Investigating Malaysian ESL Students' Insights into the Use of Smartphone Apps for Informal Language Learning

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ABSTRACT

Many students utilise mobile-assisted language learning (MALL) applications such as YouTube, TikTok, and Facebook in learning English as a Second Language (ESL). Although there are numerous studies on MALL in the higher education context, there has been a lack of research exploring its potential within the informal learning context in Malaysia. Employing a mixed-methods approach, the present study aimed to investigate how ESL students use MALL to develop their English language skills in informal learning settings and explore their perceptions and attitudes towards using MALL. Quantitative data were obtained through questionnaires filled out by 54 respondents and five interviewees participated in the semi-structured interview. The results of this study revealed that students responded positively towards using mobile apps in learning English. YouTube, TikTok, and Instagram emerged as the most frequently used apps for informal English language learning. The results of this research are expected to provide insights for language educators to incorporate MALL in their English classrooms.

Keywords: English as a second language, informal learning, higher education, mobile assisted language learning, smartphone apps

INTRODUCTION

Mobile-assisted language learning (MALL) has emerged as a significant technological approach in the English language learning (Borasheva, 2026). Hou and Aryadoust (2021) describe MALL as a flexible, continuing, adaptive language learning process in which language learners can easily access to learning content supported by portable mobile devices. Hence, in the present study, MALL is defined as the integration of handheld mobile devices into English language learning which can be accessed by ESL students 'anytime and anywhere'.

The use of MALL tools, including TikTok, YouTube, Telegram, WhatsApp, Gamification, podcasts, and Duolingo app in learning English language could significantly improve the language learning experience of ESL learners beyond the classroom boundaries. Empirical studies have reported the effectiveness of using MALL tools on the development of language skills, including speaking (Chaitanya, 2024), writing (Yucedal, 2023), listening (Azar & Nasiri, 2014; Chaitanya, 2024), and vocabulary (Alghasab, 2025; Kucuk & Daskan ,2024).

The technological tools not only improve learners' language skills but also boost learner autonomy and motivation (Levy & Stockwell, 2006). Furthermore, research findings indicated that ESL Malaysian postgraduates at Universiti Kebangsaan Malaysia (UKM) hold positive perceptions towards using smartphone apps because they are convenient, practical and easy way of assisting them in enhancing their ESL learning. The use of MALL also enables learners to access a wide range of information resources, supports self-directed and autonomous learning, offers flexibility for students to progress at their own pace, and minimises financial constraints for both teachers and learners by providing a cost-effective learning approach (Clorion et al., 2025).

Although MALL offers many benefits for language learning, there are several research designs that may hamper the reliability and actual applications of MALL such as the limitation of self-reported data, which might cause response bias and subjectivity (Alghasab, 2025) and lack of language skills investigation through experimental studies (Sung, Chang & Yang, 2015), for example findings from other study conducted by Yucedal (2023), with

on 60 Language Preparatory School students' writing competence at TISHK International University have shown that the researcher only measured the effects of MALL on writing skill. In addition, other issues arised such as short research durations, unequal sample sizes among experimental and control groups, and validity of the instrument (Hou & Aryadoust, 2021).

Existing research on the use of MALL in English language learning has largely focused on elementary or intermediate learners. However, limited studies have focused on utilising MALL in the context of self-directed learning or informal context among ESL diploma students at a public university in Malaysia. Thus, this study set out to investigate the types of smartphone language learning apps that students use in informal contexts for English language learning and their insights about using MALL to enhance their English language skills. Specifically, the study seeks to answer the following two research questions:

(i) What types of smartphone language learning apps do students use?

(ii) What are the perceptions of Malaysian ESL students toward using smartphone apps to develop their English language skills?

LITERATURE REVIEW

In this section, the related literature on online informal language learning and MALL, are reviewed.

Online Informal Language Learning

Livingstone (2021) explained that the learning process can be occurred in three different ways include formal education, non-formal education, and informal education. Formal education normally occurred in a structured way (teacher-centered) and involved a pre-established body of knowledge such as learning in university. On the other hand, non-formal education can be referred to acquiring further knowledge and skills, guided by instructors such as workshops and seminars. Meanwhile, informal education involves "any activity involving the pursuit of understanding knowledge or skill which occurs without the presence of externally imposed curricular criteria" (Livingstone, 2001, p.4).

Circa 1990, learners started learning and practising the new languages via digital communications and transcontinental travel such as satellite television, social media, online gaming, video streaming, and language tourism (Dressman, Toffoli & Lee, 2025). The rapid development of the Internet and technologies in the mid-2000s such as Myspace, Facebook, and YouTube have given the opportunities for people to connect and live interact with friends and strangers worldwide and it became a central feature of many language-learners' out-of-classroom lives (Dressman, Toffoli & Lee, 2025).

