To What Extent Does Informal Digital Learning of English Contribute to Learners' Communicative Competence?

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Abstract: The increase accessibility of online resources in day-to-day communication in the digital era offers ample opportunities for informal language learning to enhance learners' communicative competence. Addressing the issue, this sequential explanatory study sheds some light on the empirical relationship between informal digital learning of English (IDLE) activities and the development of learners' communicative competence. Moreover, the types of IDLE activities are further depicted. A web-based survey and semi-structured interviews were employed to elicit the required data from 279 Indonesian undergraduate learners majoring in English education and linguistic studies. Drawing on a multiple linear regression analysis, the results depicted that both receptive IDLE activity (e.g. listening to English music online) and productive IDLE activity (e.g. chatting in English with others) contributed to the enhancement of the learners' communicative competence. The semi-structured interviews further portrayed several types of IDLE activities which have fruitful insights for the learners' communicative development. This study concerns on the current phenomenon of how language learners are exposed to the present-day technological advancement in a range of informal learning environments, along with some didactic implications for English language teaching.

INTRODUCTION

The twenty-first Century English language teaching is the witness of rapid advent and affordance of digital technology. The availability of online resources in daily life offers a great opportunity for teachers and learners to enhance the efficacy of their language learning (Fakhruddin et al., 2020). By a means of technology integration, English language learning (both English as a second language and English as a foreign language settings) has a great potential to be conducted not only in a formal context inside classroom but also in an informal context outside the classroom (Hazaymeh & Altakhaineh, 2019; Gjelaj et al., 2020). Recently, English language teaching (ELT) scholars have begun acknowledging how language learners engage in learning activities beyond their formal classroom using a range of digital devices (Sundqvist & Sylvén, 2016). Lee (2019) refers to the current phenomenon as informal digital learning of English (IDLE).

IDLE has received a great attention from ELT professionals in the field of computer assisted language learning (CALL) in response to the present-day

phenomenon about the increase availability of digital devices and online resources in day-to-day communication (Lai, 2017). Recent studies on IDLE have reported that IDLE activities have a promising role in developing language learners' vocabulary acquisition (Jensen, 2017; Sockett & Kusyk, 2015; Sundqvist & Sylvén, 2016), cognitive achievement (Lai et al., 2015), affective variables (Lee & Drajati, 2019; Lee & Dressman, 2018), reading comprehension (Cole & Vanderplank, 2016), and cross-cultural communication (Lee, 2020). These studies have acknowledged that IDLE activity is considered as having direct impact on language competence.

The concept of informal digital learning of English (IDLE) emerges as an advanced idea of ELT scholars (e.g. Cole & Vanderplank, 2016; Jensen, 2017; Lai, Zhu, & Gong., 2015; Lee, 2020; Lee & Dressman, 2018; Sockett & Kusyk, 2015; Sundqvist, 2019) in response to the current phenomenon about the rapid development of new technologies in English language teaching. With the increase accessibility and affordance of online resources in present-day communication, ELT professionals have begun to pay their attention to language learners behaviours in informal and beyond classroom digital settings (Reinders & Benson, 2017). As a result, outside-classroom autonomous digital learning of English becomes a new and independent area of inquiry in the field of computer assisted language learning (Lai, 2017). Lee, (2019) defines this current phenomenon as informal digital learning of English (IDLE), which refers to an informal independent English learning using a variety of available digital devices such as smartphones, tablets, computers, web applications, internet sites, social networking sites, and other online resources not structured by a formal teacher.

Recent researches on this inquiry have reported that IDLE activities are positive predictors of English learning outcomes, such as language skill development and communicative competence. Lee and Dressman (2018) examined the way IDLE activities improve students' learning proficiency related to formal instruction. Drawing on mixed-method design involving 94 Korean English as foreign language (EFL) students, the study found a positive correlation between IDLE and students' vocabulary outcomes and self-reported English proficiency. In a similar direction, Lee and Lee (2019) tested a hypothesis *"the more the students perform IDLE activities, the more significant and positive their perception on English as international language"* using a survey with 317 EFL college students in Korea. By using SEM analysis, the results showed that IDLE activities have a strong and significant impact on learners' perception of English as an international language. In short, these studies suggest that if language learners engage in more IDLE activities (both receptive and productive), they tend to have advanced vocabulary outcomes and positively perceive English as an international language.

