Pioneer: Journal of Language and Literature
Volume 14, Issue 2, December 2022: 510 – 525

GENDER-BASED ANALYSIS OF DIFFERENCES IN IDLE ACTIVITIES (UNDERTAKEN BY EFL STUDENTS)

[1]Ni Putu Ristia Ayu Ningsih*
[1]Universitas Pendidikan Ganesha, Indonesia
[1]ristia@undiksha.ac.id

[2]I Putu Indra Kusuma
[2]Universitas Pendidikan Ganesha, Indonesia
[2]indra.kusuma@undiksha.ac.id

[3]Putu Adi Krisna Juniarta
[2]Universitas Pendidikan Ganesha, Indonesia
[3]adi.krisna@undiksha.ac.id

*Corresponding author
DOI: https://doi.org/10.36841/pioneer.v14i2.2289

Received	: October 6, 2022	Revised	: December 20, 2022
Accepted	: December 21, 2022	Published	: December 31, 2022

Abstract: In recent years, there has been an increase in the availability of research on informal digital learning of English (IDLE); however, the significant difference between IDLE activities undertaken by male and female students was currently unexplained. The purpose of this study was to see if there was a significant difference between EFL male and female students' use of Informal Digital Learning of English (IDLE). This study used a quantitative approach with an ex-post-facto design to address the research goal. The questionnaire was distributed to 656 students (181 males and 475 females) from the English Language Education Department at an Indonesian public university. The questionnaire data was then analyzed using descriptive statistics and parametric statistics, specifically the independent sample t-test. As a result, the findings indicated that there was a statistically significant difference between male and female students' participation in IDLE activities. There were 6 significant items with p-values less than 0.05 ($p<0.05$) among the 24 items. As a result of the current study's findings, EFL male and female students perform differently in IDLE activities, in which, male students outnumbered females in 5 IDLE activities.

Keywords: *efl students, gender, idle, questionnaire*

INTRODUCTION

The massive practice of mobile teaching using web 2.0 technology has existed in this digital technology (Jie & Sunze, 2021). For example, in asynchronous learning, technological tools such as email, pre-recorded video or animated short video, blog, e-book, and virtual forums and discussion boards may be employed (Saputri et al., 2020). Additionally, (Jie and Sunze (2021) proposed that the notion explore the use of Mobile Assisted Language Learning (henceforth, MALL) in the extramural digital context which supports learning English outside the classroom. Moreover, the affordance of technology

as digital devices and resources also supports that notion which constitutes the term informal digital learning of English (henceforth, IDLE) (Lee, 2019a). Thus, the massive practice of learning using technology does not only exist in the formal setting but also outside the classroom in an informal setting, specifically known as IDLE.

Rahmawati et al., (2019) proposed IDLE as informal digital learning of English that is available for learning in an informal setting. Moreover, a growing number of researchers (see Lamb & Arisandy, 2020; Lee, 2019a, 2019b) have given overviews related to the implementation of IDLE. One example is the research from Lee (2019a) found that a participant without overseas experience communicated in English in an informal context by using KaKao Talk. This activity reported increasing students' willingness to communicate in an informal setting. On Another research, Lee (2019b) depicted another complete implementation of IDLE done by a female Korean student. The participant tended to spend 70% of her time reading English text on her smartphone. Following that, she worked as a voluntary translator in TED talks, interacted with foreign friends on Facebook, watched American dramas on YouTube, and participated in Korean TESOL on Facebook. Hence, implementations and benefits of IDLE that reported by the aforementioned researchers give a good sign as the affordance of previous literatures related to the study of IDLE. However, those studies are limited on IDLE activities done by students in general means that the study related to IDLE activities done by male and female students still remains unclear.

In recent years, Dolch's study (2020) on gender theory has shed light on studies pertaining to the application of tech in recent years. The study proposed that male students have higher curiosity in learning technology while female students were more anxious to make mistakes when using technology. Another theory also exists in this study that reported 57% of male students owned desktop PC overrating their female counterparts which only 32%. Moreover, male students also overrated their female counterparts in the time available for learning. Accordingly, there is a possible result related to different types of IDLE used by male and female students. Thus, however, the study related to different types of informal learning done by male and female students needs to investigate in much detail.