In this paper, the term online informal language learning refers to any language learning activities that ESL students engage in using smartphones apps that are small, autonomous, and unobtrusive enough to accompany them in every moment beyond formal class hours such as Instagram, YouTube, Duolingo and etc to enhance their English language. The following section discusses MALL and presents related empirical research findings.

Mobile Assisted Language Learning (MALL)

MALL can be defined as the learners' ability to effectively utilise a variety of devices such as smartphones, tablets, iPads or laptops to learn language informally, at any time and from everywhere (Duman et al., 2015) Smartphones support self-regulated language learning beyond traditional classroom settings, enabling learners to engage autonomously with authentic language content (Chung & Lo, 2025). MALL can be categorised into two including formal classroom-based learning and informal opportunities. In formal classroom-based learning, mobile devices are used in educational settings, while informal opportunities can be referred to utilising mobile apps and commercial platforms (Kessler et al., 2025). In this paper, the researcher focuses on informal opportunities which students use smartphone apps to learn the English language outside of the classroom. The following section presents research findings about using smartphone apps in language learning contexts.

Smartphone Apps and Language Learning

Extensive research has shown the effectiveness of MALL. The previous studies on Babbel, Duolingo and Rosetta Stone reported the positive impacts of MALL on ESL and English as a Foreign Language (EFL) learners' English language proficiency (Loewen et al. 2020 ; Jiang et al., 2021a, 2021b ; Lord, 2015; Vesselinov et al., 2019). In addition, a study by Chaitanya (2024) on 30 students at an institute of technology, Hyderabad, India also highlighted significant improvement in students' English proficiency through MALL tools which found that students liked interactive activities and tasks in MALL sources which significantly improved their understanding, self-exploration, confidence, listening and speaking skills. Besides, students could also choose the pace of their learning and comfort that led them to acquire language in natural settings using authentic listening and speaking materials used in online resources (Chaitanya, 2024). Moreover, Durán-Bautista (2021) discovered that the implementation of MALL, combined with note-taking strategies led to substantial improvement in students' oral English skills and they became more autonomous in learning by identifying and correcting their own mistakes for oral tasks. This is supported by Albogami and Algethami (2022) who found that WhatsApp could increase motivation and reduce the anxiety of EFL learners to practice speaking.

Apart from speaking and listening, some studies have been conducted about the effects of MALL on writing skills. For example, Yucedal (2023) conducted a study on 60 Language Preparatory School students' writing competence at Tishk International University concluded that students could brush up their writing skill dramatically via mobile technologies. Yucedal (2023) also contends that interaction was the most important finding in his study which shows students' teamwork and cooperation in decision making and correcting friends' mistakes collaboratively. Research findings also pointed to the effectiveness of MALL for vocabulary learning. Besides, the use of MALL such as Telegram app could enhance cognitive and psychological well-being of the learners. In 2023, Zheng et al. (2023) found that students who were studying English as a Foreign Language (EFL) in Shokouh Institute, Mashhad, northeast of Iran were actively learning their own assignments due to numerous chances offered by Telegram which improved their long-term viability, regularity adaptability, positive personal eligibility, and positive acceptance of academic life. In other words, the use of Telegram in language activities by ESL students increased their sense of autonomy and self-efficacy.

Despite the benefits of MALL, there are several challenges that hinder optimal use of MALL tools among students such as psychological issues, distractions from social media notifications, physical problems such as neck pain and headaches, lack of social interaction, poor time management, and technical issues such as poor Internet connection (Chaitanya, 2024). These findings are parallel with a study by Domingo, et.al (2025) which found that 51.4% of the 220 prospective English language teachers enrolled in Bachelor of Elementary Education (BEED) and Bachelor of Secondary Education (BSED) majors in English and Filipino claimed that small screens of mobile phones could hinder the language learning process because the materials are not readable due to small screens. In the same study, 69.7% of the respondents also expressed that they did not prefer to utilise MALL and abstain from the use of mobile phones for individual and self-directed learning (Domingo et,al. 2025). Furthermore, MALL research identified several limitations in research design that may negatively impact the reliability and actual applications of MALL. The limitations include short number of learners that could affect the generalizability of the findings (Zheng et al., 2023).

METHODOLOGY

This study is a mixed-method design. The methodological steps involved are described as following:

Participants

A total of 54 ESL students (24 males and 34 females) majoring in different disciplines at a public university in Malaysia participated in the study. The age of the learners varies from 18 to 22 years old. The participations in this study were completely voluntarily, and they were fully informed about the study. All participants' names were changed and anonymised in the data records to protect their rights and privacy.

Instruments

To explore students' perceptions of using smartphone apps in learning English, a mixed-method approach was employed. A questionnaire was utilised to gather quantitative data, while qualitative data were obtained through semi-structured interviews.

Questionnaire

The questionnaire is adopted from Alghasab (2025). Specifically, this questionnaire aims at investigating students' choices and usage of smartphone apps outside the classroom context and the nature of students' perceptions towards using smartphone apps such as personalisation, development of language skills and areas of linguistic knowledge, authenticity, and connectivity. The questionnaire consisted of 3 items on multiple-choice questions, 21 items on a 5-point Likert scale ranging from (1) strongly disagree to (5) strongly agree, and 2 items on open-ended questions.