More recently, Lee and Drajati (2019) further explored how and to what extent two types of IDLE activities, i.e. receptive IDLE and productive IDLE, relate to several affective variables, i.e. motivation, grit, anxiety, and self-confidence, and willingness to communicate in English. They collected the data using a questionnaire from 183 EFL learners of a public university in Indonesia. The findings indicate that students' engagement in IDLE activities plays a crucial role in a foreign language acquisition. In particular, EFL students should be familiar with pedagogical implications of affective variables (e.g. motivation, grit, and anxiety) and IDLE activities to foster their willingness to communicate in English. Furthermore, Lee (2020) continued the journey of IDLE

investigation by examining its empirical connection with strategic competence for cross-cultural communication, with perception of English variety as a mediator. By involving 266 Korean EFL college learners in a survey project, the results of SEM analysis depicted that perception of English variety successfully mediated the connection between IDLE and strategic competence for cross-cultural communication. From pedagogical point of view, the results suggest that ELT professionals and teachers have to begin equipping present-day EFL learners with the knowledge of cross-cultural communication by setting out digital multicultural environments, whether inside or outside classroom.

The previous literature clearly depicts that English learners generally engage in two types of IDLE activities, i.e. receptive IDLE activity and productive IDLE activity. Precisely, receptive IDLE activity concerns on understanding something in English using a range of digital devices, such as listening to English music and watching English videos or movies (Lee, 2019). On the other hand, productive IDLE activity pays attention to produce English interaction, such as sharing English contents and chatting in English with others using social media (Sundqvist, 2019).

In this study, IDLE activity is closely associated to the development of English learners' communicative competence. The idea of communicative competence came up when some linguistic scholars (e.g. Bachman & Palmer, 1989; Canale & Swain, 1981; Celce-Murcia, Dörnyei, & Thurrell, 1995; Hymes, 1972) emphasized the importance of language fluency as a perfect combination of language accuracy to settle the concept of communicative competence. For long years, before the idea of communicative competence emerged, language teaching had focused on the linguistic knowledge and vocabulary memorization (Nugroho & Rekha, 2020). However, it was found that the acquisition of linguistic knowledge and vocabulary was not an ideal practice for successful communication (Güneş & Ortaçtepe, 2019; Yazdanfar & Bonyadi, 2016). To be communicatively competent, English speakers are needed to be able to use language grammatically and functionally appropriate in real communication environments. Therefore, the ideal concept of communicative competence comprises of the ability to use language structure (linguistic competence) and language function (pragmatic competence) in a proper context of real communication (Alemi & Khanlarzadeh, 2016).

Research on the integration of digital technology to enhance language learners' communicative competence have showed positive results. Kim and Brown (2014) shed some light on how computer mediated communication (CMC) facilitated L2 learners' communicative competence. The results revealed that CMC offered a promising context for L2 learners to develop their communication exposure and to progress informal learning outside classroom. Following the research of Kim and Brown (2014), Kaliska (2018) examined several useful tasks on the basis of digital resources to enhance communicative knowledge and language skills. The study reported that learners' communication awareness could be fostered through some digital tasks and activities such as language corpora, student online forum, and digital learning community. In a word, studies reported by Kim and Brown (2014) and Kaliska (2018) indicate that language teaching environments should be designed to get learners concerned on developing their communicative competence within which pragmatic and sociocultural knowledge play a crucial role.