However, years ago, Jensen (2017) already filled the gap related to gender differences in informal learning. She depicted female students loved music while males

love gaming the most. However, Jensen's study recruited young learners as participants mean that another inconsistent finding might be found in adult learners. Therefore, Xodabande (2018) complemented the previous study and he found that male students have a higher percentage of using computer games and YouTube compared to females. As shown, many researchers have examined gender theory in informal learning settings, nevertheless, types of IDLE done by male and female students are still limited. Thus, further research needs to conduct to enrich the literature on informal learning done in a gender context.

Examining gender differences in types of IDLE used is a fundamental property of teachers in assisting students to learn from various learning media based on their gender diversity. Mahmud and Nur (2018) support the previous statement. They stated, knowing gender differences in learning is an important aspect of teaching English in Indonesia. Moreover, there was an issue about women who are afraid of being left in the virtual world (Dolch, 2020). Despite research suggesting that both genders face the same challenges in developing critical thinking skills (Rahmawan & Perianto, 2021), gender differences in IDLE remain a possibility to investigate further. That issue becomes a key instrument in seeking the significant differences in types of IDLE done by male and female students.

Based on the lack of exploration of IDLE activities implemented by male and female students, the information on types of IDLE done in a gender context is crucial to investigate to enhance the literature on learning in an informal setting. This study might be beneficial for English students who are prospective teachers in suggesting IDLE activities to be done by their students. Moreover, the finding of this study should make an important contribution to the field of teachers in which they can suggest various IDLE activities by considering gender diversity in their classroom. The primary goal of this study is to look into the differences in IDLE activities that EFL male and female undergraduate students typically engage in. As a result, this study was carried out to answer the following research question:

Are there any significant differences in IDLE activities undertaken by EFL male and female students of English language education?

REVIEW OF LITERATURE

An Overview of Informal Digital Learning of English

In latest years, there have been many numbers of literature trying to investigate the term IDLE. (see Lee, 2019c; Lee et al., 2021; Lee & Dressman, 2018; Rahmawati et al., 2019). IDLE refers to independent learning to supplement formal learning, which can limit teachers' ability to teach (Lee & Dressman, 2018). The following year, Lee (2019c) defined IDLE as self-directed, self-instructed, and semi-structured digital English learning. Furthermore, IDLE involves internal motivation to engage in independent English learning activities without the need for teacher assessment. As a result, IDLE provides a far more flexible learning environment for students who want to learn English**.**

Several attempts have been made in the literature to seek the implementation of IDLE by a growing number of researchers from various countries (e.g. Lamb & Arisandy, 2020; Lee, 2019a, 2019b; Sockett & Toffoli, 2012; Sundqvist, 2019). The IDLE implementation study was not started in Indonesia; however, Sockett and Toffoli (2012) empirically demonstrated this study in French. They recruited 5 French university students through a groundbreaking study in which they explored students used Facebook to chat with English speakers two to three times per week. In another case, they reported that five students viewed video content such as television shows and movies. The same result was discovered by Trinder (2017) who investigated the frequency of use of technology. Trinder discovered that film and television were the most popular technologies used in informal learning by recruiting 175 Austrian university students and administering a questionnaire. As a result, those two types of implementations are still very limited.

Years later, a study conducted in Indonesia delved much deeper into the most popular and least popular IDLE activities undertaken by 308 university students in Indonesia. They discovered that the most popular IDLE activities are listening to English language music, reading English song lyrics online, playing digital games in English, viewing videos on YouTube in English, watching foreign movies with English subtitles, using the internet to learn English, using the English language for their social media's language setting, and reading internet sites in English. They also listed the least popular IDLE activities that are beneficial enough to enrich the literature on IDLE in their findings. Communication with foreign friends online in English; booking travel tickets in

English; writing Twitter or Facebook posts in English; contributing to English language forums based on their interests; talking with foreigners in English via Skype; reading Manga or comics in English; writing blog or fanfiction in English; creating videos in English on Facebook and Snapchat are among the least popular activities. Nonetheless, the study is still limited to participants in general, and the implementation of IDLE by EFL male and female students requires further investigation.