Semi-structured Interviews

Semi-structured interviews were conducted to collect the qualitative data to gain students' further detailed insights. For qualitative data collection, semi-structured interviews were conducted with the following questions:

1. Can you describe how you personalize your learning when using smartphone apps?
2. Are there features in the apps that you find helpful for tailoring your learning to your needs?
3. Do you find the tasks or content in these apps similar to what you encounter in real-world language situations?
4. Can you give an example of an authentic task from an app that you found helpful?
5. How do these apps help you connect with teachers, peers, or native speakers?
6. Have online interactions through these apps contributed to your learning? In what ways?
7. What motivates or discourages you when using smartphone apps for language learning?
8. Are there features you wish these apps had to better support your language development?

Data collection procedures and analysis

The data analysis involved both quantitative and qualitative approaches. 54 participants answered the questionnaire which was sent to the participants via Google Form. The students' responses were subsequently moved to Google Forms and utilised for the quantitative data analysis. This study employed descriptive statistics to illustrate usage patterns and frequency of the types of mobile language apps use in learning English language, as well as to provide an overview of students' perceptions regarding the utilisation of smartphone apps to develop their English language skills.

Furthermore, semi-structured interviews were conducted for qualitative data. 5 participants were randomly selected for the interview, and they agreed that their responses could be audio-recorded for this study. In order to interpret the quantitative findings further and provide insights into participants' perceptions of MALL in enhancing their English language skills, a thematic analysis approach was employed to identify common themes and patterns in open-ended questions and the interview transcripts (Braun & Clarke, 2006).

FINDINGS AND DISCUSSION

This section presents the results from the questionnaire and interview. The main objective of this inquiry is to determine the insights of ESL diploma students on the types of smartphone language learning apps they utilise in the context of the language learning process.

Students' Choices and Usage of Smartphone Apps outside the Classroom Context

Figure 1 shows the types of smartphone apps that students commonly use and their frequency patterns. Based on the data, it was observed that both YouTube (87%) and TikTok (87%) are the most widely used platforms, with 47 students utilising each for learning language outside of the classroom (see Figure 1). In addition, Instagram (61%) is used by 33 students, and Google Translate (57.4%). In contrast, both traditional language learning apps like Duolingo and BBC Learning English are only used by 14.8% students each. A small number of students reported using other apps, including Learn English Vocabulary (22.2%), Twitter (20.4%), Snapchat (14.8%), and Quizlet (7.4%). Despite the popularity of apps such as Orai, Rosetta Stone, Cambly, and Babbel, none of the students reported using these apps for language learning.

By observing data in Figure 1, it can be seen that there was a strong preference for social media and video-sharing platforms such as YouTube, TikTok, and Instagram over dedicated language apps like Duolingo for learning the English language informally. The results of the present study could be in line with the findings of Alghasab (2025) who found that YouTube, TikTok, and Instagram emerged as the most frequent used apps by students at the College of Basic Education in Kuwait for informal English language learning. The figures in this study also hinted that students heavily favour short-form and long-form video content. This suggests that modern language acquisition is highly visual and context driven. One of the interviewees stated that:

"I like to watch YouTube, Twitter, and Netflix to improve my writing, spelling, and grammar. It is more like visual learning" (Interviewee 2)

Moreover, many students choose YouTube, TikTok and Instagram are likely due to opportunities like reading comment sections, participating in discussions, and interacting with native speakers in English language which makes the language feel alive and relevant.

In addition, it was revealed that a small number of students prefer to use dedicated language apps like Duolingo and Learn English Vocabulary compared to social media such as YouTube and TikTok to learn English language informally. The result of this study is not in accordance with Jiang, et.al (2021) who found that Duolingo can be an effective tool for learning a foreign language and listening skills. It is probable that students prefer to use apps that provide entertainment, relevance, and efficiency for learning English language as compared to Duolingo which requires a dedicated time commitment for a structured, gamified curriculum, whereas this demographic clearly prefers tools that seamlessly integrate into their existing digital habits.

This study also shows that students were not interested to use paid premium services like Babbel, Rosetta Stone, and Cambly. This indicates that they may prefer free, engaging, and entertainment-integrated platforms over structured learning environments. This is proven by Ashilah, et al. (2025) who revealed that some interviewees thought that there is no high urgency to switch to the premium version of the MALL because their needs have been met when using the free version of MALL.

