

Understanding English Learning by EFL Students in Informal Digital Learning of English^{1,2}

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Abstract

Informal Digital Learning of English (IDLE) is the result of the affordances of technology that allow learning to take place in unstructured learning contexts. However, how IDLE facilitates students' English language learning remains unclear. This study aims to investigate the strategies English as a foreign language (EFL) students employ to learn English knowledge while doing IDLE, as well as how they practice the knowledge to improve their mastery of the English language. This study employed a phenomenology approach and recruited 16 participants from an Indonesian state university to better comprehend their experiences with IDLE. The researchers employed semi-structured interviews and inductive thematic analysis to examine the data. The findings revealed that EFL students employed various strategies in a variety of online and offline activities as found in formal learning while doing IDLE, primarily to remember linguistic features such as vocabulary, phrases, expressions, and pronunciation. In addition, they participated in such activities to improve their communication and writing skills only. Four implications of conducting IDLE to promote English language learning success are also discussed.

Resumen

El Aprendizaje Digital Informal del Inglés (IDLE) es el resultado de las posibilidades que ofrece la tecnología para el aprendizaje en contextos no estructurados. Sin embargo, aún no está claro cómo el IDLE facilita el aprendizaje del inglés en los estudiantes. Este estudio busca investigar las estrategias que emplean los estudiantes de inglés como lengua extranjera (EFL) para adquirir conocimientos de inglés mientras realizan IDLE, así como cómo practican estos conocimientos para mejorar su dominio del idioma. El estudio empleó un enfoque fenomenológico y reclutó a 16 participantes de una universidad estatal de Indonesia para comprender mejor sus experiencias con el IDLE. Los investigadores emplearon entrevistas semiestructuradas y análisis temático inductivo para examinar los datos. Los hallazgos revelaron que los estudiantes de EFL emplearon diversas estrategias en diversas actividades en línea y fuera de línea, similares a las del aprendizaje formal, mientras realizaban IDLE, principalmente para recordar características lingüísticas como vocabulario, frases, expresiones y pronunciación. Además, participaron en estas actividades únicamente para mejorar sus habilidades de comunicación y escritura. También se discuten cuatro implicaciones del IDLE para promover el éxito en el aprendizaje del inglés.

Introduction

Web 2.0 technologies and network connectivity have reinforced the massive practice of dynamic teaching in mobile learning environments (Jie & Sunze, 2021). Recent studies also suggest that these technologies bring a wide opportunity for learning the second language beyond the classroom (Lamb & Arisandy, 2020; Lee et al., 2021; Xodabande, 2017) in extramural digital context, constituting informal digital learning of English (IDLE). IDLE enables current English as a foreign language (EFL) students to engage in unstructured language learning in non-classroom settings by utilizing the most modern technological tools (Lee, 2019c; Lee et al., 2021). For instance, EFL students use social media platforms to communicate in English (Lee, 2019c; Lee et al., 2021) or watch movies and *YouTube* videos to learn English linguistic features (Lamb & Arisandy, 2020; Wang & Chen, 2020). IDLE is therefore currently gaining popularity in English language learning because it provides less stressful environments than traditional instruction does.

Recent evidence suggests that IDLE has been implemented globally for a variety of English language learning purposes, utilizing a variety of activities. IDLE has been implemented in South Korea (Lee & Dressman, 2018; Lee & Lee, 2021), France (Socket & Toffoli, 2012), Turkey (Dincer, 2020), Taiwan (Wang & Chen, 2020), Denmark (Jensen, 2017), Iran (Xodabande, 2018), and Indonesia (Lamb & Arisandy, 2020;

¹ The data presented in this article were derived from research conducted and reported in a separate report publication. This article serves as a summary and interpretation of the research findings and does not substitute for the complete information provided in the original scholarly work (Ningsih, 2023)

² This is a refereed article. Received: 24 April, 2023. Accepted: 11 July, 2023. Published: 24 July, 2025.