Gender, Digital Technology, Informal Learning

In recent years, students have had access to a lot more information about how male and female students use digital technology. (see Bao et al., 2013; Casillas et al., 2017; Ramírez-Correa et al., 2015; Reychav & McHaney, 2017; Suana, 2018). Suana (2018), for example, reported that females are more interested in using the internet as an academic tool, whereas males are more interested in using the internet for entertainment purposes. Dewaele et al.'s study (2018) supported Suana's study, which discovered female students are more emotional than males when engaging in informal digital learning activities. Furthermore, female students got a higher willingness in learning and use technology than males (Ramírez-Correa et al., 2015). As a result, as demonstrated by the findings, females are more serious than males.

The previous study, however, does not provide complete information about digital resources used by male and female students. As a result, Reychav and McHaney (2017) investigated the various digital technologies that were used by male and female students to bridge that gap. They found that male students are much more satisfied with the message apps than females in an individual learning setting. Male students, for example, used their cell phones to text their teachers just to socialize with their teachers (Dolch, 2020). While, when in a group learning setting, female students tended to watch video materials on their phones more than male students. It emphasizes Dewaele et al(2018) .'s theory, which discovered that females are more emotional and serious about informal learning than males.

Numerous studies have been conducted in recent years to explain more research findings on the implementation of informal learning by male and female students For example, Muñoz's (2020) study discussed how genders engage in English activities outside of the classroom. Munoz conducted a mixed-method study with 3.048 English learners in Catalonia and Barcelona (1.261 males, 1787 females) and discovered that

females do more reading outside of the classroom than males. In another finding, he discovered that female adolescents scored higher than males when listening to music and conversing with tourists. Finally, in another item, males consistently outperformed females in gaming activity. These study results indicated that females overrated males in many more various informal learning English activities.

Remarkably, the quantitative study from Jensen (2017) about the implementation of informal English learning already existed in previous years; however, it recruited 144 young learners from seven classes at five schools. She discovered that females preferred music while males preferred gaming. Nonetheless, Jensen's study yields inconsistent results when compared to Munoz's study. According to the findings, males were assumed to be more involved in doing outside classroom activities than females based on their pre-test results on the Productive Vocabulary Levels Test (PPVT). However, the assumption of inconsistency between those two studies remains debatable because the participants in those studies are of different ages. As a result of that inconsistency, many detailed investigations are required to look for differences in IDLE activities performed by male and female students.

METHOD

This study used an ex-post-facto design and a quantitative approach. The research was carried out in the English Language Education Department of a public university in Indonesia. Based on a preliminary survey of some students in this department, it was discovered that the majority of students are already familiar with IDLE activities and have been exposed to IDLE. Furthermore, the researchers are affiliated with this university. In terms of participants, the researchers used a convenient sampling technique (Mackey & Gass, 2016) to recruit 656 (181 males and 475 females) participants ranging in age from 18 to 22 years old, from the second to the sixth semester of the academic year 2021/2022. The questionnaire was given to 656 participants and it was open for an answer for a month. Only 309 participants (80 males and 229 females) returned the questionnaire after a month.

Concerning the questionnaire, the researchers used Google Forms to collect data and address significant differences in IDLE activities undertaken by male and female students. The online questionnaire employed a 5-point Likert-Scale (5 = very often, 4 =

frequently, 3 = occasionally, 2 = rarely, and 1 = never). In the first phase, the questionnaire contained 25 items. Following that, the questionnaire was tested for face validity and content validity, with the expert providing only a small amount of feedback on some ineffective sentences. Following that, the questionnaire was empirically validated using Pearson Product Moment. The statistical output from SPSS 26 revealed that item number 24 was invalid. As a result, the researchers decided to remove item number 24. As a result, only 24 of the 25 items that were created were valid. As a result, the valid questionnaire that has been developed will be used to collect data from participants to determine whether there is a significant difference in IDLE activities used by male and female students.

