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ENGLISH AS A FOREIGN LANGUAGE STUDENTS' PERCEPTION OF MALL IN FOSTERING VOCABULARY MASTERY: A MIXED METHODS APPROACH

by

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Abstract:

Technology plays a crucial role in helping students enhance their vocabulary mastery. A lack of attention to proper vocabulary learning during the teaching and learning process can pose challenges. Numerous studies have explored EFL students' perceptions of vocabulary development through technology. However, limited research has examined the influence of Gender on students' attitudes in this context. Therefore, this study aims to investigate EFL students' attitudes toward English vocabulary enhancement concerning gender differences. An explanatory mixed-methods approach was employed, incorporating Davis' (1993) questionnaire on technology integration in language learning and interviews. Quantitative data were gathered from 72 students and analyzed using descriptive statistical methods. Additionally, qualitative data were collected through semi-structured interviews with ten participants and examined using thematic analysis. The questionnaire findings indicated that students responded positively to the use and convenience of MALL, with no significant differences observed between male and female students. Moreover, interview results suggested that MALL facilitated vocabulary comprehension and mastery. These findings recommend incorporating more practical vocabulary learning media and equipping English lecturers with actionable insights to enhance student engagement in the learning process. This study also contributes to English pedagogy by emphasizing the importance of integrating technology into vocabulary learning.

Keywords: EFL students, English learning, MALL, Vocabulary

Abstrak:

Teknologi memainkan peran penting dalam membantu siswa meningkatkan penguasaan kosakata mereka. Kurangnya perhatian terhadap pembelajaran kosakata yang tepat selama proses belajar mengajar dapat menimbulkan tantangan. Sejumlah penelitian telah mengeksplorasi persepsi siswa EFL tentang pengembangan kosakata melalui teknologi. Namun, penelitian terbatas telah meneliti pengaruh gender terhadap sikap siswa dalam konteks ini. Oleh karena itu, penelitian ini bertujuan untuk menyelidiki sikap siswa EFL terhadap peningkatan kosakata bahasa Inggris terkait perbedaan gender. Pendekatan metode campuran penjelasan digunakan, menggabungkan kuesioner Davis (1993) tentang integrasi teknologi dalam pembelajaran bahasa dan wawancara. Data kuantitatif dikumpulkan dari 72

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siswa dan dianalisis menggunakan metode statistik deskriptif. Selain itu, data kualitatif dikumpulkan melalui wawancara semi-terstruktur dengan sepuluh peserta dan diperiksa menggunakan analisis tematik. Temuan kuesioner menunjukkan bahwa siswa menanggapi positif penggunaan dan kenyamanan MALL, dengan tidak ada perbedaan signifikan yang diamati antara siswa laki-laki dan perempuan. Selain itu, hasil wawancara menunjukkan bahwa MALL memfasilitasi pemahaman dan penguasaan kosakata. Temuan ini tidak hanya merekomendasikan penggabungan media pembelajaran kosakata yang lebih praktis tetapi juga membekali dosen bahasa Inggris dengan wawasan yang dapat ditindaklanjuti untuk meningkatkan keterlibatan siswa dalam proses pembelajaran. Studi ini juga berkontribusi pada pedagogi bahasa Inggris dengan menekankan pentingnya mengintegrasikan teknologi ke dalam pembelajaran kosakata.

Kata kunci: *siswa EFL, belajar bahasa Inggris, MALL, kosakata*

INTRODUCTION

Mastering Vocabulary is a problem for students. A student needs to have an excellent command of vocabulary to comprehend and communicate in English, whether they talk, write, read, or listen. However, the English as a Foreign Language (EFL) Vocabulary Learning (VL) process may be hampered by several difficulties, such as demotivation, diminished contact, and decreased engagement, since it is generally believed that students study vocabulary in class for tests and grades, but seldom retain that vocabulary beyond time (Sitompul, 2020). Vocabulary is vital to language competency, determining how effectively students speak, listen, write, and read (Mandasari & Aminatun, 2020; Richards & Renandya, 2022). In this scenario, while studying vocabulary mastery, students should change their learning style (Wahyudin & Rido, 2020), technique (Lestari & Wahyudin, 2020), and media usage (Sari & Wahyudin, 2019; Sasalia & Sari, 2020) to facilitate vocabulary mastery development. Mastering Vocabulary requires students to thoroughly understand the meanings, spoken and written forms, grammatical conduct, word derivation, combinations, word register (spoken and written), word implication or connections, and the frequency of words (Sugawara & Nikaido, 2014). Setiawan (2010) argued that receptive and productive knowledge could be the only practical approach to estimating vocabulary depth.