Moreover, Haghighi et al. (2019) reported a research about the impact of

flipped learning on EFL learners' communicative competence. Flipped learning incorporates digital technology to combine e-learning and face-to-face learning inside and outside classroom (Bergmann & Sams, 2012). Using Telegram to facilitate the flipped learning, the results of Haghighi et al., (2019) found that the learners were more engaged with the teaching activities and perform good achievement according to the score on tests. The results offer pedagogical insights for English language teaching context that students' communicative knowledge can be significantly developed through the integration of digital technology into language learning both inside and outside classroom. Similarly, Hazaymeh and Altakhaineh (2019) examined the influence of flipped learning on the development of Emirati EFL learners' communicative competence. Drawing on experimental research by using Discourse Completion Task (DCT) as a means of data collection, the results claimed that flipped learning was the most effective method in enhancing the levels of communicative knowledge among the respondents. In a nutshell, the results of Haghighi et al. (2019) and Hazaymeh and Altakhaineh (2019) provide an implication for ELT context that teachers have to acknowledge the integration of digital technology to foster learners' communicative and sociocultural competence, not only in a formal classroom but also beyond the classroom.

Having explored the recent previous literature about IDLE and communicative competence, two research gaps are observable. First, notwithstanding the fact that IDLE activity was empirically proven to be significantly correlated with the development of some language skills and strategic competence, the relationship between receptive IDLE and productive IDLE activities with the levels of English learners' communicative competence still remains unexplored. Second, although

IDLE nowadays becomes an independent research area that has been examined in the EFL context of Europe (Sundqvist & Sylvén, 2016), Latin America (Cole & Vanderplank, 2016), Middle East Asia (Haghighi et al., 2019; Hazaymeh & Altakhaineh, 2019), and East Asia (Lai, 2017; Lee, 2020), little inquiry has been conducted in ASEAN EFL context, such as Indonesia, where IDLE activity does not fully exist in the literature. The initial study on the topic of IDLE in Indonesian context has been conducted by Lee and Drajati (2019). However, the study focussed on examining the correlation between IDLE activity and some affective variables, such as motivation, anxiety, confidence, and students' willingness to communicate in English. To the best of the researchers' knowledge, the empirical relationship between IDLE activity and English learners' communicative competence still remains a paucity of evidence. Thus, the present study is dedicated to be the first research examining the relationship between IDLE activity and students' communicative development, particularly in Indonesian setting.

As an attempt to close the aforementioned research gaps, the present study proposes a sequential explanatory design (Creswell, 2017). This study aims to examine whether receptive IDLE and productive IDLE have a positive effect on the learners' communicative competence. Furthermore, the types of IDLE activities performed by the learners are portrayed through qualitative data using semi-structured interviews to support the delineation of the quantitative results on the empirical relationship between IDLE and communicative competence (see Figure 1). As the respondents, 279 undergraduate students majoring in English education and linguistic studies are invited to participate in this study through a web-based questionnaire and semi-structured interviews. In a theoretical basis, the results of this study

are expected to contribute as literature enhancement in the area of IDLE activity in ASEAN English teaching and learning context. Practically, the results provide insights for English teaching stakeholders

(including teachers and practitioners) to begin acknowledging informal digital learning as a promising learning activity, particularly for university students.
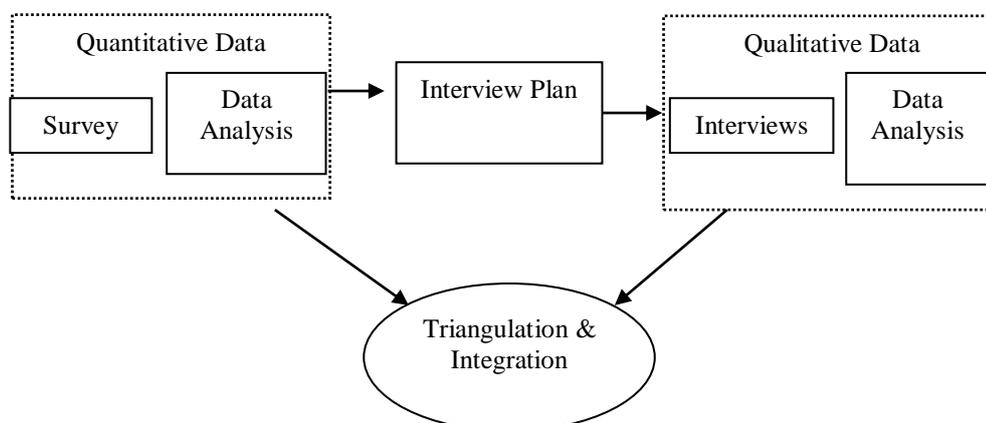