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Rahmawati et al., 2019). In addition, EFL students' IDLE activities include listening to English songs, searching for information online, watching English videos online, chatting and video calling on social media, and playing games (e.g., Kusyik, 2017; Lamb & Arisandy, 2020; Lee et al., 2021; Sockett & Toffoli, 2012; Sundqvist, 2019; Trinder, 2017). These activities are usually implemented to improve both meanings and forms, including English language skills (listening, speaking, reading, and writing), vocabulary, and grammar knowledge (see Hamat & Hassan, 2019; Kusyik, 2017; Lee, 2019a; Lee & Dressman, 2018; Sockett & Toffoli, 2012; Sundqvist, 2019).

Despite the growing interest of EFL students in implementing IDLE, there are still two unanswered questions: (1) what strategies do EFL students use to acquire English knowledge while using IDLE, and (2) how do they practice this knowledge while using IDLE to improve their English language skills mastery. It is due to the fact that previous studies have only described the IDLE activities of EFL students (e.g., Jurkovič, 2019; Lamb & Arisandy, 2020; Lee, 2019b,c; Lee & Dressman, 2018) and asserted that IDLE is responsible for the improved English proficiency, despite questionable evidence and unclear investigation. For example, Lee (2019b,c) reported that South Korean EFL students appeared to communicate in English with their friends via *Facebook*, *KaKao Talk*, and *LINE*, but it was not specified how this communication facilitated English language learning. Moreover, for a decade, IDLE research concentrated extensively on its relationship with affective domains, such as motivation, (Lamb & Arisandy, 2020; Lee & Lee, 2021), willingness to communicate (Lee, 2019c; Lee et al., 2021), enjoyment (Lee et al., 2022), and self-regulated learning (Wang & Chen, 2020), and as a consequence, these statements were never studied.

In light of the existing gaps, the purpose of this study is to explore the strategies EFL students use to acquire English knowledge while doing IDLE and how they apply that knowledge to improve their English language proficiency. EFL teachers could use this information to suggest to their students the use of appropriate strategies when doing IDLE to facilitate English language learning, how to practice the knowledge, and in what activities the knowledge could be implemented. Consequently, this study seeks to address the following overarching research questions:

1. What strategies do EFL students do to acquire English knowledge while doing IDLE?
2. How do EFL students practice the knowledge to improve English language skills?

Literature Review

Informal digital learning of English

Informal digital English learning describes the autonomous and informal English learning of students in digital contexts (Lee, 2019c) where EFL learners can use both web 2.0 technology and digital materials and activities (Harju et al., 2019). IDLE is completed on a voluntary basis and is not evaluated by teachers because it is completed outside the classroom (Lee, 2019c; Lee et al., 2021). IDLE provides EFL students with less stressful English language learning environments to facilitate their language learning, and as a result, it encourages them to engage in this form of informal learning.

Informal digital learning of English is frequently used interchangeably with other terms that have a similar meaning. For instance, IDLE is frequently misunderstood as extramural English, a digital representation of out-of-class English activities (Sundqvist & Sylven, 2016; Sundqvist & Olin-Scheller, 2013). IDLE is also confused with online informal learning of English, which describes language learning through online activities (Sockett, 2014; Sockett & Toffoli, 2012; Toffoli & Sockett, 2015). However, Soyoo et al. (2021) distinguished that IDLE is the umbrella term for the other two, as IDLE is more inclusive and not limited to online technology; it also encompasses offline technology in informal English language learning.

The implementation of informal digital learning of English

As the interest of EFL students in informal English and technology grows, numerous attempts have been made to investigate the implementation of IDLE, yielding insightful data regarding the activities that EFL students conducted in relation to informal English learning using technology. For example, Sockett and Toffoli's (2012) study sheds light on IDLE and reveals that five French students learned English by listening to English songs, conducting online research, and watching online English videos. Even though listening to English music and watching English films may not be novel activities during IDLE, previous research has consistently shown that EFL students in other countries engage in these activities (see Kusyik, 2017; Trinder, 2017). Sockett and Toffoli also reported that these students utilized social media for informal learning, including Facebook, Twitter, and Myspace. Using social media is a surprising trend of IDLE for EFL students,