Vocabulary is described as the words that must be learned to communicate successfully, including those used in speaking (expressive vocabulary) and listening (receptive vocabulary) as proposed by scholars (Aminatun & Oktaviani, 2019; Klopfer et al., 2002a). The receptive vocabulary refers to the terminology a reader encounters when listening and reading. They are the phrases that viewers and hearers employ to understand particular messages. Such vocabularies are highly linked to receptive language abilities. Susanto (2017)

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and Webb (2008) stated that these are the words children identify during the reading activity. Laufer and Goldstein (2004) proposed that receptive vocabulary relates to listening and reading.

In contrast, productive vocabulary means the collection of words employed to create messages. Speaking and writing are two essential abilities that efficiently use useful vocabulary. In brief, they are named for the productive language talents they are intended to correlate to.

Concerning the frequency of words, the vocabulary is more likely to be divided into active and passive vocabularies. The active vocabulary is the set of words that listeners and writers commonly employ because they are fully comprehended (Dakhi & Fitria, 2019). They are phrases easily remembered and utilized when a speaking or writing scenario necessitates them. In practice, active words are ones that we can use without having to pause and remind ourselves. Laufer (1998) classified them into two subgroups: regulated active and free active.

On the other hand, passive vocabulary refers to terms that are not fully comprehended and are rarely employed while writing or speaking. As a result, it is possible to argue that passive vocabulary is a prerequisite for active vocabulary. It is a choice stage because people have varied talents, and words have various levels of understanding, which must be gained before active vocabulary mastering.

The significance of vocabulary and vocabulary mastery is insufficient to motivate ELT (English Language Teaching) practitioners to place a higher priority on teaching vocabulary and learning vocabulary, as it has been found that vocabulary teaching and learning do not seem to be very important in English language learning in the Indonesian context (Cahyono & Widiati, 2015). It is quite problematic, given that in a country where English is a foreign language, such as Indonesia, teaching English is likely to confront several barriers and problems, notably those involving vocabulary. For example, with the widespread Mobile Apps in which English is primarily taught through various texts, students must read and comprehend what they are about. One of the most pressing issues is that children continue to lack vocabulary. This result validates the findings of Kweldju (2004), who found that students' limited vocabulary is the most significant barrier to learning English for EFL

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students. This challenge may be related to how educators and students understand vocabulary teaching and learning and how vocabulary is taught and learned in ELT practice.

However, when learning new words, the circumstance varies by context. Tseng and Schmitt (2008) suggest that effective learning strategies are crucial for vocabulary acquisition in foreign language learning due to limited opportunities for target-language input, output, and interaction. In both EFL and ESL (English as Second Language), it was shown that a lack of vocabulary understanding might be a significant factor for learners' reluctance to be exposed to reading and listening abilities (Daar, 2020). Furthermore, a wide range of important aspects are typically included in vocabulary learning (and teaching) challenges, such as frequency of words, importance, learning burden, and students' specific vocabulary requirements and wishes (Rahmah et al., 2023).

While teachers may believe that vocabulary acquisition is simple, acquiring unfamiliar words remains difficult for students. The instructional consequences for EFL students with a restricted vocabulary are significant. Students lacking adequate vocabulary or word-learning skills suffer during their studies, resulting in dissatisfaction and disappointment (Khany & Khosravian, 2014). In addition, an individual's vocabulary level is perceived as a manner of opening or restricting access to knowledge, frequently indicating whether a person is deemed intelligent (Beck & McKeown, 2007). One of the first challenges a foreign language student faces is setting many foreign words to remember. Developing autonomous vocabulary abilities requires a high degree of desire from the learner. It is an ongoing procedure that includes multiple factors and the practice of various skills (Daar, 2020).

The tactics employed by students vary depending on the learner; in the classroom, teachers may model their methods, educate students about them, and practice skills to inspire students' autonomous vocabulary development skills. This classroom activity allows students to take responsibility for their learning. Recently, there has been a surge of interest in learning practices that aim to improve students' vocabulary acquisition and growth (Wege, 2018). The technique of vocabulary development will occur when learners are first exposed to new words and their meanings and then placed in conditions where they must retrieve, recall, and use desired vocabulary items in various contexts and settings (Cook, 2021). Vocabulary development encompasses more than just word meanings, including pronunciation, spelling,

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grammar, connotations, morphology, and semantic associations. When scaffolded and guided, English students can successfully build vocabulary (Kayi-Aydar, 2018). According to Rogers (2018), effective vocabulary development requires teachers to aid students in managing the time they spend studying to maximize knowledge in and out of the classroom with technology.