Figure 1. Research Model (Creswell, 2017)

METHOD
Rationale of the Method

The primary objective of the in-hand study is to examine the empirical relationship between IDLE activities and English learners' communicative competence. A secondary aim of this study is to reveal some types of IDLE activities that can enhance the learners' communicative knowledge. To this end, a sequential explanatory design was adopted. In the context of the present study, quantitative analysis through multiple linear regression was conducted to seek the answer of the first research question regarding to the empirical relationship between IDLE activities and communicative competence. Furthermore, qualitative inquiry by following (Creswell, 2017) sequential explanatory strategy was applied to disclose the second research question about types of IDLE activities which have contribution to English learners' communicative acquisition.

Research Context and Participants

This study is based on Indonesian setting where English is treated as a foreign language. The most available place where language learners are

exposed to English is classroom (Nugroho & Rekha, 2020). Indonesian school students tend to not to experience a large amount of exposure to English in their daily routines. A total of 279 Indonesian learners majoring in English (male, n = 103, 37 %; female, n= 176, 63 %) from a public university in Central Java province Indonesia were involved in this study. They were undergraduate students, consisting of freshmen (n = 91, 33 %), sophomores (n = 104, 37 %), juniors (n = 67, 24 %), and seniors (n = 17, 6%). They are native speakers of Indonesia and their average age was 22. Furthermore, four of the participants were invited to join semi-structured interviews to depict more in-depth understanding about the types of IDLE activity that could enhance the communicative competence.

Instruments and Data Collection

The present study employed an online questionnaire and semi-structured interviews to elicit the required data. The questionnaire with three sections, which was developed by referring to Lee and Lee (2019), was firstly administered to 279 Indonesian English learners who voluntarily participated in this study upon invitation. As presented in Figure 2, the

first section sought the participants' demographic information, such as gender, age, grade, and major. Additionally, this section specifically asked the participants about the quantity of IDLE that they did in a day (e.g. how many hours do you spend engaging in IDLE activities in a day?). The second section aimed to elicit the data pertaining to receptive IDLE activity (.e.g. I watch English movies and videos online) and productive IDLE activity (e.g. I do chatting in English on social media). The number of items in this section was 6 for each type of IDLE (receptive and productive), and were measured using a 5-point Likert scale. Moreover, the third part was a Discourse Completion Task (DCT) which was designed to obtain data about the participants' pragmatic competence.