as this activity has been identified in recent research (e.g., Dincer, 2020; Kusyk, 2017; Lamb & Arisandy, 2020; Lee, 2019b, c; Lee & Dressman, 2018). For example, Lee (2019b, 2019c) reported that South Korean EFL students appeared to use *Facebook*, *KaKao Talk*, and *LINE for IDLE*. Other studies also reported that EFL students learned English from *TED-talks* (Lee & Dressman, 2018), *YouTube* (Lamb & Arisandy, 2020; Wang & Chen, 2020), and even from playing digital games (Lamb & Arisandy, 2020; Sundqvist, 2019) in addition to social media. With these various IDLE activities, EFL students have numerous opportunities to improve their cognitive and affective domains by engaging in IDLE based on their personal preferences.

The influence of IDLE on the cognitive and affective domains of EFL students has been the subject of a growing body of research in recent years. Sockett and Toffoli (2012) as well as Hamat and Hassan (2019) reported that EFL students used IDLE to improve their English language skills, vocabulary, and grammar mastery in the cognitive domain. In addition, Lee and Dressman (2018) conducted a study with 94 South Korean students and found that they utilized IDLE for meaning-focus and form-focus objectives. In the affective domain, Lee (2019c) found that 98 South Korean students' willingness to communicate could be enhanced by engaging in social media activities. Moreover, using social media for IDLE correlates with learning motivation (see Kamal et al., 2021; Lamb & Arisandy, 2020; Lee & Lee, 2021). Besides motivation, IDLE also promotes enjoyment (Lee et al., 2022), self-confidence (Lee, 2019c), and self-regulated learning (Wang & Chen, 2020).

Regarding what EFL students do to acquire English knowledge and how they practice that knowledge to improve their mastery of English language skills, the findings of a number of studies have shed some light but still provided insufficient details. Sockett and Toffoli (2012), for example, reported that five French students could improve their English language skills and mastery of linguistic features by paying close attention to movie dialogues to learn sentence structures, pronunciations, and new words and expressions. However, Sockett and Toffoli did not provide any information regarding how students remember these linguistic features and in which activities they utilized them to enhance their English proficiency. In Lee and Dressman's (2018) study, they reported a participant, Suja, who played online games, watched many animated movies and dramas in English, and studied with a foreign English teacher via *Skype*. This information was unclear because Lee and Dressman did not explain in detail how Suja improved her English through IDLE, but one plausible explanation they provided was that Suja improved her English because she was required to read numerous instructions in English while playing the games. However, it is possible that Suja's English improved not because of IDLE but because of her foreign English teacher's teaching via *Skype*. Thus, this study did not provide clear information regarding how Suja's use of IDLE facilitated her English language learning. In the same vein, Lee (2019c) reported that the Korean EFL students with overseas experience that he recruited participated in chats and video calls on social media with foreigners, but he did not specify how the students improved their English proficiency or how they applied what they had learned in IDLE. It is possible that these participants' English improved not due to their use of IDLE, but because they had travelled abroad and learned English through interaction with native speakers. However, Sundqvist's (2019) study involving 1,609 survey respondents and 16 interviewees provided a more plausible explanation. Despite the fact that Sundqvist frequently asserted that gaming experiences affected the participants' English and vocabulary skills, he also noted that the participants were required to write extensively in the chat box while playing the games. Thus, it was implied that writing in English while using IDLE improved English proficiency. The findings of Wang and Chen's study (2020) with 20 university students suggest that they occasionally took notes on important information and frequently added *YouTube* videos to their playlists to facilitate English language learning. Even though the aforementioned studies described the types of IDLE that EFL students engaged in, they failed to provide in-depth information on how learners improved their English proficiency through IDLE and how they applied the knowledge they gained through IDLE.