The usage of mobile phones in vocabulary mastering and teaching procedures has rapidly increased, and many experts agree on the function of cell phones in Vocabulary mastering. Isazadeh et al. (2016) found that technology has had a good influence on vocabulary mastery. Mehdipour and Zerehkafi (2013) described mobile learning in straightforward terms. In his perspective, mobile learning meant learning anywhere and at any time using the technology of cell phones. Sharples (2007) defined mobile learning as a tailored learning activity that is adaptable and suitable for individual needs. Based on Laurillard (2007), to make the most of mobile devices in learning settings, the activities (tasks) for using these devices should be specified; this means that focus should be paid to the pedagogical components of the procedure instead of the technological parts. This was in response to the emphasis on education on technology instead of teaching. As a result, the MALL was created.

Mobile-Assisted Language Learning (MALL) incorporates mobile technology into language instruction (Aulia & Indrayadi, 2023). This technological tool's portability, availability, and mobility make it a significant feature that might produce students' learning focus in the classroom (Al-Zahrani, 2015). Similarly, Davie and Hilber (2015) describe MALL as the use of mobile devices to support language learning, such as a Personal Digital Assistant (PDA), a regular cellphone, a smartphone, a tablet computer, an Android device, or an MP3 player, all of which are used as educational tools. It also seeks learning opportunities and is adaptable enough to be utilized wherever students want to study (Howlett & Waemusa, 2019). This educational technology tool assists students in learning English. MALL also allows for increased student engagement in the educational process. Shadiev et al., (2022) suggest that MALL offers students practical, actual time, and contextual learning opportunities, both within and outside the classroom.

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According to Ashah (2018), the concept of MALL was coined to reflect the extraordinary growth of mobile phones. MALL is a language learning technique that uses mobile and portable devices, such as tablets, smartphones, and applications for smartphones, as learning and educational resources for learners via a website (Godwin-Jones, 2017; Loewen et al., 2019; Rocca, 2018). As a result, MALL applications might be used as an excellent mobile language learning tool (Gonulal, 2019; Helwa, 2017; Morgana, 2019; Stockwell, 2008; Tayan, 2017).

MALL has received widespread attention and has emerged as a notable strategy in the field of language acquisition. This is consistent with Nguyen's work (2023), stating that MALL can be used to support and enhance language acquisition. Its device can utilize language learning resources, engage in learning languages, and provide significant benefits and possibilities for language learners (Li, 2023). These technological tools give learners convenient access to educational materials, interactive activities, and authentic language resources. Govindasamy et al. (2019) view mobile devices as ideal for learning due to their portability and convenience. The application enabled learners to participate in language acquisition at any time and from any location, overcoming the limits of conventional classroom settings. Ghanizadeh et al. (2022) argued that using mobile devices throughout language instruction allows learners to continue at their speed and in various contexts, promoting learner autonomy and motivation.

Moreover, Nisbet and Austin (2013), mobile applications can be an efficient way for EFL learners to increase their vocabulary. There is a strong link between mobile technology usage and the EFL Vocabulary Learning procedure (Lin & Lin, 2019). Yudintseva (2015) analyzed the significance of games in EFL Vocabulary Learning improvement and proposed successful tactics, including word repetitions, contextual hints, engagement with native English speakers, and visuals. Commercial vocabulary enhancement mobile applications face issues such as a lack of chance to create in the target language, a lack of context to provide the newly added vocabulary, and a lack of training on some parts of the word's meaning (Pires & Tumolo, 2020). Çelik and Yavuz (2018) found that mobile applications supporting vocabulary acquisition are characterized as either literal or situational.

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Furthermore, according to the explained to previous findings, research that found the use of an application in vocabulary learning was either purely qualitative (Wege, 2018), statistical, and carried out with young students around 12-14 years old (Lam et al., 2018), or conducted by a relatively small sampling (Dizon, 2016). As a result, they often lack technique triangulation, which might give more details about those who participated and boost the reliability and validity of the results. Based on Marek and Wu (2014), "learning of language is a complicated fluid system in which numerous and altering internal and external variables, which can become hard or not possible for oversight, affect EFL acquiring results and that those should be implemented into consideration in CALL (Computer-Assisted Language Learning) educational design." To identify the vacuum in the literature, the present research used a mixed-method research design, which utilized qualitative and quantitative approaches to evaluate EFL learners' impressions regarding using an application for vocabulary mastering over fourteen weeks.

Participating in the acquisition of vocabulary via tutorial or customized mobile apps with word games or flashcard reinforcements has been shown to improve memory for words and pique learners' interest in mobile-based vocabulary learning (Agca & Özdemir, 2013; Marek & Wu, 2014; Ono et al., 2015; Sandberg et al., 2014). When learners use mobile devices to complete vocabulary exercises or tests, they receive rapid feedback on their replies, allowing them to detect and correct any inaccuracies quickly. The giving of reward strengthens learners' comprehension of correct replies while decreasing the likelihood of future mistakes. The timely distribution of feedback also increases learners' motivation and participation by instilling a sense of progress and success. This, in turn, boosts learners' self-confidence, creating an ongoing dedication to learning and Mastering Vocabulary.