In this present study, the data were gathered using a DCT comprising 5 contextual situations about speech acts of requests adapted from Nugroho (2019). The situations were contextualized with day-to-day interactions that were commonly encountered by the Indonesian language learners involved in this study. Following the online questionnaire, semi-structured interviews were conducted with four participants on voluntary basis to obtain qualitative data. These interviews were administered in English for 15-20 minutes of each participant to portray the types of receptive IDLE activity and productive IDLE activity that potentially contributed to the development of the participants' communicative competence. Amidst the interviews, the participants were asked to describe their engagement in some IDLE activities in daily life.
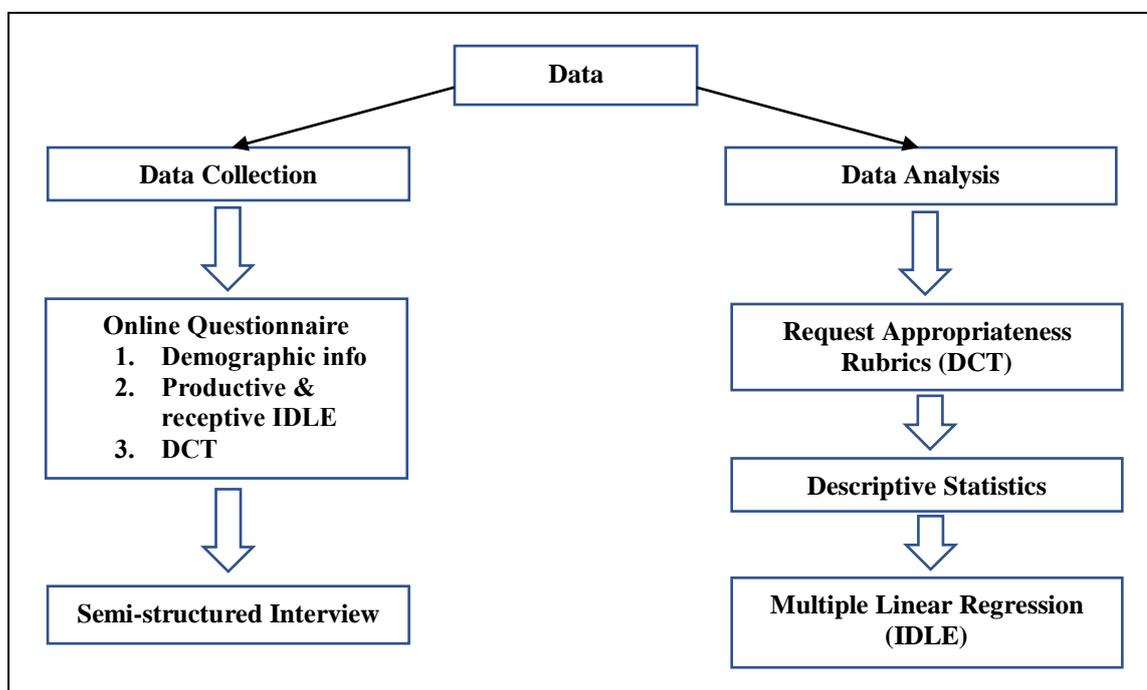

Figure 2. Data Collection and Data Analysis Process

Data Analysis

The data obtained by means of online questionnaire and semi-structured interviews were analyzed by following some procedures (see Figure 2). First, the data gathered by means of DCT (the third part of the online questionnaire) were initially analysed by referring to the rating scale of appropriateness developed by Taguchi (2006). The rating scale is in the forms of scoring rubric consisting of five points likert-scale ranged from poor performance (1) to excellent ones (5) with some criteria for each score (see Table 1).

To ensure the reliability, two native speakers of English were involved in scoring the participants' responses. Second, descriptive statistics by using SPSS version 24 was employed to find the mean (M) score and standard deviation (SD). Third, validity and reliability of the online survey were examined. It was considered as valid since all items score in the survey did not exceed 0.05 and the Pearson Correlation value was positive. The reliability of the survey was further assessed by a means of Cronbach's alpha (α). It turned out that α value for all survey items exceed the minimum threshold of 0.6, and therefore it indicated that the survey was reliable. Fourth, multiple linear regression analysis was administered to depict whether IDLE activities (both receptive and productive) might have relationship with the development of the learners' communicative competence. Finally, by following the sequential explanatory strategy developed by Creswel (2009), the qualitative data obtained from semi-structured interviews were used to further confirm the quantitative findings. The most relevant excerpts as the empirical answers of the second research question were reported in the finding section.

Table 1. Request Appropriateness Rubric (Taguchi, 2006)

Rating	Points	Criteria
Excellent	5	- The request expressions are fully appropriate based on the provided contextual situations - The request expressions are free of grammatical mistakes
Good	4	- The request expressions are almost suitable - The request expressions comprise a small number of grammatical mistakes but still understandable
Fair	3	- The request expressions somehow acceptable - The request expressions comprise several grammatical mistakes
Poor	2	- The request expressions are not appropriate because of grammatical mistakes
Very Poor	1	- The request expressions are not understandable because of wrong responses and heavy grammatical mistakes - No request expressions are produced

RESULT AND DISCUSSION
Empirical Relationship between IDLE and Communicative Competence

