

THE USE OF DIGITAL TECHNOLOGY IN INFORMAL ENGLISH LANGUAGE LEARNING: HOW THE PRACTICES SUPPORT LEARNING OUTCOMES?

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Abstract: The present study was conducted to investigate the use of digital technology in informal English language learning in a teacher training education faculty in Indonesia. It was done through surveys and open-ended questions to investigate. The survey on the use of digital devices for English learning was adapted, and the open-ended questions were developed to find out more information about the way how they use digital tools beyond classroom English learning activities. To analyze the data, descriptive quantitative and thematic analysis were employed. The results show that several digital applications were used by the students of teacher training education faculty to help them learn English vocabulary and the way how they used them was discussed including the various resources used by participants.

Keywords: English Learning Outcomes, Informal Digital Learning of English (IDLE)

INTRODUCTION

Recently, there have been quite drastic changes in the use of media as mentioned by Richard (2015) as a *changing face of language learning*. The media in education, which usually uses realia or other teaching aids, is now turning to digital media. Therefore, digital tools are getting more attention in research areas of language learning. Based on how digital media works and how it works for education, this research was carried out to figure out how the students of teacher training education used the digital tools to support their English learning. The way they use the digital tools for learning can help English teachers to consider various tools of digital media for language learning. The various tools can be used in both informal and formal learning activities. It can help the teachers help their students to be independent in English language learning.

The informal learning of English, Benson (2011) called it as informal *digital learning of English (IDLE)*. The IDLE focuses on two learning activities, the extracurricular and extramural, which have several characteristics in terms of particular contexts. Lee & Lee (2019) describe IDLE as a “self-directed, naturalistic, digital learning of English in a formless environment, outside the classroom, and independent of formal language programs. The use of digital tools to increase English vocabulary in this era of digital media is very influential in the learning process due to its accessibility. Lee & Dressman (2018) have the same opinion about IDLE which is explained as independent learning using a variety of different digital devices (e.g. the use of *smartphones, MP3, TV, computers, and laptops*) and resources (such as the internet, blogs, etc.). *Facebook, Skype, online games, and web applications*) regardless of the formal context. Without realizing it, this method can help develop an understanding of English and enrich vocabulary. However, IDLE is a challenge in itself that requires teachers to seek more information about this context. For that purpose, the present study aims to determine how much influence IDLE activities are in the process of developing vocabulary in English. It shows the process of the *IDLE* practices for vocabulary building.

Based on these needs, this study seeks to address the following questions: 1) To what the students of teacher training education faculty use digital learning tools to learn English in an informal learning context? 2) What digital technology tools do they use to support their English learning?

METHOD

This study, the authors used mixed methods to figure out the extent to which participants used *IDLE* in supporting English learning. The data were collected quantitatively and qualitatively through a survey and open-ended questions. The 151 participants fulfilled the online form voluntarily after the the first, third and fourth authors informed the participants about the components of the study (eg, objectives, steps, and benefits/risks). They signed a consent form and filled out the questionnaire. All authors supervised the entire process of filling out the questionnaire.

The instrument consists of five parts and was developed with reference from Lee (2019). Part 1 contains student consent to become research respondents, Part 2 consists of a nominal scale to identify respondents' demographic information, Part 3 consists of a nominal scale to determine English learning activities with digital devices, and Part 4 consists of open questions about how to use digital technology to supports learning English, and the last part contains appreciation for participants.

The qualitative instrument consisted of three open-ended questions. The researcher modified Lai et al (2015) open-ended questions and asked the participants to answer the following questions: 1) what media do you use to improve your English skills? (Example: Movies, Games, Comics, etc.) Explain why you chose these media?; 2) how do you study to improve your English skills using digital technology?; 3) what do you think about your English learning outcomes using digital technology (Ex: *YouTube, Games, Comic*, etc.)? The open-ended questions aim to seek and explore information on how they learn English. Arranged in such a way that participants can provide appropriate and in-depth answers according to the real situation.