There are several international studies on MALL, especially its impact on vocabulary. Kondo et al. (2012) found that MALL helps students improve their TOEIC Listening and Reading Test scores. MALL also assists students in improving their writing abilities (Al-Hamad et al., 2019; Gharehblagh & Nasri, 2020). This suggests how MALL applications can be helpful to mobile language learning tools (Gonulal, 2019). Kwangsawad (2019) conducted a qualitative study with 103 EFL students enrolled in TEFL 1-2 at the Thailand Mahasarakham University Faculty of Education. According to the data, all students utilize

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MALL in EFL education. The MALL kinds utilized in Kwangsawad's study were smartphones and iPads, and study participants reported that these gadgets were helpful, enjoyable, and efficient. Then, Arumugam and Noor (2021) conducted a study on 60 students at a school in southern Malaysia using a quasi-experimental research design.

Also, Kohnke and Ting (2021) conducted a study at EMI University in Hong Kong using a Qualitative approach. MALL has been shown to improve vocabulary mastering (Ghanizadeh et al., 2022). A study by Li (2023) shows that using mobile phones for vocabulary mastering provides learners with various materials, such as flashcards, quizzes, and fun games, which contribute to a more immersive and thorough learning experience. The interactive aspect of mobile devices encourages active involvement and motivation in learners, resulting in more successful vocabulary learning. MALL was shown to deliver quick feedback, improving recall and retention of newly taught language (Nguyen, 2023).

In Indonesia, there is not much research on MALL on vocabulary mastery. One of them is Novanti and Suprayogi (2021), who studied the effect of webtoons on vocabulary in 48 high school and college students in Bandar Lampung using a descriptive qualitative data research method. Then there is Aprilani (2021), who looked at the use of Quizlet in vocabulary learning in 5 10th-grade high school students in Indonesia using a qualitative approach.

The differences between the articles above and the article we are currently researching are the differences in the applications used, samples, and research locations. This study uses a mixed-method approach that provides a more complete picture of the matter being studied. This study will also have a significant impact, especially in Indonesia, because of the lack of Research on MALL on vocabulary mastery.

Researchers saw English Department students having difficulty mastering vocabulary in a vocabulary course at one of the state Islamic campuses in Jambi province. Then, researchers suggested using MALL on English students to see whether the application is practical and easy to use to master vocabulary.

This study assesses the ease of use of EFL Vocabulary Mastery through MALL. Several studies have been conducted about MALL concerning English vocabulary; data on

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the perception of instructional technology in lack of Vocabulary (Aprilani & Suryaman, 2021; Arumugam & Noor, 2021; Bieńkowska et al., 2021; Huei et al., 2021; Kohnke, 2020; Polakova & Klimova, 2022; Xodabande & Hashemi, 2023). As a result, this study is being conducted to learn about the students' perspectives. The following study questions are created to determine student perceptions:

1. What is the Student's opinion on MALL's feasibility in fostering vocabulary mastery?
2. Are there statistically significant differences in the variation in MALL perception based on Gender?

METHOD

Design

This research employed an explanatory mixed methods approach. The mixed-methods sequential explanatory design involves two distinct phases: a quantitative phase followed by a qualitative one (Ivankova et al., 2006). Initially, researchers gather and analyze quantitative (numerical) data. In the subsequent phase, they collect and interpret qualitative (textual) data, clarifying or expanding upon the quantitative findings from the first phase. This qualitative phase is structured to build upon the quantitative phase, linking the two phases at the study's intermediate stage. The purpose of this design is that the quantitative data and its analysis offer a broad view of the research issue.

Participant

The sample of this study was 72 students, with 29 males and 43 females. They varied in age between 18 to 22 years, including 20 second-semester English department students, 14 fourth-semester English department students, 27 sixth-semester English department students, and 11 eighth-semester English department students from the faculty of education and teacher training at an Islamic higher education in Jambi, Indonesia. The total sampling was used to pick a sample for the research survey. The sample criterion was chosen because the participants had taken majoring in English vocabulary courses in one, three, five, and seven semesters and could apply their knowledge to complete the questionnaire effectively.

Table 1. The participants' demographic based on semester, gender, and age

<i>Semester</i>	<i>N</i>	<i>Gender</i>		<i>Age</i>
		<i>Male</i>	<i>Female</i>	
<i>Second</i>	20	6	14	18-19
<i>Fourth</i>	14	5	9	19-20
<i>Sixth</i>	27	14	13	20-21
<i>Eighth</i>	11	4	7	21-22
<i>Total</i>	72	29	43	

The researcher chose 10 students who consented to participate in the interviews, which the researchers conducted and recorded. Researchers keep respondents' identities secret with the pseudonyms Oliver, Thompson, Isabella, Clark, Emily, Grace, Sophia, Mia, Davis, and Wilson. The interview was purposively selected as the representation of various semesters. The sample criteria were chosen because participants agreed or strongly agreed on all questionnaire items, both in Usefulness (U) and Ease of Use (E).