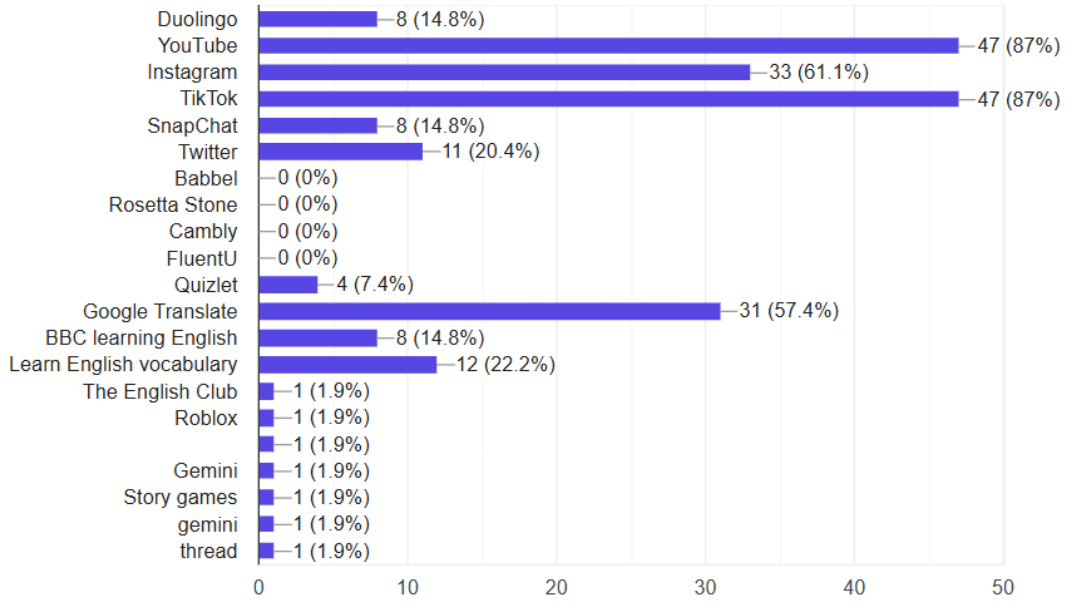

Figure 1: Students' usage frequency of smartphone apps

Students' Perceptions of Using Smartphone Apps

Smartphone Apps and Personalized Learning

Students' perspectives about using smartphone apps for personalised learning are presented in Table 1. Generally, students think smartphone language learning apps as highly effective tools for personalised learning. Based on the five statements, the mean scores ranged from 3.65 to 4.04 on a five-point Likert scale, indicating high levels of agreement. The highest rated statements (a3, a4, and a5) suggest that students believe smartphone applications support personalised English language learning by enabling them to access learning materials at their convenience, engage in self-paced learning, and develop independent learning skills beyond the classroom. This is in line with Alghasab (2025) who discovered that students valued the effectiveness of smartphone apps in supporting anytime-anywhere personalised learning and the development of language skills. Domigo, et,al. (2025) also found that a majority of the respondents positively identified the numerous advantages of MALL such as easy access to various sources of information, promotes self-directed and independent learning, and provides students with the flexibility to learn at their own pace.

The high agreement levels observed in statement a3 indicated students highly believe that smartphone apps allow students to learn the language at their convenience (mean 4.04), and promote self-paced, personalized learning outside the classroom (mean=3.85) and support independent learning (3.85). The least strongly rated statement (a2) still reflects a majority belief that smartphone apps extend their language learning experience beyond the language classroom (61.2%).

Based on the interview data, most of the participants stated that they like using smartphone apps such as TikTok and YouTube due to flexibility and easy access to English. This is consistent with Shanthi et al. (2025) who discovered that students valued the important role of TikTok in learning vocabulary. For example, one participant in this study claimed that social media platforms enable him to access English language content according to his personal interests:

"I love using TikTok and YouTube, obviously. I can watch them anytime. I love to watch content from America to improve my English. I also save the videos." (Interviewee 1)

Another participant stated that MALL app contributes to her language development:

" I enjoy watching movies on Netflix during my free time. Usually, I read the subtitles to understand what the actors and actresses say. This helps me improve my grammar, vocabulary, and pronunciation." (Interviewee 4)

Moreover, an interviewee stressed on the accessibility of mobile learning:

"Using mobile apps such as TikTok and YouTube allows me to learn English and develop my language skills with just a few clicks on my mobile phone." (Interviewee 5)

The interview findings reveal that students actively personalise their learning by choosing digital content that matches their interests. The ability to access authentic English language materials at their own pace enables them to engage in continuous language practice beyond formal classroom instruction. This flexibility not only promotes learner autonomy but also encourages lifelong learning.

Overall, the findings suggest that smartphone applications effectively support personalised English language learning by providing ESL students with flexible access to authentic learning resources, encouraging self-directed learning, and fostering independent learning habits. Thus, the integration of smartphone applications into language learning therefore has the potential to complement English language classroom instruction and create more learner-centred learning environments.