The first research question dealt with the investigation of an empirical relationship between IDLE activities and the English learners' communicative development. The descriptive statistics was conducted to analyze the online survey results in the form of mean and standard deviation (see Table 2). As depicted in Table 2, the learners performed more receptive IDLE activity such as watching English content online (M = 3.45, SD = 0.85) than productive IDLE activity such as writing an email in English (M = 3.30, SD = 0.9). Moreover, they fairly achieved good level of communicative competence as indicated by their response rate to the online DCT survey (M = 3.78, SD = 0.76). As for the quantity of IDLE, the online survey result showed that 64 % (n = 178) of the participants engaged in more than 2 hours practicing IDLE activities in a day, followed by 24 % (n = 67), who confessed between 1 and 2 hours, and 12 % (n = 34), who spent less than 1 hour.

With regards to correlations, a linear regression analysis was administered to depict the empirical relationship between IDLE activities (e.g. receptive and productive) and Indonesian language learners' communicative development. Based on the result of F test (see Table 3), it was clearly found that receptive and productive IDLE activities simultaneously contributed to the

development of the language learners' pragmatic competence ($P = 0.000 < 0.05$; $F = 23.712$). Therefore, it could be concluded that the proposed hypothesis (Ha) in this study was accepted, which meant receptive and productive IDLE activities were positively associated with communicative competence. This suggests that the more the learners engaged in the activities of receptive and productive IDLE, the higher their levels of communicative knowledge.

Table 2. Descriptive Statistics Results

Items	Mean	SD
Receptive IDLE activities	3.45	0.85
Productive IDLE activities	3.30	0.90
Communicative competence	3.78	0.76

Table 3. The Summary of ANOVA (F Test)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.310	2	31.655	23.713	.000[b]
	Residual	368.439	276	1.335		
	Total	**431.749**	**278**			

a. Dependent Variable: Communicative Competence(Y)
b. Predictors: (Constant), Productive IDLE (X2), Receptive IDLE (X1)

Furthermore, the result of t test regression analysis (see Table 4) portrayed that receptive and productive IDLE activities could predict the learners' communicative acquisition. It indicated that receptive IDLE activity ($\beta = 0.411$; $P = 0.000 < 0.05$; $t = 6.881$) was a positive predictor of communicative competence. It suggests that the learners tended to have high levels of pragmatic knowledge when they were frequently exposed to receptive IDLE activities. Additionally, productive IDLE activity ($\beta = 0.036$; $P = 0.004 < 0.05$; $t = 2.869$) also possessed a positive relationship with the learners' communicative competence. This result implies that respondents who scored higher on productive IDLE activity tended to acquire satisfactory communicative performance.

Table 4. The Summary of Coefficients[a]

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	23.285	.918		25.366	.000
	Receptive IDLE (X1)	.298	.043	.411	6.881	.000
		.081	.036	.036	2.869	.024
	Productive IDLE (X2)					

a. Dependent Variable: Communicative Competence (Y)

The finding suggests that if English learners regularly engage in receptive IDLE activities such as listening and watching foreign programs in English (e.g. movies, dramas, comics, sport events) and reading English news, they are likely exposed to (and thus familiar with) variety of English culture, users, and accents, which could subsequently enhance communicative competence. This finding is congruent with previous result reported by Lee and Drajati (2019) that receptive IDLE activity has a positive correlation with learners' perception of English varieties, which could eventually develop communicative awareness. The present study also depicts that productive IDLE activity is recognized as a positive

predictor of the learners' communicative acquisition. This suggests that if learners invest more time engaging in productive IDLE activities such as chatting with friends and writing online message in English, they tend to acquire higher levels of communicative competence. This finding is consistent with the results of Isbell (2018) and Nugroho and Rahmawati (2020) that more exposure to online digital learning of English activities would help learners develop their language competence.