A total of 151 active students from the Faculty of Teacher Training and Education (male, n= 21,13.9%; female, n = 130, 81.6%) from an Islamic University in DKI Jakarta Province were recruited for this study. In this research, respondents mean age was 21, consisting of freshmen (n = 4, 2.65%), sophomores (n = 6, 3.97%), third-year students (n = 86, 56.95%), and fourth-year students (n = 55, 36,42%). They have studied English for an average of 11-15 years at the time of learning the language.

Table 1: Demographic Information of Participants

Demographic	N	%
Gender		
Female	130	86,10%
Male	21	13,90%
Age (Years)		
18-21	97	64,20%
22-25	54	35,80%
English learning experience (years)		

01-May	26	17,20%
06-Oct	17	11,30%
Nov-15	85	56,30%
16-20	23	15,20%
Semester		
2	4	2,65%
4	6	3,97%
6	86	56,95%
8	55	36,42%

To support the quantitative data from the questionnaire, the authors took 10 respondents who were selected based on certain considerations in answering open-ended questions. This was carried to get an idea of how students practice using digital technology to support English learning outcomes. The respondents are active students from the Faculty of Teacher Training and Education (male, n = 4; female, n = 6) from an Islamic University in DKI Jakarta Province. They are from the fourth until the eighth semester and learn English for around 1-15 years.

Descriptive statistical measures such as mean (M), median (Me), and standard deviation (SD) were analyzed using IBM SPSS Statistics software version 24. Second, the reliability of the questionnaire was assessed through Cronbach's alpha (α). It turned out that for all factors exceeding the minimum threshold of 0.9 which indicates that the questionnaire is very reliable. Third, regression analysis was conducted to examine whether or to what extent the quantity, receptive activity, and productive activity in the use of technology in *IDLE*. This allows for support for learning English. Based on Creswell (2007), the qualitative data of the open-ended questions were used to inform further quantitative data. After achieving intercoder reliability of 91.23%, relevant citations to open-ended questions are reported in the results section.

Validity and Reliability

The demographic data presented are derived from the results of the participants' questionnaires which were tested for validity and reliability. Of the 13 total questions in the questionnaire, all of the questions were tested to be valid. The question is also tested for its level of reliability. Based on the results of the reliability test, it is evident that the questionnaire questions have a very high level of reliability or are called very reliable. With the results of the validity test, it can be stated that the questionnaire questions are appropriate or accurate as instruments in measurement. The results of the reliability test also show that the instrument used is consistent and reliable as a measuring tool.

Table 2: Validity Test for Questionnaire Questions

<i>Item</i>	<i>Rxy</i>	<i>Rtabel</i>	<i>Status</i>
1	0,7222074601	0,1598	<i>Valid</i>
2	0,6931242845	0,1598	<i>Valid</i>
3	0,7112298647	0,1598	<i>Valid</i>
4	0,6566174669	0,1598	<i>Valid</i>
5	0,663812416	0,1598	<i>Valid</i>
6	0,6621465679	0,1598	<i>Valid</i>
7	0,6760953096	0,1598	<i>Valid</i>
8	0,7949511186	0,1598	<i>Valid</i>
9	0,7780949509	0,1598	<i>Valid</i>

Item	Rxy	Rtabel	Status
10	0,7208309062	0,1598	Valid
11	0,7485580253	0,1598	Valid
12	0,7573313149	0,1598	Valid

Table 3: Reliability Test

Item Variant	0,970
Number of Item Variants	15,170
Total Variant	92,643
R11	0,912
Reliability	Very High

Table 4: Reliability Test Results

Reliability Coefficient	Interpretation
91,23%	Very Reliable

FINDINGS AND DISCUSSION

Descriptive Statistics

Demographic data were collected from students of the Faculty of Teacher Training and Education at an Islamic University in Jakarta. There are 12 study programs that are part of this research. Overall, all of the participants had formal and informal learning experiences in English. Some participants use their time to explore by learning English informally, namely by using digital media, namely applications that present English as the main or companion language.