Table 1. Using smartphone apps for personalised learning

Personalisation													
		Strongly disagree		Disagree		Neutral		Agree		Strongly agree			
	Questionnaire statements	F	%	F	%	F	%	F	%	F	%	Mean	Std. Deviation
a1	Smartphone language learning apps give immediate support to my language learning	0	0	1	1.9	14	25.9	27	50	12	22.2	3.92	0.75
a2	Smartphone language learning apps extend my language learning experience beyond the language class.	0	0	3	5.6	18	33.3	28	51.9	5	9.3	3.65	0.73
a3	Smartphone language learning apps enable me to learn the language at any time and from any place	1	1.9	2	3.7	11	20.4	20	37	20	37	4.04	0.95
a4	Smartphone language learning apps enable me to have self-paced, personalized language	0	0	3	5.6	14	25.9	25	46.3	12	22.2	3.85	0.83

	learning outside the classroom.												
a5	Smartphone language learning apps provide opportunities to act independently in learning the target language	0	0	1	1.9	18	33.3	23	42.6	12	22.2	3.85	0.79

Smartphone Apps and Language Skills Development

Table 2 shows the results of students' insights about using smartphone apps for language learning. As shown in Table 2, students expressed positive attitude towards using language learning apps for enhancing their English language skills such as vocabulary, grammar, writing, reading comprehension, and speaking. Most students agree and strongly agree that smartphone language apps can be effective for learning and improving their English vocabulary (mean=3.96), as well as grammar and writing (mean=3.94). The results support the findings of Kucuk and Daskan (2024), who reported that Mobile-Assisted Language Learning (MALL) significantly enhanced students' vocabulary acquisition and contributed positively to their academic achievement.

In addition, the results show that, students strongly disagree (20.4%) and disagree (25.9%) with b8 (mean= 2.59). Furthermore 20.4% of students strongly disagree and 22.2% disagree with b10 (mean= 2.63). The findings indicate that some participants believe that smartphone apps can be helpful in improving their listening skills and learning correct pronunciation. The results also suggest that smartphone apps play a supportive role in developing oral language skills. There are many language learning applications that provide authentic audio materials, speech recognition technology, and pronunciation feedback, enabling learners to listen to native speakers repeatedly and practise pronunciation at their own pace. These features promote self-directed learning and allow students to improve their listening comprehension and pronunciation outside the classroom. This finding is consistent with previous studies which reported that using WhatsApp can have the potential for enhancing EFL learners' speaking performance, boosting their motivation and attitude towards speaking, and decreasing their anxiety and fear of making mistakes when speaking (Albogami & Algethami, 2022).

The qualitative findings shows that students utilise various smartphone applications such as YouTube, TikTok, Novel Master, and Google Translate to improve their English language skills. The participants stated that:

" There are a lot of content on YouTube which can be used for educational purposes. Usually, I search for grammar and vocabulary content to be used in my essays. I can also learn many new words on YouTube." (Interviewee 3)

"I think watching movies or videos on YouTube or TikTok is very useful for improving my speaking skills and grammar." (Interviewee 4)

Furthermore, another interviewee described the mobile-learning applications support her English language development:

"I read novels on Novel Master. It helps me improve my writing and reading skills. I also always use Google Translate to translate some texts from Malay into English, especially when I want to write an English essay." (Interviewee 5)

Overall, the findings suggest that students highly value smartphone applications as effective tools for developing English language skills, particularly vocabulary, grammar, and writing, listening, and speaking.

Table 2. Using smartphone apps for language learning

Development of language skills and areas of linguistic knowledge													
		Strongly disagree		Disagree		Neutral		Agree		Strongly agree			
	Questionnaire statements	F	%	F	%	F	%	F	%	F	%	Mean	Std. Deviation
b6	Smartphone Language learning apps can be effective for learning and improving my knowledge of English vocabulary.	0	0	1	1.9	15	27.8	23	42.6	15	27.8	3.96	0.80
b7	Smartphone Language learning apps can be effective for learning and improving my knowledge of English grammar and writing.	0	0	2	3.7	14	25.9	23	42.6	15	27.8	3.94	0.83
b8	I don't think that Smartphone language learning apps can be effective for improving my listening skills.	11	20.4	14	25.9	16	29.6	12	22.2	1	1.9	2.59	1.11
b9	Smartphone Language learning apps can be effective for improving my reading comprehension skills.	0	0	1	1.9	15	27.8	29	53.7	9	16.7	3.85	0.71
b10	Smartphone Language learning apps cannot be effective for learning the correct pronunciation of English words.	11	20.4	12	22.2	18	33.3	12	22.2	1	1.9	2.63	1.10
b11	Smartphone language learning apps can be effective for improving my speaking skills.	0	0	2	3.7	14	25.9	27	50	11	20.4	3.87	0.78
b12	Smartphone language learning apps enhance my interaction with	1	1.9	1	1.9	15	27.8	29	53.7	8	14.8	3.78	0.79

	others in the English language.												
b13	Smartphone language learning apps can be effective in developing my cultural awareness of the foreign language.	0	0	2	3.8	11	20.8	31	58.5	9	17	3.89	0.72

Smartphone Apps, Authenticity, and Connectivity

Students' feedback on the three statements about smartphones' effectiveness in offering an authentic language learning experience are presented in Table 3. The results show a clear positive trend with mean scores above 3.50. Statement c16 has the highest mean score (3.81), suggesting that students feel the use of these apps adds authenticity to their learning process. Additionally, many participants generally agree (14.8%) or strongly agree (50%) that smartphone language learning apps enhance their willingness to write in English when participating on social media.