More recently, this finding is further relevant to the result of Lee & Sylvén (2021) that informal digital learning of English (both receptive and productive) could enhance the Korean learners' willingness to communicate in English as a foreign language. This similarity might be due to Indonesian and Korean learners learn English in the same exposure as a foreign language. In addition, this study's finding is also similar to what have been revealed by Soyoof et al. (2021) that technology, through informal learning, played a vital role in improving the communication skill of English learners. They further acknowledged that informal digital learning of English is a promising approach to enhance the efficacy of twenty-first century language teaching and learning in which learners were already born as digital natives.

Types of IDLE Activity to Foster Communicative Competence

The second research questions examined some types of IDLE activities that could enhance English learners' communicative competence. Semi-structured interviews were conducted to four selected participants (i.e. participant 3, 15, 49, and 106). The qualitative findings further emphasized the quantitative analysis that IDLE activities (both receptive and productive) could have a positive effect on Indonesian language learners' communicative competence. Four excerpts are presented

as the most representative examples of the qualitative data.

Excerpt 1 (Participant 49): *"I listen to English music five to six hours in a day. I cannot be separated from English music when performing my daily routines such as morning walks or jogging, travelling, studying, riding motorcycle, etc. I usually listen to songs of, but not limited to, Tailor Swift and Rihanna. Since I am a big fan of them, I follow their updates by watching and reading anything news about them on YouTube and other social media such as Facebook and Instagram. I also follow some interviews about their daily activities on social media. I sometimes write about issues related to them on my twitter, and talk in English using email or Facebook to other fans from Singapore, Vietnam, Malaysia, and Korea. That's interesting."*

Excerpt II (Participant 3): *"I watch Hollywood movies, dramas, and music videos on YouTube and sometimes I get the movies from some movie sites where I can download them. In a day, I spent between two and three hours watching a movie or drama I am interested in. I often challenge myself to watch the movie without any subtitle, but it is terrified I think. I usually read short descriptions or synopsis of the movies in English before I watch them. I also regularly read news about some movie stars I like on a news site or Instagram. Besides, I often spent my hours to watch and enjoy English-pop music videos on YouTube, especially when new videos about my favourite singers are released."*

Excerpt III (Participant 106): *"I have a student-exchange experience about three years ago in a university at Singapore. From the event I close with some of my classmates who become my foreign friends until now. I spent four to seven hours everyday chatting in English with my foreign friends coming from various countries such as Singapore, Malaysia, Japan, and China. We have chatting by using social media such as*

Twitter and Facebook, even we often conduct video meetings on Zoom or Webex. I can obtain new insights and knowledge about their culture as I also introduce some Indonesian culture and wisdom to them. Although we have different accents in speaking English, I think our English is acceptable. This is what my linguistic lecturer says about global English."

Excerpt IV (Participant 15): *"I am a content creator and I share English contents online on YouTube. I do so because I am currently a part-time instructor at an institution for TOEFL and IELTS training. I share about tips and tricks to accurately answer questions in the tests. Additionally, I often talk in English with my colleagues, both in face-to-face interaction or chatting in WhatsApp and Instagram. I am also a big fan of football. I watch videos about my favourite players and read news about football everyday. Sometimes I read Indonesian news, but mostly I prefer English news."*

The qualitative findings hint that simple things that the learners engage in daily activities, such as listening to music, watching film and videos, chatting with others, and reading news, are potentially to be valuable insights for their communicative competence. The increase use of digital devices including smartphones, tablets, and computers offers ample opportunities for English learners to carry out informal digital learning of English activities as portrayed by the qualitative findings of this present study.

The qualitative analyses further confirm the quantitative data that IDLE activity facilitates the development of English learners' cross-cultural knowledge and communicative awareness. As in the case of participant 49, who spend five to six hours daily listening to music and reading international entertainment news, the receptive IDLE activities not only help

her understand an international language but also provide her opportunity to keep exposed to the foreign language. Similarly, participant 106 spend at least four hours in a day chatting with his foreign friends from Singapore, Malaysia, Japan, and China, which enables him to improve his knowledge about his friends' culture, traditions, and language. The productive IDLE activity helps him practice English every day and boosts his ability to have communication with foreigners. It indicates that he is capable of adapting appropriately with his foreign friends' cultural backgrounds. This findings are in contrast with Lee (2020) who reports that IDLE activities do not have a positive impact on English learners' cross-cultural communication skills. In this regard, this study provides a novel empirical insight about how IDLE activities in daily routines can significantly enhance cross-cultural and communicative knowledge. It evinces that English learners can be exposed to different forms of English cultural backgrounds while chatting and connecting with English users around the world in informal digital environments.