Instrument

An adapted questionnaire from Davis (1993) was used to gather quantitative data. The questionnaire has two indicators. First, consider the Usefulness of MALL (U) views, which are divided into 11 items (1,2,3,4,5,6,7,8,9,10, and 11). The second focuses on MALL's perceived ease-of-use (E), which consists of 7 elements (12, 13,14,15,16,17, and 18). The items were based on User Acceptance of Information Technology (UAI). This was painstakingly produced and translated into Indonesian, the participants' initial tongue. An expert with a doctorate in English then evaluates the translated elements. The questionnaire consists of 18 items, then given to 72 students in the various semesters as study samples. The questionnaire included a Likert scale: 1 (Strongly Disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), and 5 (Strongly Agree), with 3.00 being neutral and less than 3.00 being low and very low (Liao, 2006). The indicator is accessible in Appendix 1.

Table 2. Likert scale table

<i>Scale</i>	<i>Option</i>
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree

The validity coefficient correlations $R\text{-table} = 0.39$ and reliability 0.60 were then assessed using SPSS 20 as the measurement standard. According to the findings, all 18 items show a correlation coefficient greater than 0.39 for validity and greater than 0.60 for reliability. Therefore, this questionnaire is appropriate for assessing student perceptions of MALL in fostering vocabulary mastery and is understandable by responders. To obtain more thorough replies from the participants, the researchers devised a semi-structured interview to gather qualitative data based on the topics covered in the questionnaire.

Data collecting technique

The data were collected around a month. Before beginning data collection, the researcher obtained permission from the head of the English Department and each person in charge in semesters two, four, six, and eight to participate in the research. As their reaction, contacting the head of the English Department and the individual in charge of managing the course is the validity of the available statements. Following clearance, the Google form link was distributed to selected students' WhatsApp groups to collect study data. The interviews were scheduled to run between fifteen and twenty minutes. The interviews were conducted in Indonesian since it was simpler for the participants to express themselves in their first language. After obtaining informed consent, the interviews were recorded on a mobile phone.

Data analysis technique

Descriptive statistics were employed to analyze the data. Responses collected via Google Forms were coded on a 1–5 Likert scale, saved in Excel, and analyzed using SPSS 20. Differences in male and female responses were examined using the Mann-Whitney U test. Results were presented in tabular form. Interview transcripts were analyzed thematically, a method useful for identifying patterns (Ayush Singh Rawat, 2021) and condensing large datasets (King, 2014). Phone interviews were recorded and coded in two phases, following Godwin-Jones (2017), to complement the quantitative findings. Thematic analysis followed Braun and Clarke's (2008) six-phase framework: familiarization, coding, theme identification, theme review, theme definition, and report writing. Interviews were categorized by topic, and participants reviewed transcripts to ensure accuracy and trustworthiness (Indrayadi, 2023; Indrayadi et al., 2024).

RESULT AND DISCUSSION**Result**

This section discusses the results of using questionnaire analysis to assess Davis' (1993) user acceptance of information technology, including MALL's usefulness and ease-of-use in fostering vocabulary mastery.

Students' perception toward the usefulness of MALL in fostering vocabulary mastery

This study examined respondents' perceptions of the usefulness of MALL for 11 items.

Table 3. Students' perception toward the usefulness of MALL (U)

No	Statements	Percentage (%)				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	<i>An electronic dictionary can improve my vocabulary mastery</i>	0	0	9,72	54,17	36,11
2	<i>The electronic dictionary makes it easier for me to master Vocabulary</i>	0	0	9,72	55,56	34,72
3	<i>Electronic dictionaries make it faster for me to do tasks related to Vocabulary</i>	0	0	6,94	50,00	43,06
4	<i>Electronic dictionaries can help improve my vocabulary comprehension skills.</i>	0	0	8,33	59,72	30,56
5	<i>Electronic dictionaries can increase efficiency in mastering my understanding.</i>	0	0	19,44	51,39	29,17
6	<i>I became more enthusiastic and active in learning English using an electronic dictionary.</i>	0	0	29,17	55,56	15,28
7	<i>By using an electronic dictionary on my mobile phone, I can improve my pronunciation of vocabulary mastery</i>	0	0	15,28	50,00	34,72
8	<i>Electronic dictionaries make it easier to understand things I didn't know before.</i>	0	1,39	6,94	56,94	34,72
9	<i>Using an electronic dictionary increases my confidence when learning languages.</i>	0	1,39	22,22	52,78	23,61
10	<i>Electronic dictionaries increase my motivation to learn languages</i>	0	2,78	13,89	51,39	31,94
11	<i>I believe that the Electronic Dictionary has great benefits in improving my vocabulary mastery.</i>	0	0	11,11	50,00	38,89

