

# **On the Efficacy of Instant Messaging Apps: ESL Students' Learning Experience in Hybrid Classrooms**

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**Abstract:** In hybrid learning, both in-person and remote learners receive the same learning experience simultaneously. Thus, it is the utmost importance for instructors to maintain the balance of learning experience received between these two groups of learners during the session. Studies have shown that mobile applications such as instant messaging apps in smartphones have been utilised by instructors to carry out their hybrid learning requirements. However, not many studies have been carried out on the efficacy of instant messaging apps in Malaysian learning environment. Thus, this study intends to fill the gap by examining students' thoughts and experiences on the application of instant messaging apps and its efficacy in ESL hybrid learning sessions. 82 undergraduate students from a public university in Malaysia took part in the study. The data were obtained from a survey questionnaire that gauged the students' perceptions on the impacts of the apps on their learning and the effectiveness of the features offered by the apps in mediating the classroom needs. The findings indicate that students perceived the use of instant messaging apps as positive as it could support communication, collaboration, engagement with course materials, and class discussion. The findings have significant pedagogical implication in terms of incorporating technology and providing support for effective hybrid learning.

**Keywords:** EFL classroom, Effectiveness, Hybrid learning, Instant messaging apps, Perception

## **Introduction**

Hybrid learning is often ill-defined as similar to blended learning. However, there is a marked difference between these two in terms of the learners and their locations. The blended learning approach combines traditional in-person classroom instructions with online learning activities. In this approach, the learners learn both synchronously and asynchronously. The hybrid learning approach, on the other hand, provides a platform that caters to the need of those who cannot physically attend a designated learning space. Thus, in this kind of learning, some learners will attend the class in-person while others attend it virtually.

The recent trend in education requires educational institutions to stay updated and accessible to the myriad of multi-background students. Thus, hybrid learning has become increasingly prevalent in education especially in this digital age due to its flexibility, accessibility, and cost effectiveness that allow learners to attend classes in-person or online from anywhere. In other words, in hybrid learning, both in-person and remote learners receive the same learning experience at the same time. Thus, it is the utmost importance for instructors to maintain the balance between these two groups of learners during the session.

The hybrid learning model integrates various educational technologies and online resources to

supplement and enhance the traditional classroom experience. One of the popular hybrid learning approaches is through mobile learning. Shi et al (2017) stated that the ubiquity of mobile communication networks and the widespread use of smartphones have led to the pervasive integration of mobile Internet applications into every facet of users' lives. The mainstream of online education now revolves around mobile education, offering personalised learning scenarios, tactile experiences of interacting with mobile device screens, voice outputs, and other functional advantages (Shi et al., 2017). The incorporation of a myriad of features in messaging apps, including video calls, audio clip sharing, and file sharing, has facilitated a richer educational experience.

Studies have shown that messaging apps in smartphones have been utilised by instructors to carry out their hybrid learning requirements (Gyane, 2021; Meredith, 2019; Wang & Morgan, 2015; Wang et al., 2008). The most utilised messaging apps include SMS, Facebook groups, Twitter, WhatsApp, and Telegram. A statistics done by Howe (2024) for Malaysia found out that the most used instant messaging app in Malaysia is WhatsApp, followed by Telegram and other messaging apps. Among Internet users, the reasons to use Internet include education and study-related purposes.

Studying students' perceptions on the effectiveness of messaging apps in hybrid classrooms is crucial to meet learners' needs and preferences. Through understanding on how students perceive these tools, educators can enhance motivation, engagement, and communication skill development. Positive perceptions may lead to increased enthusiasm and participation, while real-time feedback through messaging apps can offer valuable language practice opportunities. To sum up, exploring students' perspectives on messaging apps in EFL classrooms informs effectiveness of technology use, benefiting language learning experiences. Studies have also shown that using instant messaging apps in hybrid learning classroom has positively impacted students' engagement and active learning experiences (Gyane, 2021; Meredith, 2019; Shi et al., 2017; Wang et al., 2008). However, in Malaysia, particularly in ESL classrooms, the extent to which students perceive the efficacy of these specific features in enhancing their learning experiences within a hybrid classroom remains underexplored. Addressing this gap is important for educators and instructional designers in seeking to optimise the integration of messaging app features, ensuring that students' preferences and perceptions aligned with the objectives of a hybrid learning environment.

This study, therefore, aims to bridge this knowledge gap by gauging the perceptions of ESL learners on the efficacy of mobile messaging apps on their learning experience. The students' perceptions in this study centred on i) the satisfaction on the use of messaging apps, ii) the impact of the use of messaging apps on learning experience, and iii) the features that mostly enhance learning experience. These can be best expressed by the following research questions:

- i. What is the overall satisfaction on the use of messaging apps in hybrid learning?
- ii. How do students perceive the impact of the use of messaging apps on their learning experience?
- iii. Which features of the messaging apps enhance the students' learning experiences the most?