The researchers used descriptive statistics and parametric statistics to analyze the quantitative data. To begin answering the first research question, the researchers performed a prerequisite test by performing a normality test using the Kolmogorov-Smirnov and Shapiro-Wilk tests. Otherwise, the homogeneity test was carried out using Levene's test for variance equality. When the Sig. value is greater than 0.05, the test output is considered qualified. The Kolmogorov test had a Sig. value of 0.200 for males and 0.200 for females. Furthermore, the Sig. value of Levene's test for variance equality was 0.992. It meant that the data was homogenous and reliable. Following that, the questionnaire was distributed to all class leaders in April 2022 and was completed by the end of May 2022. The test was then extended to hypothesis testing using an independent T-test. The parametric statistic's independent T-test was used to determine the statistically significant difference between the mean on types of IDLE used by males and females students (Mishra et al., 2019).

FINDINGS AND DISCUSSION

Findings

Lists of the Most to the Least Frequent IDLE ActivitiesD by Male and Female Students

According to the findings, males and females were engaged in a variety of IDLE activities (see Tables 1 and 2 for complete data). Tables 1 and 2 also show lists of the most common IDLE activities performed by males and females. Listening to English songs (M=4.613), reading lyrics online (M=4.313), reading social media posts in English (M=4.213), and playing games that use English as the language of instruction (M=4.200)

were the four most IDLE activities performed by male students, according to table 1. Meanwhile, listening to English songs (M=4.642), reading lyrics online (M=4.432), reading social media posts in English (M=4.332), and reading social media comments in English (M=4.153) were the four most IDLE activities performed by females, as shown in Table 2.

Furthermore, writing blogs/fan-fiction (M=1.700), reading e-magazines written in English (M=2.563), contributing to English forums (M=2.588), and video chatting in English (M=2.675) are the four least IDLE activities performed by male students, as shown in table 1. Meanwhile, table 2 displays the four least IDLE activities performed by female students, which include writing blogs/fan-fiction (M=1.638), contributing to English forums (2.188), video chatting in English (M=2.297), and playing games that require spoken English communication (M=2.340).

Table 1. Lists of Most to the Least Frequent IDLE Activities Done by Male Students

IDLE Activities	Males	
	M	**SD**
Listening to English songs	4.613	0,684
Reading lyrics online	4.313	0,821
Reading social media posts in English.	4.213	0,758
Playing games that use English as the language of instruction.	4.200	1,011
Reading social media comments in English.	4.125	0,891
Watching English movies/dramas.	3.975	0,914
Watching tutorial videos on YouTube	3.963	0,878
Reading online texts written in English.	3.863	0,868
Playing games that require written English communication.	3.688	1,109
Writing short text messages in English.	3.613	0,849
Posting on social media in English.	3.500	0,968
Watching foreign movies with English subtitles.	3.488	1,043
Playing games that require spoken English communication.	3.438	1,189
Listening to English podcasts.	3.288	1,081
Posting comments on social media in English.	3.263	0,896
Chatting on social media in English.	3.250	0,803
Reading e-books written in English.	3.163	0,974
Reading e-news written in English.	3.004	1,123
Reading online comics written in English.	2.850	1,213
Communicating online with overseas friends in English	2.813	1,303
Video chatting in English.	2.675	1,041
Contributing to English forums	2.588	1,064
Reading e-magazines written in English.	2.563	1,077
Writing blogs/fan-fictions	1.700	1,060