Table 3 shows the percentage of students that replied to each item on the questionnaire. Most participants agreed or strongly agreed with every item in the questionnaire. The third item received the most favorable answers (93%). This demonstrates that most students feel

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that using MALL for learning English vocabulary is very useful. Meanwhile, the sixth item had the lowest favorable replies (29%), with many students selecting "neutral" for this item. This demonstrates that many students not enthusiastic about using MALL may increase their vocabulary when the lecturer delivers vocabulary classes. On average, more than 85% of students agreed and strongly agreed that the usefulness of MALL can improve vocabulary mastery.

Follow-up interviews provided more data to support student comments. Each participant was given this data-collecting instrument to get student perceptions of MALL further and improve vocabulary mastery. It is used to verify the quantitative data. Qualitative data produces comparable findings to quantitative descriptive data. Students believe that learning using MALL is essential for learning English since it helps them acquire vocabulary.

The electronic dictionary helps me find synonyms and antonyms quickly, so my vocabulary becomes richer and more varied (Oliver).

I like using the favorite words list feature in the electronic dictionary, where I can save new words that I want to learn more about(Grace).

I usually use an electronic dictionary when reading English books or articles to quickly find the meaning of words I don't know and enrich my vocabulary (Mia).

However, the other 50% believe that MALL improves their vocabulary pronunciation.

Audio pronunciation in the electronic dictionary helps me know the meaning of a new word and how to pronounce it correctly (Davis).

As seen above, students stated that maintaining a good attitude toward vocabulary acquisition can help them enhance their English vocabulary proficiency. The findings revealed a strong link between the positive mindsets of students and their intrinsic drive to study the target language and their mastery of English Vocabulary and pronunciation. This is proven by most students choosing to agree and strongly agree. Then, it is reinforced by the interview results, which state features such as a list of favourite words and audio pronunciation with accent options.

Students' perceptions toward the ease of use of MALL in fostering vocabulary mastery

In this part, the ease-of-use MALL responses for seven items were examined. Their impressions of ease-of-use were acquired utilizing a Likert scale with five points with the options "strongly disagree," "disagree," "neutral," "agree," and "strongly agree."

Table 4. Students' perceptions toward the ease of use of MALL (U)

No	Statements	Percentage (%)				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	<i>learning to operate an Electronic Dictionary is easy.</i>	1.39	1.39	13.89	40.28	43.06
2	<i>Electronic dictionaries can help solve vocabulary problems that I do not know.</i>	0	1.39	11.11	44.44	43.06
3	<i>Electronic dictionaries have great potential to help improve my vocabulary mastery.</i>	0	1.39	9.72	50.00	38.89
4	<i>It is easy for me to master vocabulary using an electronic dictionary</i>	0	1.39	16.67	51.39	30.56
5	<i>Electronic Dictionary provides many opportunities for me to improve my vocabulary.</i>	0	1.39	11.11	52.78	34.72
6	<i>Electronic Dictionary provides text features that are easier to understand.</i>	0	2.78	13.89	45.83	37.50
7	<i>The Electronic Dictionary system is easy to use to improve vocabulary mastery.</i>	0	1.39	12.50	41.67	44.44

Table 4 indicated that almost all participants agreed or strongly agreed with each item on the questionnaire. The third item earned the majority of positive answers (88%). This demonstrates that most students believe MALL is simple for learning English vocabulary. Meanwhile, the sixth item showed that 2.78% of students selected to disagree or strongly disagree. It demonstrates that just a few students believe MALL is challenging to use. Based on the average accumulation above, more than 85% of students agree and strongly agree that MALL is easy to use to master Vocabulary.

To confirm the results of the questionnaires, interviews were conducted with each selected participant. In the interviews, most respondents stated that MALL is easy to use because of several features.

I like using an electronic dictionary because I can look up words by typing just a few letters, and the results appear immediately (Thompson).

The quick search feature of the electronic dictionary makes it easy for me to find the meaning of words and see example sentences, so my vocabulary expands easily (Isabella).

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7 out of 10 students believe that the MALL's ease of use makes it easier to see essential words at any time.

The word-saving feature on the e-dictionary is very useful. I can save new words that I learn and review them anytime (Sophia).