## **Literature Review**

It does not come as a surprise that the current teaching and learning requires technological aids. According to Hashim (2018), students in the digital era possess distinctive traits. They exhibit proficiency in technology, favour social media communication over face-to-face interactions, prefer hands-on learning over passive instruction, and show a greater inclination towards visual content such as images, graphics, and videos. Additionally, they expect materials to be delivered promptly and efficiently. The current students in higher education are known as Gen Z or the digital natives. Gen Z is characterised as those who were born between the late 1990s and early 2000s. This generation has been raised in an environment characterised by high technology, instant access, constant connectivity, and a sense of impatience (Ishak et al., 2022). Generation Z has been immersed in platforms like YouTube, e-learning, webinars, smart boards, and smartphones, potentially contributing to their shorter attention spans (Nicholas, 2020). Students from this generation possess specific learning styles and preferences. Educating Gen Z presents challenges, as educators must depart from traditional teaching methods and explore diverse strategies to effectively capture their imagination, engage their

interests, and enhance their comprehension (Cilliers, 2017). Ishak et al. (2022) found that Gen Z students prefer a multimodal learning style in which it combines multiple learning styles into one. It is possible for a student to be a kinesthetic learner and a visual learner at the same time. Among the many learning styles, kinesthetic learning is the most preferred learning style. Kinesthetic learners excel in learning through actions, experiences, movements, and tactile engagement. They prefer hands-on activities (Pinchot & Poullet, 2014). The digital natives' learning preference through mobile instant messaging revolves around the fact that it involves extensive finger movements as well as accommodating multimodal style learners who are also visual, auditory, and tactile.

The main factors that can assist Gen Z in education are Internet and technology. The current education emphasises on the development of information and communication technologies. One of the ways to implement digital mediums and technology in education is through hybrid learning. In hybrid learning, online components are integrated into face-to-face courses. The purpose of mixed mediums (online and face-to-face) is to take full advantage of both platforms to enhance students' learning experiences and offer opportunities that foster greater engagement and understanding (Meydanlioglu & Arikan, 2014). Hybrid learning goes beyond just merging online and face-to-face instructions. It revolves around maximising the attainment of learning goals by employing tailored learning technologies that suit individual needs at the appropriate moment. Hybrid learning designs exhibit considerable diversity, influenced by factors such as course content, student demographics, course objectives, instructor preferences, and technological resources at hand (Vaughan & Garrison, 2005). Research findings indicate that hybrid learning outperforms both fully online and face-to-face models in higher education (Elsissy, 2013). To gauge the impact of hybrid learning, numerous researchers had analysed students' attitudes and satisfaction concerning both modalities. It was found that the use of online courses in higher education increases students' course satisfaction (Meydanlioglu & Arikan, 2014). Along the same line, Elsissy (2013) suggested that utilising a hybrid lecture instruction approach could be a preferable choice for undergraduate students. In a separate study, Park (2011) found that the hybrid format for lab-based classes offers a positive learning experience for students. Another study by Dowling et al (2003) examined the correlation between students' learning outcomes and two teaching approaches: traditional face-to-face and hybrid flexible delivery. The findings revealed that the hybrid flexible delivery model exhibited a stronger positive correlation with students' final grades and enhanced learning outcomes.

Mobile instant messaging apps have been popular means of communicating in recent years. According to Sun et al (2017), there were about 1.48 billion users of instant messaging apps in 2013 in China alone while Mistar and Embi (2017) stated that about 97% Malaysians were using WhatsApp. It was found that Whatsapp had around 600 million registered users and there were 10 billion sent messages daily on Whatsapp (Caro-Alvaro et al., 2018). There are also alternative messaging apps such as Telegram, WeChat, and LINE that have experienced a surge in usage and maintained their competitive edge by consistently introducing innovative methods to engage users both inside and outside classrooms. Each of these platforms possesses distinct characteristics that impact its appropriateness for educational purposes.