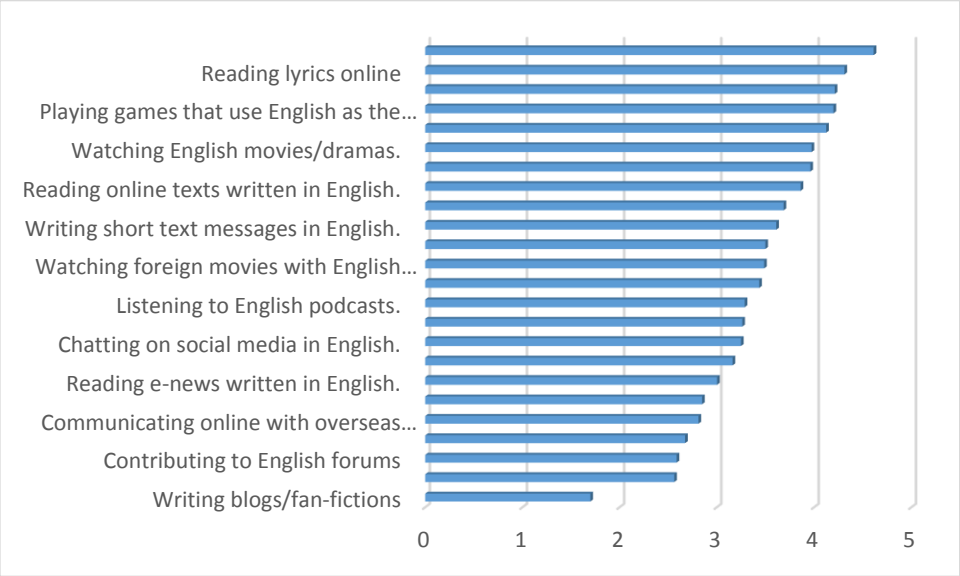

Figure 1. The Frequency of Males Students' IDLE Activities

Table 2. List of Least to Most IDLE Activities Done by Female Students

IDLE Activities	Female	
	M	SD
Listening to English songs.	4.642	0,609
Reading lyrics online	4.432	0,656
Reading social media posts in English.	4.332	0,665
Reading social media comments in English.	4.153	0,799
Watching tutorial videos on YouTube	4.052	0,765
Reading online texts written in English.	3.900	0,802
Watching English movies/dramas.	3.843	0,909
Posting on social media in English.	3.786	0,885
Writing short text messages in English.	3.742	0,811
Watching foreign movies with English subtitles.	3.563	0,983
Posting comments on social media in English.	3.336	0,962
Reading e-books written in English.	3.328	1,065
Playing games that use English as the language of instruction.	3.328	1,271
Chatting on social media in English.	3.314	0,765
Listening to English podcasts.	3.105	1,029
Reading e-news written in English.	3.004	1,002
Playing games that require written English communication.	2.786	1,226
Reading online comics written in English.	2.598	1,234
Reading e-magazines written in English.	2.546	1,061
Communicating online with overseas friends in English	2.546	1,160
Playing games that require spoken English communication.	2.340	1,212
Video chatting in English.	2.297	1,059
Contributing to English forums	2.188	1,045
Writing blogs/fan-fictions	1.638	0,939