Based on the interview results, most respondents stated that using MALL was considered easy because of the features offered. The quick search feature on the electronic dictionary is recognized as making it easier for users to find the meaning of words quickly, as expressed by Thompson and Isabella. They appreciated the speed and ease of searching for words by simply typing a few letters, which immediately displayed the search results. It helps them understand the meaning of words and enriches their vocabulary. In addition, the word storage feature on the electronic dictionary is considered very useful by users such as Sophia because it makes it easy for them to save and review learned words. Of the 10 students interviewed, seven emphasized that the ease of use of MALL allows them to access essential words at any time. In conclusion, key features such as quick search and word storage make MALL more practical and effective in helping the language learning process.

Differences in perception of MALL in fostering vocabulary mastery concerning Gender

Table 5. Mann-Whitney U test for Usefulness of MALL Based on Gender

	Gender	N	Mean Rank	Sum of Ranks	Asymp. Sig. (2-tailed)
<i>Usefulness</i>	<i>Male</i>	29	37.34	1083.00	0.778
	<i>Female</i>	43	35.93	1545.00	
	<i>Total</i>	72			

Table 5 shows Asymp. Sig. (2-tailed) = 0.778 > 0.05 means no significant difference between males and females on the usefulness indicator.

Table 6. Mann-Whitney U test for Ease of Use of MALL based on Gender

	Gender	N	Mean Rank	Sum of Ranks	Asymp. Sig. (2-tailed)
<i>Ease of Use</i>	<i>Male</i>	29	36.16	1048.50	0.908
	<i>Female</i>	43	36.73	1579.50	
	<i>Total</i>	72			

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Table 6 showed no significant difference between males and females on the ease of use indicator. Asymp indicates this. Sig. (2-tailed) = 0.908 > 0.05.

Therefore, based on the quantitative and qualitative results, students indicated that MALL is practical and easy to use to improve vocabulary mastery. This is shown by more than 85% of students agreeing to agree and strongly agreeing with the Usefulness indicator and more than 85% agreeing and agreeing that MALL is easier to use. This is reinforced by the findings of the interview results, which stated that students felt MALL was very useful for improving their vocabulary. Moreover, the researcher also found no significant difference based on Gender in both research indicators. This is explained in the Independent Sample t-test and Mann-Whitney U test above.

Discussion

The results indicated that participants had a positive attitude regarding learning new English words, believing that mastering vocabulary would help their careers in the future and that students were ready to give longer to mastering vocabulary through mobile apps. This study's findings align with Ebadi and Bashiri (2021). Most of the participants in their study were enthusiastic about vocabulary acquisition with MALL since it may assist them in mastering their English Vocabulary. Dağdeler et al. (2020) also emphasize the significance of language learning. Thus, Fageeh (2013) used MALL to study the association between motivation and Vocabulary among English-speaking students. This is consistent with Al Arif et al. (2023), who found that students feel mobile applications can enhance their English abilities, especially vocabulary.

The data obtained from those who participated found that most of the participants accepted that using mobile apps was adaptable and straightforward when acquiring English vocabulary and that mobile applications/MALL were easy to use for acquiring English vocabulary, as these results related to what was discovered of Tri and Nguyen (2014) and Zhai (2023) that illustrated the benefits of MALL in acquiring the English language. Most participants thought that MALL-based applications made it easier to develop English vocabulary. Moreover, MALL removed the limitations of time and place in vocabulary learning, enabling learners to use mobile applications to study vocabulary whenever and wherever they choose. The study revealed that mobile applications were crucial in fostering

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learner autonomy in the learning process. These outcomes align with the Research by Shadieff et al. (2022), which also concentrated on the role of MALL in promoting autonomous learning. However, they focused more on developing frameworks for self-directed learning and acquiring English in novel environments.

Based on Xodabande and Hashemi (2023), both groups improved significantly in their understanding of vocabulary between the pre-test and post-test. Furthermore, employing e-textbooks on mobile phones had a substantial favorable influence, with the experimental group outperforming the control group in both the post-test and the delayed post-test. The qualitative findings demonstrated three perceived benefits of utilizing electronic textbooks: episodic learning, the convenience of access to information, and increased pleasure, all of which contributed to improved vocabulary acquisition using mobile-assisted approaches. The students added that they were inspired while acquiring English vocabulary through MALL, were positive about its use, and would suggest it to some as it may have assisted them in overcoming challenges they faced when carrying out vocabulary tasks due to the adaptability and ease offered by mobile apps (Deris & Shukor, 2019). In general, EFL students were highly positive about using MALL to acquire English vocabulary, believing that using contemporary technology would benefit them in the future and make issues simpler for them, as observed by scholars (Al Arif et al., 2023; Shanthi, 2016).

