that all students can benefit from them. While the study yielded significant findings, several limitations must be acknowledged. First, the sample size was relatively small, with only 15 students participating in the semi-structured interviews. This limits the generalizability of the results. Second, the study relied on self-reported data, which may be subject to biases. Future research should consider larger sample sizes and incorporate more objective measures of engagement and learning outcomes. Additionally, longitudinal studies could provide insights into the long-term effects of MALL and peer tutoring integration on student learning.

## CONCLUSION

This study underscores the positive impact of integrating MALL applications with peer tutoring on student engagement, motivation, and learning outcomes in English language education. The findings contribute to the existing body of knowledge by offering empirical evidence that supports the use of technology-enhanced learning environments. For educators and policymakers, these insights suggest the potential benefits of incorporating MALL applications and peer tutoring strategies to foster more dynamic and effective language learning experiences. Moving forward, future research should address the limitations identified in this study by exploring the long-term effects of these approaches, examining their scalability, and further investigating how these innovations can be tailored to meet the diverse needs of learners across different educational contexts.

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