Research Methods

Research design and setting

This qualitative study used a phenomenology approach to describe the participants' lived experiences of a phenomenon to gain a comprehensive understanding (Merriam & Tisdell, 2016). The phenomenon observed in this research was the EFL students' experiences with IDLE, particularly the strategies they used to acquire knowledge and how they practiced the knowledge to improve their English language skills mastery. The researchers conducted this study at an Indonesian state university because EFL students at this institution reported using IDLE to improve their English proficiency. In addition, these EFL students asserted that they

had been doing this type of informal learning for years, bringing with them a wealth of experience to support the investigations in this study. In addition, the researchers' affiliations to this university facilitated their ability to contact potential participants.

Participants

Before approaching the participants, the researchers applied for institutional review board approval to conduct this research at the state university where they were affiliated. After receiving approval, the researchers contacted the head of the English Language Department at an Indonesian state university to obtain permission to approach the students. Before recruiting participants, the researchers explained the risks and benefits of participating in the study. The researchers used a purposive sampling with the following criteria: (1) had been using IDLE for years, (2) could recall the IDLE activities they frequently engaged in, and (3) were able to describe their experience while using IDLE, including what they did to improve their English proficiency while using IDLE and how they applied the knowledge they gained from it. Initially, 25 students expressed interest in participating in this study; however, only 16 participants (male = 8, female = 8) with different language proficiency and from different semesters met the inclusion criteria and consented to participate. All participants had been studying English for more than nine years, and the average age of the participants was 21. At the time of the interview, they claimed to be engaging in three to four types of IDLE. The participants were identified with pseudonyms to preserve their confidential information. The demographic information of the participants is summarized in Table 1 below.

Gender	Ages	Kinds of IDLE conducted	Years of doing IDLE
Male (n=8)	20 (n=10)	Watching <i>YouTube</i> , <i>Chat</i> and <i>Video</i>	< 3 years (n=3)
Female (n=8)	21 (n=6)	calls on <i>WhatsApp</i> , <i>Instagram</i> , joining English webinars, playing online games	3-5 years (n=6) > 5 years (n=7)

Table 1: Participants' demographic information

Methods of data collection and instruments

In order to collect data, the researchers utilized semi-structured interviews via *WhatsApp* voice calls, as the participants felt more at ease with online interviews during the COVID-19 pandemic. The researchers developed a protocol consisting of eleven interview questions to explore participants' experiences with IDLE. They were submitted for review by an expert in the field of educational technology. Finally, only small changes were made, primarily to clarify the questions. The researchers then reached out to the participants and scheduled interviews with them. Participants were interviewed in English because they spoke the language fluently. In addition, each participant was interviewed twice over the course of two months, with each session lasting approximately 40 minutes. The first session focused on exploring participants' experiences on doing the activities that improved English mastery when doing IDLE and the second one focused on exploring what activities the participants did to apply the knowledge they attained from doing IDLE. The online interviews via *WhatsApp* were recorded using a recorder application with participants' permission. To ensure credibility and reliability, the researchers transcribed the interview results and took notes during the interviews as a method of triangulation to confirm the participants' statements. Before using the transcripts for analysis, they were sent back to the participants for validation before being used for analysis.

Methods of data analysis

The researchers analysed the interview findings using inductive thematic analysis to generate relevant themes (Braun & Clarke, 2006) that reflected the participants' experiences of facilitating English language learning and mastery through IDLE. As they analysed the data, the researchers carefully read through each transcript, taking notes on any pertinent details, potential snippets for coding, and potential themes. Before comparing the data analysis, two researchers carefully identified the codes and themes pertinent to the research topic. The researchers also employed the interview notes to support their data analysis. Initially, the researchers identified 167 codes. After further evaluation, the researchers finally settled on 153 codes and the inter-coder reliability was 78% (Cohen's $\kappa = 0.78$). Even though minor discrepancies were identified during the analysis, the researchers resolved them through discussion. For instance, all agreed to expand three major themes into five themes. In addition, the researchers agreed to reduce themes that were

supported by the testimony of only one participant. Finally, ten sub-themes were selected from a total of 14 sub-themes.

Findings

In order to address each research question, the researchers provided a summary of the 16 participants' findings. Three themes and six subthemes were generated in response to the first research question, and two themes and four subthemes were generated in response to the second research question. The themes and subthemes were supported by 137 relevant excerpts.