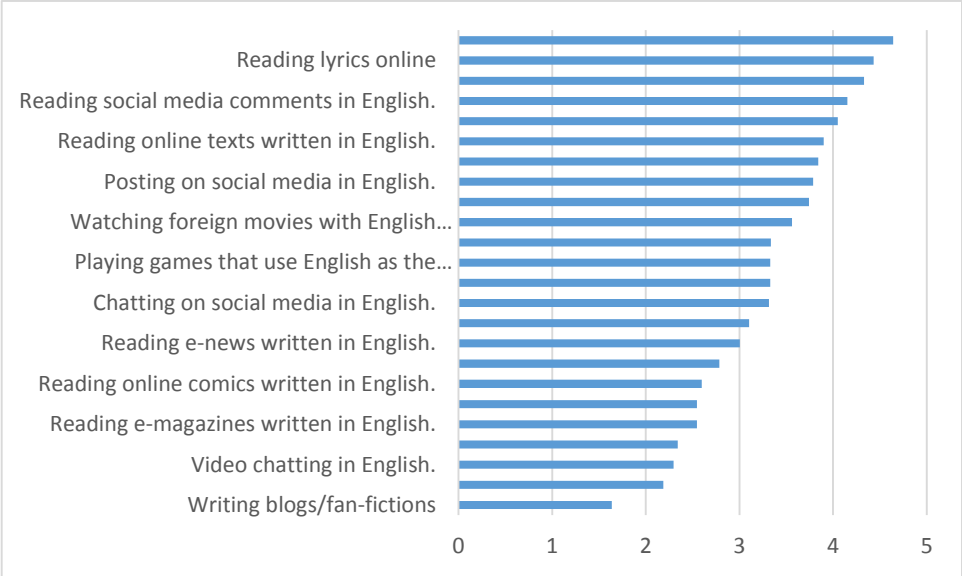

Figure 2. The Frequency of Female Students' IDLE Activities

The Differences in IDLE Activities Done by EFL Males and Females

The analysis was performed on data collected from 309 participants' completed questionnaires. Table 1 shows that the M for EFL males (N = 80) is 83.936 and the SD is 13.464 while the M for EFL females (N = 229) is 80.376 and the SD is 13.660. The independent t-test results revealed $p < 0.045$, indicating that there is a significant difference between males and females when performing IDLE. Table 2 demonstrates the existence of significant differences in six of the 24 IDLE activities, such as video chatting in English (Males' M = 2.675; Females' M =2.297), posting on social media (Males' M = 3.500; Females' M =3.786), playing games that use English as the language of instructions (Males' M = 4.200; Females' M =3.328), playing games that require written English communication (Males' M = 3.688; Females' M =2.786), playing games that require spoken English communication (Males' M = 3.438; Females' M =2.340), and contributing on English forums (Males' M = 2.588; Females' M =2.188).

Table 3. Males and Female Students' Descriptive Statistics

	Males (N = 80)		Females (N = 229)		*Sig. (2-tailed)*
	M	*SD*	*M*	*SD*	
IDLE Activities	83.938	13.464	80.376	13.660	0.045

*(*significant = p < 0.05)*

Table 4. The Differences in Males and Female Students' IDLE Activities

IDLE Activities	Males		Females		*Sig. (2-tailed)*
	M	*SD*	*M*	*SD*	
Writing short text messages in English.	3.613	0,849	3.742	0,811	0.758
Chatting on social media in English.	3.250	0,803	3.314	0,765	0.892
Video chatting in English.	2.675	1,041	2.297	1,059	0.006*
Listening to English songs.	4.613	0,684	4.642	0,609	0.573
Listening to English podcasts.	3.288	1,081	3.105	1,029	0.060
Reading social media posts in English.	4.213	0,758	4.332	0,665	0.815
Reading social media comments in English.	4.125	0,891	4.153	0,799	0.965
Watching English movies/dramas.	3.975	0,914	3.843	0,909	0.096
Watching foreign movies with English subtitles.	3.488	1,043	3.563	0,983	0.450
Reading online texts written in English.	3.863	0,868	3.900	0,802	0.658
Reading online comics written in English.	2.850	1,213	2.598	1,234	0.096
Reading e-books written in English.	3.163	0,974	3.328	1,065	0.091
Reading e-magazines written in English.	2.563	1,077	2.546	1,061	0.778
Reading e-news written in English.	3.004	1,123	3.004	1,002	0.437
Posting on social media in English.	3.500	0,968	3.786	0,885	0.025*
Posting comments on social media in English.	3.263	0,896	3.336	0,962	0.646
Playing games that use English as the language of instruction.	4.200	1,011	3.328	1,271	0.001*
Playing games that require written English communication.	3.688	1,109	2.786	1,226	0.001*
Playing games that require spoken English communication.	3.438	1,189	2.340	1,212	0.001*
Reading lyrics online	4.313	0,821	4.432	0,656	0.706
Watching tutorial videos on YouTube	3.963	0,878	4.052	0,765	0.249
Communicating online with overseas friends in English	2.813	1,303	2.546	1,160	0.244
Contributing to English forums	2.588	1,064	2.188	1,045	0.004*
Writing blogs/fan-fictions	1.700	1,060	1.638	0,939	0.203

*(*significant = p < 0.05)*

Discussion

The current study sought to investigate the differences in IDLE activities usually undertaken by EFL male and female students, as well as how they use IDLE to facilitate language learning. In response to the research question, the findings indicated that there is a significant difference between males and females when performing IDLE, which supported the findings of previous studies (see Dolch, 2020; Jensen, 2017; Muñoz, 2020; Xodabande, 2018). However, the findings of this study suggested that males were more engaged in using technology for learning purposes, contradicting previous studies

that claimed females had more positive attitudes and willingness to use technology for learning (see Casillas et al., 2017; Ramírez-Correa et al., 2015; Suana, 2018). Perhaps, the interesting activities and informal atmospheres of IDLE motivated males to indulge more than females as these characteristics suit male students who like using technology for entertainment purposes (Suana 2018). Regarding the specific differences, the results suggested that males indulged more in gaming activities, corroborating previous studies' findings that found males played games more than females for learning purposes (see Jensen, 2017; Muñoz, 2020; Xodabande, 2018). The findings also indicated that females indulged more frequently on social media than males did, echoing Dolch's (2020) study findings that females were more engaged on social networks for learning purposes than males.