In a study by Caro-Alvaro et al, (2018), it was concluded that instant messaging applications should have at least the following main features and functionalities. The main functions are sending instant messages, reading and replying to incoming messages, creating chatrooms, deleting messages or chats and some others. As for the latest version of WhatsApp and Telegram, users are even allowed to edit their sent messages. The current WhatsApp and Telegram also allow users to send and receive images, videos, audio, documents, emojis, and stickers as well as supporting voice or video calls. They are also supported not only on the mobile phones but are also on the web or as a computer application. Consequently, the integration of instant messaging apps in education should be considered essential. Shi et al (2017) found that students' interest peaked in mobile assisted English learning. Students actively interacted with peers and instructors using text and voice messages. It is considered as a new way of learning for students. It also nurtures a strong sense of confidence for students as the confidence in writing and speaking in English has improved. This shows that the functions of the instant messaging apps play a crucial role in its effectiveness of aiding an EFL classroom. In a study by Nuraeni and Nurmalia (2020), the study uncovered that WhatsApp facilitated quicker and was more convenient in communication between teachers and students for academic purposes. It enabled students to share various types of information, such as images, audio files, and

videos, through its features. Additionally, WhatsApp actively engaged students in recognising e-learning activities, presenting another advantage of its use. The students acknowledged that instant messaging apps such as WhatsApp is a good English learning platform and that it possesses features such as sending and receiving texts, images, audios, videos, and documents.

Many studies have shown that integrating instant messaging platforms such as WhatsApp, WeChat, and Telegram, as teaching tools has notably enhanced the learning process (Shi et al, 2017). Shi et al (2017) reported that the use of WeChat nurtures the students' interest, motivation and confidence in English learning. The virtual language immersion allows students to communicate in English as thoroughly as possible. Similarly, Annamalai (2019) concluded that the WhatsApp chat group could serve primarily for sharing information regarding assignments and exam procedures, as well as exchanging basic ideas and course-related knowledge. Wang and Morgan (2008) put forward that employing instant messaging for synchronous online chapter discussions significantly increased students' perception of their interactions with the instructor, both during and outside of classrooms. The participants reported to have a greater extent of guidance and encouragement from the instructor regarding class assignments, along with a heightened sense of the instructor's concern for their progress. Additionally, the study revealed that the use of instant messaging enhanced students' reciprocity and cooperation during online discussions, leading to a greater likelihood of sharing ideas and understanding of the learning topics. Awada (2016) also examined the efficacy of WhatsApp in language education, asserting that teaching writing skills through WhatsApp is proved to be more effective than traditional instruction methods. Additionally, it heightened learners' motivation levels. It was suggested that WhatsApp could foster a positive social atmosphere, promoting a feeling of belonging within a community or team comprising fellow learners and the instructor, while also alleviating anxiety. Gyane (2021) found in a study that a significant percentage of students found Telegram to be a useful tool for storing educational materials. Teachers often utilize Telegram to share class materials before and after lessons, aiding in pre-reading and post-learning access. This proactive approach enhances student understanding and engagement. Telegram is praised for its convenience in the learning process, contributing to increased students' efficiency. While some students appreciated the feedback received via Telegram, acknowledging its role in improving their work, there were varying opinions, with a few students expressing concerns about feedback focusing only on surface-level aspects. Despite this, many students found Telegram beneficial, especially in English as a Foreign Language (EFL) settings where English is not used in daily conversation. Xodabande (2017) utilised Telegram features to teach pronunciation to Iranian EFL learners. The primary aim of this study was to investigate the feasibility of instructing foreign language learners in the accurate pronunciation of frequently mispronounced English words using a locally popular social media platform. Mistar and Embi (2016) found that the attitudes towards the use of WhatsApp were at a high level mainly due to ease of use, ease of learning, usefulness, quick sharing of knowledge and information, and its help in the discussion.

## **Methodology**

This is a quantitative study, using a survey questionnaire as the means of data collection. The research instrument was adapted from Gyane (2021), and it gauged students' perceptions on the use of instant messaging apps in hybrid learning on the impact of the apps on their learning and the effectiveness of the features offered by the apps in mediating the classroom needs. The research instrument was piloted to determine its validity and the Chronbach's Alpha score of 0.85 indicates its validity and reliability. The Five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree) was used to record the participants' responses.

The current study employed a purposive sampling technique where only students who underwent the hybrid learning process were identified. The instructors and students were briefed of the objectives of the study and invitation was extended to take part in the study. 82 students from four groups of an English course took part in the study. In their learning process, all students had equal chance of learning through face-to-face and online platforms. For those who were having classes online, the lectures were broadcasted using Telegram's live function. Course materials and exercise documents were distributed via WhatsApp group and Telegram group. In addition, discussions were

also conducted using WhatsApp and Telegram apps. Besides, students were also encouraged to use the editing function on WhatsApp and Telegram, and some exercises required students to submit video and audio assignments using WhatsApp and Telegram functions.

The data were collected after the participants had completed the course for one semester. The questionnaire was distributed online, and the participants could access it within one month via the link provided.