Acquiring English knowledge through rote learning

The majority of participants who employed IDLE to improve their English skills relied on rote memorization (see Table 2). The participants (n=12) employed rote learning strategies, such as copying, imitating, or repeating what they heard while doing IDLE. For instance, Aditya learned English through his passion for watching movies. He claimed, based on his experiences, that he employed the rote learning strategy to remember linguistic features as he described, "... and also repeating something. I do remember when watching movies entitled Transformers, the first Transformers, and Optimus Prime said some sentences at the end. Then, I repeated them all the time because I was amazed by that movie" Having a similar hobby, Mirah spent her free time watching western movies and admitted that she did so while studying English. Intriguingly, Mirah employed the same strategy while watching movies as Aditya. She commented, "I often watch videos with or without subtitles. Then, I repeated what the speaker is saying and then yeah, I learned the pronunciation".

Acquiring English knowledge through note taking

According to the interviews, which are summarized in Table 2, the participants (n=11) employed a note-taking strategy to improve their English proficiency while using IDLE. Bagus frequently used English video chat to communicate with his Indonesian and international friends. He explained that he gained new knowledge through his interactions with others. To increase his knowledge, he frequently took notes and described, "...then I took notes. I wrote about the new vocabulary and then the meaning of the vocabulary" Krisna was a student whose hobby was listening to English music; he stated that he enjoyed singing along and learned the lyrics to enhance his English proficiency. He described how he frequently took notes in order to recall the linguistic features he learned from the songs. He explained, "Then, when I listened to the music I just remembered the music and the singer, and what they sang. And after that, if I found any new words or vocabulary, I would write them down in my notes".

On the other hand, only a few of the participants (n=8) who took notes intended to read them in order to advance their English language learning. When it was necessary for Bagus to learn the vocabulary, for instance, he would read the notes as he said, "Yes, of course, I read my note. So, when or whenever I felt like it, I mean I needed those words. So, I opened [and read] the notes that I had" Sandat was another participant who took notes, and after she finished her classes, her favorite activity was to engage in video chatting with her friends. After a long day of studying, she mentioned that this could help her relax. She claimed that while she was doing video chatting, she was often writing down words she didn't know, complete with the meaning in Indonesian. As a result of her past experiences, she would open the notes whenever she found that she had forgotten the words that she had written down as she claimed, "I read it very often at the time. Whenever I forgot a vocab in English, or whenever I wanted to know the meaning of a vocab in Indonesian, I would look back at my notes"

Strategies	Techniques	Participants (n)
Rote learning	Copying/imitating/repeating	12 participants
Note taking	Taking notes	11 participants
	Reading notes	8 participants
Exploring additional information	Consulting new words' meanings on dictionary/Translating	11 participants
	Finding more information related to topical knowledge on the internet	9 participants
	Asking others to get more information	5 participants

Table 2: The strategies and techniques done by EFL students while doing IDLE to improve English mastery

Acquiring English knowledge through exploring additional information

As can be seen in Table 2, the participants did their English language learning and increased their English knowledge by searching for additional information. The participants (n=11) frequently consulted new words they discovered from doing IDLE on dictionary, used *Google Translate* to find the meaning, or used other translation platforms. As an illustration, Dewi would frequently do her favorite IDLE to support her efforts to improve her English language skills by playing games. When Dewi was playing online games, she frequently discovered some new vocabulary in the game's chat box and used the translation platform that was provided there, as she described:

...when I play the game and don't understand the meaning, I can translate the English message through the translation feature in that game. So, if there is a conversation in English or someone texts me in English through the chat box, I can use the translation feature directly to translate the message. (Dewi, July 2022)

Sukma loved engaging in English conversations with other people through social media and particularly enjoyed video chatting. Furthermore, she participated in this activity so that she could improve her English language skills. As she described it, she would use *Google Translate* whenever she came across new vocabulary, phrases, or sentences for which she was unsure of the meaning:

So, at that time I needed a dictionary and Google Translate when I didn't understand English. I use Google Translate but it came out a little bit weird in Indonesia, so I started to find the meaning on Google. For example, try to find what is the meaning in it and the idioms that I found. It led me to read the definition in English, so I think I've learned about the culture a bit. (Sukma, July 2022)

The participants (n=9) also claimed that they found some online information to support their understanding towards the topics that they found in IDLE. This information was used to support their understanding. For example, Artana would frequently post anything written in English on various social media platforms. He stated that it was something he enjoyed doing and that it helped him improve his English. In addition to that, he would frequently read some English-written comments and news articles. When he came across new subjects that he had no prior knowledge of, he would search on *Google*. Also, prior to posting or writing comments on a particular subject, he would first read some information about the subject, as he described, "I read the information first from the internet and then find it. So, I tried to find the main topic [before posting or commenting]. As a continuation of his previous experiences, Aditya employed this strategy to further his comprehension while watching movies. He would search some information online that was relevant to the movies he had seen. He said, "...when I watch a new series of movies, for example, *Avengers*, I would search more about *Avengers*. So, I will do a little research about the themes of the movies, the series of the movies...."

A small number of participants (n=5), reflecting on their experiences, stated that they had also sought some information from other people who had an in-depth understanding of the topics. To give an example of this, Yanti stated that she frequently asked her friends or coach in the English language learning webinars to support her understanding of the material. She mentioned, "Yeah, sometimes I ask my friend. And I also ask my coach, but I usually do some research myself too, so it's like a combination of those things. Until I find new facts, information, and something else" When Mirah watched movies, she frequently learned new things that she was previously unaware of. As a result of this, she would seek additional information from her friends who were also fluent in English. Mirah described, "I also asked my friend that I mentioned before, and sometimes, I do share with her about English."

Doing communication practices to improve English speaking skills

Table 3 demonstrates that the participants frequently engaged in communication practices. This was done so that the participants could practice the information that they had gained from doing IDLE in order to improve their English language skills. The participants (n=12) regularly engaged in oral communication with one another, as a form of practice intended to improve their public speaking abilities. For instance, Wisnu enjoyed spending his free time playing games, and he asserted that participating in this IDLE activity helped him improve his English. He explained that he frequently communicated with his friends on social media or while playing games to practice what he had attained from IDLE, which is consistent with his previous statement that he learned linguistic features from playing games. Wisnu confessed, "Well, I certainly used this for speaking with my overseas friends through the internet using English. ...It's actually needed while doing video games because we need to communicate with our teammates and stuff...." Wiratma, who also enjoyed playing games for fun and also liked learning English, claimed that he practiced the knowledge he obtained from IDLE by doing oral communication with others or using it in his presentations in some of the

courses he enrolled in. On the other hand, not all communication activities were carried out online. Wiratma enjoyed playing games for fun and also liked learning English. For example, Wiratma said, "I apply it to the class when we should speak English in a presentation or something like that. I apply some language expressions or some kind of vocabulary that I've learned".

Only three out of the total number of participants stated that they regularly engaged in individual speaking practices in order to hone their communication abilities. In order to provide an example of this, Indra shared how much he enjoyed playing games and how much he improved his English as a result of participating in this activity. He mentioned that in order to improve his public speaking abilities, he frequently engaged in individual communication practices, as he said, "... if I had enough time practicing at home, I talked to the mirror and remembered the English knowledge [linguistic features and topical knowledge] in the game that I played." While Sukma was engaged in a variety of practices, she admitted that she frequently had conversations with herself in order to put what she had learned into practice. She described:

I recently just talked to myself all in English. So, for example. I have a topic in my mind: what do you think when a man is just verbally abusive to you. So, I just have a conversation with myself all the way. (Sukma, August 2022)

Themes	Sub-themes	Participants (n)
Communication practices	Oral communicating with others	12 participants
	Individual communication practices	3 participants
	Written communication	6 participants
Writing practices	Writing caption/simple description/ quotes	7 participants

Table 3: The activities done by EFL students to practice their English language skills