The findings of the study may be attributed to authentic digital environments that encourage students to apply their language skills in genuine communicative situations rather than solely for academic purposes. Social media platforms such as Instagram, TikTok, Facebook, and Discord enable students to express their ideas, communicate with friends, and engage with authentic audiences from different linguistic and cultural backgrounds which provide meaningful opportunities for students to practise English in real-life contexts, that increase their confidence, motivation, and willingness to communicate. For instance, an interviewee described that WhatsApp facilitates both written and spoken communication in English language:

"*I often use WhatsApp to text my classmates. Sometimes we use video calls on WhatsApp. I think using WhatsApp can help me improving my pronunciation, grammar, vocabs, and also enhancing my speaking and listening skills*" (Interviewee 2)

Besides, a participant explained that social networking applications encourage her to write in English:

"I have many friends on Instagram. But usually, I send messages or leave my comments on my best friend's Instagram using English language" (Interviewee 4)

These responses demonstrate that students naturally integrate English into their daily online interactions, allowing them to practise the language beyond formal classroom setting. This is consistent with Chung and Lo (2025) who claimed that MALL enables students to engage autonomously with authentic language content beyond traditional classroom settings.

Overall, students have positive attitudes about the effectiveness of smartphones in improving their English language skills by engaging in authentic language experience.

Table 3. Smartphone apps and authenticity

Authenticity													
		Strongly disagree		Disagree		Neutral		Agree		Strongly agree			
	Questionnaire statements	F	%	F	%	F	%	F	%	F	%	Mean	Std. Deviation
c14	Smartphone language learning apps enhance my	0	0	1	1.9	25	46.3	23	42.6	5	9.3	3.59	0.69

	willingness to participate in English language discussions												
c15	Smartphone language learning apps enhance my willingness to write in English when participating on social media platforms.	0	0	2	3.7	17	31.5	27	50	8	14.8	3.76	0.75
c16	Smartphone language learning apps enhance the authenticity of my language learning resources and activities.	0	0	0	0	18	33.3	28	51.9	8	14.8	3.81	0.68

Apart from exposing students to authentic language content and supporting authentic language experience, Table 4 shows the analysis of smartphone apps and connectivity revealed significant findings. The results revealed that students support the use smartphone apps in connecting them with other English native speakers.

The data showed the highest agreement was recorded for item d17 (mean=3.91) indicating that learners strongly believe that the apps help them to improve their interaction with others in the target language. Furthermore, participants also showed high agreement towards statements d21 (mean=3.85) and d18 (mean=3.76) revealed that they believed the smartphone apps assist them to integrate their language learning experiences both inside and outside the classroom and facilitate connection with native speakers.

The results of this study aligns with Chung and Lo's (2025) who found that Hong Kong students preferred to use MALL that offer opportunities for collaboration, peer interaction and meaningful social engagement. Furthermore, the findings also may be explained by the interactive features embedded in many smartphone applications such as Instagram, Telegram, WhatsApp, TikTok and etc, including instant messaging, discussion forums, video conferencing, voice calls, and online communities. The interactive features allow students to communicate with English speakers regardless of geographical boundaries, creating opportunities to practise the language in authentic social contexts. For examples, the participants said:

"I use Discord to interact with my friends or pen pals. Discord is an app where you can connect with everyone. By using Discord, I can communicate with my friends globally. This can improve my speaking skills." (Interviewee 1)

"I always join TikTok Live, just for fun. There are a lot of people from other countries. I enjoy watching them share ideas, comments, stories, and new knowledge. Many people also watch me speaking on TikTok Live." (Interviewee 3)

Overall, the results demonstrate that students believe smartphone apps are powerful tools for facilitating social and communicative connectivity within the English language learning context. Therefore, it is suggested English educators to incorporate socially interactive apps into language teaching in Malaysia to promote sustained motivation and effective language development among ESL students.