Statistical analysis in the form of frequency and mean were carried out on the data using SPSS Version 28.0. To assist the interpretation of the data, findings of the Likert scale were categorised into high (3.68 – 5.00), moderate (2.34 – 3.67), and low (1.00 – 2.33) levels as shown in Table 1 below.

**Table 1.** Mean Score and Level of Perception

Total Mean Score	Level of Perception
1.00 – 2.33	Low
2.34 – 3.67	Medium
3.68 – 5.00	High

## Findings and Discussion

The analysis indicates that 82 participants consisted of 33 male and 49 female students. 80 of them (97.6%) are between eighteen to twenty years old while only two (2.4%) are in the range of twenty one to twenty three years old. Being part of the Gen Z, these participants were characterized as internet-savvy, thus, all of them are very familiar with the use of instant messaging apps, especially WhatsApp and Telegram. Having gone through the online learning process during the movement control order due to the COVID-19 restrictions between 2020 and 2021, all of the participants had experienced using the instant messaging apps in the learning process. Table 2 summarises the demographic background of the participants.

**Table 2.** Summary of demographic characteristics

Variable	Category	Number
Gender	Male	33 (40.2%)
	Female	49 (59.8%)
Age	18 – 20 years old	80 (97.6%)
	21 – 23 years old	02 (2.4%)
Experience using messaging apps for learning	> 1 year	03 (3.7%)
	1 – 3 years	29 (35.4%)
	4 – 5 years	50 (61.0%)
Messaging apps used for learning	WhatsApp	71 (44.7%)
	Telegram	67 (42.1%)
	Others	21 (13.2%)

As can be seen from Table 2, all participants have had between less than a year (3 or 3.7%), 1 to 3 years (29 or 35.4%) and 4 to years (50 or 61.0%) experience in using the messaging apps in learning. As for the types of apps used, both the WhatsApp and Telegram apps top the list with the former having a slightly higher number of users (71 or 44.7%) than the latter (67 or 42.1%). The WhatsApp apps is popular among users as generally, it is the most used instant messaging platform for social interaction. Thus, users would just use this application for educational purposes as well. Telegram is also used as a learning platform as it can cater larger number of group participants and has a bigger capacity for sending and receiving learning documents and materials. Other messaging

apps used include Facebook Instant Messaging, WeChat, SnapChat, and Instagram. 21 or 13.2% of the participants used these apps for learning purposes. This is in line with previous studies that show WhatsApp and Telegram were the most commonly used messaging apps in learning. Annamalai (2019) found a growing body of research that reported the popularity of WhatsApp in online learning. Additionally, Sivabalan and Ali (2019) reviewed studies that had revolved on higher learning institutions mainly focus on WhatsApp and Telegram. They found that out of 40 reviewed studies, 33 studies were on WhatsApp while the remaining studies were on other apps like the Telegram.

*Students' satisfaction on the use of messaging applications in hybrid learning*

Overall, the analysis leans towards positive perception on the use of messaging apps in the hybrid learning experience. The result shows that most of the participants (M=3.91) are satisfied with the use of messaging apps in the hybrid learning experience. A number of participants are satisfied in the use of the applications in a hybrid learning experience as the apps allowed them to receive and download learning materials from the instructors (M=3.67). The features of the apps enable them to edit and complete the tasks and assignments, as well as submitting them to the instructors. Previous studies also showed that students tend to have very satisfactory experience while using mobile apps to assist learning (Nuraeni & Nurmalia, 2020).

**Table 3.** Students' satisfaction on the use of messaging applications in hybrid learning

No	Statement	Mean
1	Overall, how satisfied are you with the use of messaging apps in your hybrid learning experience?	3.91
2	Hybrid learning has improved my access to course content and resources.	3.67
<b>Mean score</b>		<b>3.79</b>

*Students' perception on the impact of the use of messaging apps on learning experience*

The analysis shows that the participants had a very high level of positive perception on the impact of the use of the messaging apps on their learning experience. This is indicated by the general mean score obtained (M=3.92) in the second section (impact of messaging apps on learning) of the questionnaire. Table 4 summarises the students' perceptions on the impact of the use of the messaging apps on their learning.