The participants (n=6), in addition to speaking English with one another, frequently engaged in online conversations while participating in English language learning webinars or social media platforms. For instance, Sekar participated in various social media activities, such as posting, commenting, and reading information, and she mentioned that they were significant sources of her increased English language knowledge. Her narratives suggest that she put the knowledge she gained from social media to good use through chatting in English with native speakers. Sekar mentioned, "Like when I want to send a wish for someone [on *Chat Box*] who has his or her birthday I tried to use another language [expression], like not 'happy birthday' but 'happy level up'" In the same vein, Indra asserted that he frequently communicated with his friends on the chat box and used what he had learned from playing games in real life situations. For instance, he described, "... I usually chat with them and bring up some topics. Chatting with them in English and using some slang language, acronym, or others"

Writing caption/simple description/quotes to improve writing skills

The findings from the interviews, which are summarized in Table 3, show that the participants (n=7) sometimes wrote simple descriptions and captions or quotes on social media. For instance, Sukma improved her writing abilities by writing English captions. She was not accustomed to writing captions in English. However, she encouraged herself to be brave as she wanted to improve her writing skills in order to pursue her goals. She mentioned, "Whenever I posted a picture on Instagram, I tried my best to write the captions and also paid attention to the grammar". Artana, who spent a lot of time engaging in activities on social media, shared another experience in which he mentioned that he frequently posted something in English on social media in order to put what he had learned from IDLE into practice. Artana said, "I prepared the content itself. Then, I wrote the captions or typed the captions on my notes first. Then, if I thought it was already appropriate, I uploaded it"

Discussion

This study aimed to investigate the strategies EFL students employed to strengthen their proficiency and mastery of English during IDLE. In response to the first research question regarding the strategies EFL students employed to acquire English knowledge while doing IDLE, the findings from the interviews revealed that the participants enjoyed listening to native speakers in English webinars, movies, and songs, as well as copying or repeating what the speakers said. The findings also revealed that students who participated in IDLE activities took notes and read them to promote English language learning. Consequently, these

results mirrored those of earlier studies (see Sockett & Toffoli, 2012; Wang & Chen, 2020). Even though the students claimed that they engaged in IDLE due to hobbies, fun, and engaging activities, it appears that they still utilized formal learning strategies as mentioned above. Possibly, these strategies are still effective and could significantly aid students in mastering English knowledge, particularly linguistic features. For example, rote learning, which was also identified in this study, has been utilized for decades and has been shown to improve English proficiency according to previous studies (Ali & Haq, 2017; Sinhaneti & Kyaw, 2012). In addition, note-taking in IDLE, as suggested by Wang and Chen (2020), should be encouraged because it provides students with a tool to assess and evaluate the success of their online self-directed learning. (Zimmerman, 2008).

In addition to employing rote learning and note-taking strategies, the findings of the interviews indicated that participants explored additional information when engaging in IDLE, such as consulting dictionaries or translating using *Google Translate* or other platforms, searching for additional information online, and asking others to improve their comprehension of English and the topics discussed in IDLE. Accelerating English language learning is possible with the most recent artificial intelligence-based platforms (Fitria, 2023; Kohnke et al., 2023) For example, the use of grammar checker and translation platforms have become the most popular option for EFL students, as claimed by previous researchers (Levy & Steel, 2015; Tsai, 2019), these platforms provide the students with the accurate information they require and can improve students' mastery of linguistic features, particularly vocabulary. It is not surprising that EFL students in this study will use these platforms to obtain accurate information and translations to support their success in using the language in their leisure activities and to improve their vocabulary knowledge. In addition, it is very common for EFL students to seek additional information online as argued by Tsai et al. (2012). Both, exploring knowledge online and from others, could enhance students' topical knowledge and according to Banerjee (2019), it is a predictor of the target language learning. Thus, it appears that students who participated in IDLE expected achieving learning success, which motivated them to seek out additional information to supplement their IDLE.