Table 4. Smartphone apps and connectivity

Connectivity													
		Strongly disagree		Disagree		Neutral		Agree		Strongly agree			
	Questionnaire statements	F	%	F	%	F	%	F	%	F	%	Mean	Std. Deviation
d17	Smartphone language learning apps enhance my interaction with others in the target language	0	0	1	1.9	14	25.9	28	51.9	11	20.4	3.91	0.73
d18	Smartphone language learning apps enhance my connection with peer learners of the target language	0	0	1	1.9	18	33.3	28	51.9	7	13	3.76	0.70
d19	Smartphone language learning apps connect me with speakers of the language	0	0	2	3.7	19	35.2	26	48.1	7	13	3.70	0.74
d20	Smartphone language learning apps enhance my connection with the target language community	0	0	1	1.9	20	37	27	50	6	11.1	3.70	0.69
d21	Smartphone language learning apps make my language learning experience in and outside the class more connected	0	0	0	0	17	31.5	28	51.9	9	16.7	3.85	0.68

In conclusion, the current investigation intended to shed light on the types of smartphone language learning apps that students use in informal contexts for English language learning and their perspectives about using MALL to improve their English language skills. The study revealed that ESL students have sufficient understanding and knowledge of the plethora of benefits that MALL offers toward English language learning in informal context. They generally hold positive perspectives towards the utilisation of smartphone apps such as YouTube, TikTok, and Instagram to improve their English language skills beyond the traditional classroom. Furthermore, the students believe that the use of MALL, particularly socially oriented smartphone apps such as TikTok and YouTube can support their English language development and provide opportunities for them to interact with English native speakers informally.

However, there are some limitations of the study. First, this study is limited to self-reported data which may cause difficulty to draw any strong conclusion regarding the actual effectiveness of the smartphone applications. Second, the small size of respondents, only 54 students participated in the study which limit the generalizability of the findings in this study. Despite these limitations, there are several implications based on the current study's findings. English educators and curriculum designers should incorporate mobile apps into English language instruction by implementing interactive activities to boost students' motivation to learn English language and

help them enhancing English language skills. Additionally, English educators can also conduct workshops or digital literacy modules to teach students using interactive smartphone applications.

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REFERENCES

1. Albogami, A., & Algethami, G. (2022). Exploring the Use of WhatsApp for Teaching Speaking to English Language Learners: A Case Study. Arab World English Journal (AWEJ) 2nd Special Issue on Covid 19 Challenges (2) 183-201. DOI: https://dx.doi.org/10.24093/awej/covid2.12
2. Alghasab, M. B. (2025). The Use of Smartphone Apps for Informal Language Learning Among EFL Students: Focusing on Students' Choices, Purposes, and Perceptions. Arab World English Journal, 16(4): 64-89. https://dx.doi.org/10.24093/awej/vol16no4.4
3. Ashilah, F.D. et al. 2025. "An Analysis of Factors Impacting Users' Choice of Freemium or Premium Servicesin a Mobile-Assisted Language Learning App", Electronic Journal of e-Learning, 23(1), pp 66-80,https://doi.org/10.34190/ejel.23.1.3894
4. Azar, A. S., & Nasiri, H. (2014). Learners' attitudes toward the effectiveness of mobile assisted language learning (MALL) in L2 listening comprehension. Procedia - Social and Behavioral Sciences, 98, 1836–1843. https://doi.org/10.1016/j.sbspro.2014.03.613
5. Borasheva, A. (2026). Student engagement and language learning in a flipped ESP classroom: The role of Telegram. Social Sciences & Humanities Open, 13, 102382. https://doi.org/10.1016/j.ssaho.2025.102382
6. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa
7. Chaitanya, E. K. (2024). The Use of Mobile Assisted Language Learning (MALL) for the Language Enrichment of Learners at the Graduation Level. Rupkatha Journal 16:4. https://doi.org/10.21659/rupkatha.v16n4.02
8. Chung, B., & Lo, N. (2025). Comparative study of self-regulated English learning through mobile language-learning applications in post-pandemic Hong Kong and South Korea. Smart Learn. Environ. 12, 42. https://doi.org/10.1186/s40561-025-00399-w
9. Clorion, F. D. D., Fuentes, J. O., Suicano, D. J. B., Estigoy, E. B., Serdenia, J. R. C., Alejandrino, P., Albani, S. E., Idris, D. L., Paclibar, D. T., Torres-Toukoumidis, A., & Alieto, E. O. (2025). Smartphones and syntax: A quantitative study on harnessing the role of mobile-assisted language learning in the digital classroom and applications for language learning. Procedia Computer Science, 257, 7–14. https://doi.org/10.1016/j.procs.2025.03.004
10. Domingo, A. R. F., Clorion, F. D. D., Lauzon, L. D. S., Tanpoco, M. R., Estigoy, E. B., Torres-Toukoumidis, A., Eijansantos, A. M., Maturan, E. F., Rillo, R. M., Pantaleon, C. E., Francisco, C. I., Delos Santos, M. R., & Alieto, E. O. (2025). Are future teachers 'tech-savvy'? A correlational study on attitudes and perceptions of mobile-assisted language learning in the era of digitalized education. Procedia Computer Science, 263, 147–155. https://doi.org/10.1016/j.procs.2025.07.019
11. Dressman, M., Toffoli, D., & Lee, J. S. (2025). Developing a cross-case, time-ordered analysis of informal language learning from ethnographic narratives. Research Methods in Applied Linguistics, 4(1), Article 100190. https://doi.org/10.1016/j.rmal.2025.100190
12. Duman, G., Orhon, G., & Gedik, N. (2015). Research trends in mobile assisted language learning from 2000 to 2012. ReCALL, 27(2), 197–216. https://doi.org/10.1017/S0958344014000287
13. Durán-Bautista, D. C., & Huertas-Malagón, S. P. (2021). Mobile phones-assisted practice and note-taking in foreign language oral production. International Journal of Mobile and Blended Learning, 13(2), 1–22. https://doi.org/10.4018/IJMBL.2021040104
14. Hou, Z., & Aryadoust, V. (2021). A review of the methodological quality of quantitative mobile-assisted language learning research. System, 100, Article 102568. https://doi.org/10.1016/j.system.2021.102568