Implication and Limitation

The findings of this study have some implications for English language teaching context. First, English teachers should notice that present-day language learners are consuming a large amount of time engaged in various IDLE activities beyond classroom on their own initiative. This current phenomenon has recently been observed worldwide by ELT practitioners (Atmojo & Nugroho, 2020; Lee, 2019; & Sundqvist & Sylvén, 2016). These studies suggest that English teachers are necessary to evaluate their teaching practices and to what extent their learning materials accurately reflect current needs of English language learners. Additionally, these teachers should not only recognize the learners' needs but also facilitate their learning in

an informal digital environment to anticipate future trends that may come up, such as English learners taking virtual work with different language users. Thus, the findings of this present study may become "a wake-up call" for English teachers to begin acknowledging IDLE activities as a path to enhance language learners' communicative competence.

Second, English teachers can equip learners with opportunities to engage in IDLE activities by designing a blended learning. More specifically, teachers can initially organize and implement technology-integrated language learning in a formal classroom. From a pedagogical point of view, they have to create digital learning environments by shifting from conventional method to more student-centered method, from inside classroom to outside classroom, and from language accuracy to language fluency (e.g. having their learners interact with others and native speakers via social media). Moreover, teachers can encourage learners to involve in receptive IDLE activities (e.g. watching and reading English contents and learning other cultures via YouTube), which will have learners exposed to actual dialects and accents of English. Concurrently, they can motivate learners to perform productive IDLE activities (e.g. chatting with foreigners and joining online English community), which will improve their confidence and willingness to communicate in English. However, it is notably that English learners may engage in IDLE activity with their own initiative but may encounter obstacle to sustain their IDLE practices (Lai, 2017). Therefore, English teachers play a crucial role in sustaining, motivating, and facilitating learners to constantly engage in IDLE activity by means of steady support and monitoring as an effort to foster their language competence.

Nonetheless, the in-hand study should be evaluated in regards to some limitations. First, notwithstanding the fact that the qualitative results support the quantitative findings, future researches may scrutinize other independent variables that are not involved in this study, such as demographic, affective, psychological, and cognitive factors. Second, the respondents of this study are limited only in Indonesian language learners in which the findings may not be relevant with other respondents from different linguistic and sociocultural backgrounds. Thus, future projects in similar area should be conducted by involving more diverse respondents from various countries having different sociocultural backgrounds as an attempt to substantiate the results of this study. Third, the survey data were gathered in a short period of time, and only four participants are invited to semi-structured interviews. To avoid respondents' subjective opinions and inaccurate interpretation of survey questions, future studies have to consider additional data sources, such as focus group discussions, observations, and written reflections, to elicit more reliable data and understand the nuances of the present inquiry.

CONCLUSION

The in-hand study set out to examine the empirical relationship between IDLE activities (both receptive and productive) and English learners' communicative competence. Some types of IDLE activities that can enhance communicative knowledge were also revealed. Through multiple linear regression analysis, the quantitative findings showed that receptive and productive IDLE activities became positive predictors of language learners' communicative competence. The qualitative results also strengthen the quantitative findings that some IDLE activities (e.g. reading and watching English contents, chatting with foreigners, and joining online English community) could develop English learners' sociocultural and communicative

knowledge. The results of this study contribute to the literature of informal digital learning of English and English learners' communicative competence in Indonesian context. As for the limitations of the study, future researches are suggested to conducting an immense project by integrating other variables, additional data sources, and wider scope of participants. Finally, it is also worthy to note that IDLE activities truly have a significant impact on the development of learners' communicative competence, and therefore English teachers should begin to acknowledge the potential of technology-integration in language learning beyond a formal classroom.

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