**Table 4.** Students' perception on the impact of messaging apps on learning

No	Statement	Mean
1	The use of messaging apps like WhatsApp or Telegram has enhanced my learning experience in the hybrid classroom.	3.96
2	I find messaging apps easy to use for communication and collaboration with classmates and instructors.	4.07
3	Messaging apps have improved my engagement with course materials and discussions.	3.87
4	I feel more connected with my peers and instructors through the use of messaging apps.	3.77
<b>Overall Mean</b>		<b>3.92</b>

As shown in Table 4, all of the statements score high level of perceptions with statement 2 “I find messaging apps easy to use for communication and collaboration with classmates and instructors” as the highest (M=4.07). This is followed by statement 1 “The use of messaging apps like WhatsApp or Telegram has enhanced my learning experience in the hybrid classroom” (M=3.96), statement 3 “Messaging apps have improved my engagement with course materials and discussions” (M=3.87) and statement 4 “I feel more connected with my peers and instructors through the use of messaging apps” (M=3.77).

The participants’ overwhelming satisfaction over the use of the messaging apps is related to their styles and preferences in communication (as per statements 2 and 4 in Table 4). Gen Z grows up in a digital world, thus, they naturally embrace digital communication of which they prefer app-based communication that allows them to multitask across multiple screens (Hughes, 2022). In addition, this generation prefers informal communication rather than lengthy and formal communication like in-person communication or emails. The messaging apps can provide emojis, GIFs, voice notes, and videos to exchange ideas and responses.

Being the digital native, Gen Z students generally prefer more visual and kinaesthetic learning styles (Issacs et al., 2020). As they prefer active learning, they become more engaged with the resources and materials that are made available on the online platforms. In addition, Gen Z learns by doing and through a variety of modes, including texts, images, videos, and interactive exercises. Thus, this supports the participants’ immense satisfaction on the use of messaging apps in learning as shown in Table 4 for Statement 1 and Statement 3.

### **Features of the messaging apps that enhance the students’ learning experience**

Gen Z prefers active and independent learning. Thus, the participants find that the features offered by the messaging apps can greatly facilitate and accommodate their learning style and preference. This is indicated by the high level of mean score the features of the messaging apps that enhance the participants’ learning (Mean score=3.97). Table 4 summarises the students’ perceptions on the impact of the use of the messaging apps on their learning.

**Table 5.** Students’ perception on features of messaging apps that enhance learning

<b>No</b>	<b>Statement</b>	<b>Mean</b>
1	Video call or live video features in messaging apps are useful for virtual discussions and meetings.	3.98
2	Sharing audio clips through messaging apps enhances the learning experience.	3.82
3	The ability to share files through messaging apps is convenient for exchanging course materials and class assignments.	4.13
4	I make use of the messaging apps' editing function to proofread, revise, and format for academic purposes.	3.95
<b>Overall Mean</b>		<b>3.97</b>

As shown in Table 5, the mean score for Statement 1, Statement 2 and Statement 3 show that the participants positively perceive features that allow collaborative learning in enhancing their learning (M=4.13, 3.98 and 3.82 respectively). This supports the learning preferences of the Gen Z. Although they prefer independent and intrapersonal learning, the availability of online collaborative tools like discussion platforms has inherently made them engaged in collaborative learning (Isaacs et al., 2020), thus, it enhances their learning as a whole.

In addition, the participants also perceived the multi-media features in the messaging apps could enrich their learning experience. This is in line with a study done by Granitz et al (2021) which found that Gen Z liked video-based learning materials over traditional textbooks as they found the latter more engaging. They found the the integration of technology and multimedia content, learning

through images, videos, and audios is important in developing their learning skills. Thus, they perceived the messaging apps features such as videos, audios, and file-sharing as important tools. Previous studies have also reported similar findings (Mosca et al, 2019; Seemiller & Grace, 2016, 2017)

Besides, the current findings reveal the participants' positive perception on the editing features offered by messaging apps in enhancing learning experience. This is shown by the high score of M=3.95 for Statement 4. The participants perceive the messaging apps as an open avenue that can facilitate their academic skills. Thus, the participants find this feature as a tool that enables them to work independently and become autonomous learners.

## Conclusion

The findings of this study contribute to the body of knowledge on the use of messaging apps in the learning process. In particular, it delves into the Gen Z's perceptions on the efficacy of the employment of messaging apps in hybrid classroom. Because of their immersion in the digital platforms, the participants of the current study have confirmed their preferred style and approach towards learning.

This study indicates the importance of technology in education as it can enhance the students' learning experience, particularly when the digital natives are involved. The findings have significant pedagogical implication in terms of incorporating technology and providing support for effective hybrid learning. The participants' overwhelming satisfaction on the use of messaging apps in their learning has provided evidence that educators should be aware of their preferences and consider adopting such technology in the teaching and learning process.

## Co-Author Contribution

The authors have declared that there is no conflict of interest in this article. Author 1 carried out the data collection and conducted analyses of the data. Author 2 wrote the analysis, discussion of the findings, conclusion, and recommendations sections, and was responsible for the critical revision of the write up for submission of the final manuscript.

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