15. Jiang, X., Chen, H., Portnoff, L., Gustafson, E., Rollinson, J., Plonsky, L., & Pajak, B. (2021a). Seven units of Duolingo courses comparable to 5 university semesters in reading and listening [white paper]. Duolingo research report DRR-21-03. Retrieved from https://duolingo papers.s3.amazonaws.com/reports/duolingointermediate-efficacy-whitepaper.pdf.
16. Jiang, X., Rollinson, J., Chen, H., Reuveni, B., Gustafson, E., Plonsky, L., & Pajak, B. (2021b). How well does Duolingo teach speaking skills [white paper]?. Duolingo research report DRR-21-02. Retrieved from https://duolingo-papers.s3.amazonaws.com/reports/duolingo-speaking-whitepaper.pdf
17. Kessler, M., Loewen, S., & Gönülal, T. (2025). Mobile-assisted language learning with Babbel and Duolingo: Comparing L2 learning gains and user experience. Computer Assisted Language Learning, 38(4), 690–714. https://doi.org/10.1080/09588221.2023.2215294
18. Kessler, M., Ferronato, T., Torres Centurion, M. J., Akay, M., & Kim, J. (2025). Mobile-assisted language learning with commercial apps: A focused methodological review of quantitative/mixed methods research and ethics. Research Methods in Applied Linguistics, 4(1), Article 100186. https://doi.org/10.1016/j.rmal.2025.100186
19. Kucuk, T., & Daskan, A. (2024). Mobile Assisted Language Learning (MALL) in Vocabulary: A Study on Tishk Language Preparatory School Students. Arab World English Journal, 15(4): 255- 266. https://dx.doi.org/10.24093/awej/vol15no4.16
20. Levy, M., & Stockwell, G. (2013). CALL dimensions: Options and issues in computer-assisted language learning. Routledge.
21. Livingstone, D. W. (2001). Adults' Informal Learning: Definitions, Findings, Gaps, and Future Research. *NALL Working Paper #21*. Toronto: Centre for the Study of Education and Work, OISE/University of Toronto
22. Loewen, S., Isbell, D. R., & Sporn, Z. (2020). The effectiveness of app-based language instruction for developing receptive linguistic knowledge and oral communicative ability. Foreign Language Annals, 53(2), 209–233. https://doi.org/10.1111/flan.12454
23. Lord, G. (2015). "I don't know how to use words in Spanish": "Rosetta stone" and learner proficiency outcomes. The Modern Language Journal, 99(2), 401–405. https:// www.jstor.org/stable/43650036.
24. Shanthi, A., Paramasivam, S., Ling, C. G., & Tong, T. J. (2025). TikTok videos as a catalyst for vocabulary acquisition in tertiary education. International Journal of Social Science Research, 13(1), 1-15. https://doi.org/10.5296/ijssr.v13i1.22287
25. Sudina, E., & Plonsky, L. (2024). The effects of frequency, duration, and intensity on L2 learning through Duolingo: A natural experiment. Journal of Second Language Studies, 7(1), 1–43. https://doi.org/10.1075/jsls.00021.plo
26. Sung, Y.-T., Chang, K.-E., & Yang, J.-M. (2015). How effective are mobile devices for language learning? A meta-analysis. Educational Research Review, 16, 68–84. https://doi.org/10.1016/j.edurev.2015.09.001
27. Vesselinov, Roumen, Grego, J., Sacco, S. J., & Tasseva-Kurktchieva, M. (2019). The 2019 rosetta stone efficacy study [white paper]. Retrieved from http:// comparelanguageapps.com/documentation/The2019_RS_FinalReport.pdf
28. Yucedal, H.M. (2023). Integrating mobile assisted language learning (MALL) into EFL classes at a tertiary level. Amazonia Investiga, 12(62), 92-14. https://doi.org/10.34069/AI/2023.62.02.7
29. Zheng, X., Ismail, S. M., & Heydarnejad, T. (2023). Social media and psychology of language learning: The role of Telegram-based instruction on academic buoyancy, academic emotion regulation, foreign language anxiety, and English achievement. Heliyon, 9(5), e15830. https://doi.org/10.1016/j.heliyon.2023.e15830