In response to the second research question, the findings from the interviews revealed that EFL students applied the knowledge they gained from IDLE and concentrated on developing productive skills, such as speaking and writing skills. Even though developing writing skills in IDLE has received scant attention in prior research, communication practices such as speaking with others online or offline, practicing communication individually, and chatting in English have been extensively reported (e.g., Dincer, 2020; Kusyik, 2017; Lamb & Arisandy, 2020; Lee, 2019b, 2019c; Lee & Dressman, 2018). Possibly, because digital technology enables EFL students to practice language through interactions in natural settings (Kim & Bae, 2020; Lee et al., 2022) utilizing a variety of means and having a larger audience for practicing communication skills (van Laar et al., 2020). Moreover, the primary objective of the majority of English language learners is to improve their verbalization of ideas and thoughts (Kusuma, 2021) through doing some communication activities. As a result, rather than focusing on other skills, most of EFL students in this study preferred to practice their communication abilities through online or offline activities.

From the preceding findings and discussions, four implications can be drawn for English language learning. First, since students used formal learning strategies in IDLE, EFL teachers whose students want to use IDLE should encourage them to use formal learning strategies, including rote memorization, note taking, and exploring additional information to promote English language learning. It is possible for EFL students to lose concentration while using IDLE if they enjoy the entertainment aspects (Bani-Hani et al., 2014). Thus, employing appropriate learning strategies may assist in restoring their learning concentration. In addition, EFL teachers could ask students who are using IDLE to share the strategies they typically employ to facilitate learning in IDLE so that other students could learn and apply these strategies based on their individual needs and interests. Second, given the self-directed nature of IDLE (Wang & Chen, 2020) which could generate confusions and issues during the informal learning, EFL instructors must play a crucial role in providing suggestions about the selection and management of digital English language learning activities (Kim & Bae, 2020) if needed by the students. To facilitate effective use of social media for language learning, teachers can suggest how to use different platforms and/or encourage them to learn from peer interactions. By doing so, instructors can ensure that students advance in their language learning and are equipped with the digital literacy skills. Third, since many EFL students in this study enjoyed communicating with others in English, EFL teachers could recommend that their students participate in such an activity on online platforms, as technology could provide natural and authentic communication settings (Kim & Bae, 2020; Lee et al., 2022) as a supplement to classroom practice, which typically involves fictitious and predictable

situations (Lee et al., 2022). Fourth, to improve the success of IDLE, particularly when dealing with new words, phrases, or sentences, students should utilize dictionary and translation platforms because they can provide accurate definitions to improve their comprehension (Levy & Steel, 2015).

Conclusions

The aims of the study were to investigate the strategies EFL students employ to learn English knowledge while doing Informal Digital Learning of English (IDLE), and how they practice the knowledge to improve their mastery of the English language. This study found that the participants enjoyed listening to native speakers in English webinars, movies, and songs, as well as copying or repeating what the speakers said. The findings also revealed that students who participated in IDLE activities took notes and read them to promote English language learning. The primary purpose of these strategies was to aid students in remembering and comprehending the linguistic features they discovered using IDLE. In addition, the majority of EFL students developed their communication skills through online or offline communication activities. In addition, they did limited activities to improve their writing skills.

However, this study revealed areas for future research advancement. This study recruited 16 participants from a single university; more participants from various schools and universities may have provided more insightful results. Thus, additional IDLE-implemented learning facilitation strategies could be identified. In addition, this study did not investigate the obstacles experienced by EFL students when employing such strategies. Therefore, this study anticipates that future research will address this study's limitations.

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Appendix

Interview Questions

1. What is your name?
2. How old are you?
3. How long have you been doing IDLE?
4. What kind of IDLE do you often do?
5. Please describe how you usually do that IDLE activity!
6. What kind of knowledge do you usually learn in IDLE? (Vocabulary, pronunciation, grammar, topical knowledge, language expressions, etc.)
7. What did you do to remember that knowledge? (Taking notes, checking the meaning in the dictionary, saying/repeating a couple of times, using it in verbal or written sentences, etc.)
8. Do you explore some additional information to support your English learning? How do you usually do that?
9. What activities do you usually do to improve your English mastery after getting the knowledge from IDLE?
10. Why do you do those activities?
11. Do you think those activities help you improve your English mastery?