Furthermore, students who received digital learning, including a mobile application for language instruction, outperformed those who received conventional in-person education. In addition, the findings showed that students were satisfied with the application overall. The main reasons for their pleasure were enhanced vocabulary knowledge, simplicity, and enthusiasm (Polakova & Klimova, 2022). The study's participants expressed a positive attitude toward MALL in terms of strengthening lexical competence due to the incentive supplied by MALL-based apps to students when acquiring English vocabulary, as noted by Aziz and Fageeh (2013). Katemba (2021) discovered that pupils in the experimental group surpassed those in the control groups. It suggests that technology, notably MALL, significantly influences language acquisition in schools. In addition, it was clear that the goal of acquiring a second language was to utilize it to interact in everyday life. MALL offered

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incentives to do so by improving learners' preparedness, allowing them to speak in everyday situations (Tai, 2022).

Using devices was highly useful in obtaining authentic content for learning (Tri & Nguyen, 2014), as emphasized by Jeng et al., (2010), who noted that current devices are highly beneficial for students to get and utilize authentic information for their learning. In addition, Klopfer et al. (2002) emphasized the legitimacy of using online platforms while discussing the usage of PDAs in teaching. The current study's findings also revealed that, with an average of 4.13 answers, students believed in and used MALL to access authentic English language instruction content. Students had a favorable mindset toward using vocabulary applications for learning due to their widespread accessibility. This demonstrated students' favorable perspectives regarding utilizing MALL to improve their English Vocabulary, as it encouraged them and showed success in growing and increasing their vocabulary knowledge during their educational experience (Kohnke & Ting, 2021). The study's participants said MALL was critical in enhancing lexical competence since it supplied them with text translations, which eventually helped them increase their understanding of Vocabulary (Qiu & Lo, 2017).

CONCLUSION AND IMPLICATION

Conclusion

Those survey and interview techniques were used to investigate the usefulness and ease of use of MALL in fostering vocabulary mastery in university and to evaluate their opinion of it. The research also looked at how Gender and age influence the usage of MALL to increase students' vocabulary knowledge. According to the findings, students believe MALL is valuable and easy to use. Furthermore, this study found no statistically significant variations in students' ratings of the utility and convenience of use of MALLs based on Gender or age.

Following the research results, there are various instructional benefits for English students: (1) assessing how to make them more focused on the process of learning and teaching to increase their vocabulary mastery, (2) students can expect to be able to take part in learning experiences despite their location or time by using MALL, (3) there are many mobile applications that can easily capture their interest, make learning more enjoyable, and assist

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them in understanding the lesson, and (4) MALL makes it easier for students to improve vocabulary mastery.

Limitation

Nevertheless, this research has several limitations. Participants were drawn from only one Islamic university in Jambi, Indonesia. The small number of samples may influence the overall conclusions for the variables or themes investigated. Readers need to avoid projecting the study's findings outside the current context. Further analysis with samples of students from other universities is suggested.

Implication

This study highlights the potential of mobile-assisted language learning (MALL) to improve vocabulary acquisition by fostering student motivation and autonomy. Students' positive attitudes toward mobile apps suggest that integrating MALL into the curriculum can increase engagement and provide flexible, self-directed learning. Educators should consider MALL a primary tool to complement traditional methods, offering students greater control over when and where they learn. This study highlights the need for researchers to design easy-to-use apps that offer real-world language practice and interactive features to keep learners engaged. For lecturers, MALL is highly recommended for language learning because it makes the practice more effective and focused. Students are advised to start using MALL because it is more fun than traditional models, and its features are easy to use.

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APPENDIX-1

Statements of the indicators

Indicators	Statements
Usefulness (U)	U1. An electronic dictionary can improve my vocabulary mastery
	U2. The electronic dictionary makes it easier for me to master vocabulary
	U3. Electronic dictionaries make it faster for me to do tasks related to vocabulary
	U4. Electronic dictionaries can help improve my vocabulary comprehension skills.
	U5. Electronic dictionaries can increase efficiency in mastering my understanding.
	U6. I became more enthusiastic and active in learning English by using an electronic dictionary.
	U7. By using an electronic dictionary on my mobile phone, I can improve my pronunciation of vocabulary mastery
	U8. Electronic dictionaries make it easier for me to understand things that I didn't know before.
	U9. Using an electronic dictionary increases my confidence when learning languages.
	U10. Electronic dictionaries increase my motivation to learn languages
	U11. I believe that the Electronic Dictionary has great benefits in improving my vocabulary mastery.
Ease of Use €	E1. Learning to operate an Electronic Dictionary is easy.
	E2. Electronic dictionaries can help solve vocabulary problems that I do not know.
	E3. Electronic dictionaries have great potential to help improve my vocabulary mastery.
	E4. It is easy for me to master vocabulary using an electronic dictionary
	E5. Electronic Dictionary provides many opportunities for me to improve my vocabulary.
	E6. Electronic Dictionary provides text features that are easier to understand.
	E7. The Electronic Dictionary system is easy to use to improve vocabulary mastery.