Out of six significant differences in IDLE activities done by male and female students, male students overrated their female counterparts in five IDLE activities those are video chatting in English; playing games that use English as the language of instructions; playing games that require written English communication; playing games that require spoken English communication; contributing on English forum. Meanwhile, female students only got higher mean scores on one IDLE activity which is posting on social media in English. This present finding is contradicted by Muñoz's (2020) study finding which discovered female students were more engaged in various IDLE activities than their male counterparts.

This study's findings have some implications for teaching English inside the classroom as well as outside the classroom. First, EFL teachers can consider various IDLE activities based on gender preferences to boost students' engagement when acquiring English. By this, EFL teachers may provide the option of IDLE activities for students to foster learning autonomy as proposed by Xodabande (2018) in his study. Second, teachers may use this finding as a basis for the instruction of out-of-class activities that can support students' English skills proficiency. For instance, for males who tend to use gaming more to learn English, the teacher can ask them to write the vocabulary that they got from the game and present it in the classroom. Otherwise, teachers can treat female students by asking them to write the vocabulary that they got from posting on social media in English. As a result, teachers can teach the student more contextually because further, from their

favorite IDLE activities, teachers can ask students to write simple writing related to their favorite IDLE activities and then perform it by speaking in front of the class.

Third, from the current findings of lists of the most and the least IDLE activities done by gender, teachers have a lot of references for IDLE activities that can be done to support classroom learning or can be done as supplement activities to outside classroom activities to support students' English proficiency. Lastly, the teacher can try to do a simple experiment in teaching by giving the freedom for students to choose IDLE activities that are presented in this study. Otherwise, teachers can group males and females who have different favorite IDLE activities to work together so that both of them can experience IDLE activities that they have rarely done before. Thus, teachers can consider many engaging and meaningful English learning activities by considering the result of this present study in a gender context.

CONCLUSIONS AND SUGGESTIONS

Conclusions

This present study found there are statistically significant differences in IDLE activities undertaken by male and female students. The sample independent t-test data discovered there are six significant items out of 24 items. Those sixth items are video chatting in English (Males' M = 2.675; Females' M =2.297), posting on social media (Males' M = 3.500; Females' M =3.786), playing games that use English as the language of instructions (Males' M = 4.200; Females' M =3.328), playing games that require written English communication (Males' M = 3.688; Females' M =2.786), playing games that require spoken English communication (Males' M = 3.438; Females' M =2.340), and contributing on English forums (Males' M = 2.588; Females' M =2.188). As shown in the data, male students are more highly engaged in IDLE activities compared to females where females only got a higher mean score on one IDLE activity which is posting on social media in English. Thus, the significant differences in IDLE activities show that male and female students are different when using digital media to learn English informally, furthermore, can be a sign that suitable learning activities for genders might support the process of language acquisition effectively.

Suggestions

There are a few suggestions related to the finding in this present study. EFL teachers should be able to integrate IDLE activities into their classrooms by considering gender preference to maximize students' learning engagement. IDLE activities is a flexible learning activity that can be maximized by EFL teachers to expose in the classroom and outside the classroom. Therefore, EFL teachers should be able to guide students to various IDLE activities by still realizing gender disparity. Gender became matters because although it looks like a simple case, it affects students' motivations. For instance, as reported in this present study, female students who are mostly not familiar with gaming activities, it might make some females uncomfortable with the activities. In another instance, as reported by the current study, some male students who are mostly not really into social media also might feel stressed when teachers ask them to post something on social media. Nevertheless, IDLE activities and gender as the main topic of this present study still can be explored further by using other various methods of approaches and data collection such as conducting a semi-structured interview to find in detail how male and female students do IDLE to facilitate their English learning.

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