Table 5: Mean, Median, and Standard Deviation

Question	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
Mean	2,8	2,8	3,3	2,5	2,6	2,8	3,1	2,4	2,8	2,5	2,4	2,6
Median	3	3	3	2	3	3	3	2	3	2	2	2
Standard deviation	0,98	0,94	1,12	1,17	1,2	1,1	1,07	1,14	1,08	1,08	1,25	1,29

Table 6 shows the mean, median, and standard deviation data. The median is the middle value in the data presented. 12 questions are calculated for the median, and there are 2 median values, namely Median 2 and Median 3. A value of 2 means rarely and a value of 3 means sometimes. It can be concluded that the participants still sometimes (2 or 3 times a week) or rarely (1 time a week) do certain activities to improve their English.

Regarding descriptive statistics, students were more involved in IDLE receptive activities (e.g. watching English cartoons online/on TV; $M = 3.3$, $SD = 1.12$) than in IDLE productive activities (e.g. communicating using English on social media; $M = 3.1$, $SD = 1.07$). Students were more often involved in activities for example "listening to English news programs online or on TV" ($M: 2.8$ $SD: 0.98$) compared to activities "using technology to communicate with foreigners other than native speakers (such as Japanese people), China, India, etc.) using English" ($M: 2.6$ $SD: 1.29$).

Thematic Analysis

Media Used to Improve English Skills

This theme provides explanations and answers about digital media that are widely used by participants to learn English. This gives a new perception that any application can be a means to learn English informally which will result in an increase in English language skills both in understanding and increasing vocabulary. In addition to what applications or digital media they use in learning English, in this section the researchers also get the reasons why participants use the application. Each reason given is information that can add depth to the results of this study.

In the data that has been analyzed, it can be seen that there are several applications or digital media used by students who are participants in this study. The media mentioned are applications that are very often used by several groups, especially students. However, there are applications of digital media that are only used by a few students. Some of them are *Movies, Games, YouTube, Twitter, Music, Online Comics, Webtoon, Wattpad, Alternative Universe (AU), and Discord*. The applications of digital media that have been mentioned are some of the other media that can be used for Informal English learning.

There are reasons for each of the participants' choices that help them become fluent in learning English. Films and games are one of the media used for learning and one of the participants in S1 said the reasons are:

The reason is that in addition to having fun but also able to learn a little English.

In addition to the pleasure that can help to learn English, there are other reasons expressed by other participants. S2 says the reasons are:

Because watching English films using subtitles or not, it can help us in using stone vocabulary in English.

Apart from movies and games, other applications help the process of learning English informally, namely online comics, *Wattpad, Alternative Universe (AU), and Webtoon* which is an online reading application. One of the participants, S9, explained the reasons for using the application:

The reason is that the media is easy to find and also fun, so it doesn't feel burdensome and not boring.

Discord is also an application used for informal learning, S10 said the reason for using the application is:

Provide a means to speak with native speakers/fellow English learners. I also play games that have a chat feature to interact with other English-speaking players.

Another application that is often used by participants is *YouTube*. This application is an application that is very commonly used to learn English informally for various reasons. One of the reasons stated by S3:

The reason is that there is a translation so you can learn while you sometimes don't use a translation for your practice

From this theme, it can be concluded that many applications can be used to learn English informally. All applications that can help English language skills will certainly provide improvements along with the comfort of using it. Therefore, every reason given by the participants is a form of interest in learning English informally through digital media. It also

found that the affective variables can be one of the keys to willingness to communicate (Lee & Drajadi, 2019), as participants S9 experienced.

How to Learn English with Digital Media

The theme that emerges from the open-ended question is a theme that explains how participants can improve their English skills. The thing that needs to be considered in the process of learning English is that the participants use digital technology as a means of their informal learning. Each participant has their way and method to learn English to improve their ability. Informal learning supported by digital technology provides opportunities for everyone, especially students, to learn English independently. The method used adapts to the needs of each student to achieve and hone his ability to speak English.

Participants gave their opinions and their experiences in learning English, one of which S5 said the methods used to learn were:

Through listening to songs and podcasts on Spotify, watching movies, watching English videos on YouTube, and reading news or other English content. Similar to Movies and Songs, I can listen, watch, and also read them repeatedly so that I can remember well the vocabulary, accents, and idioms that I get from these various contents.

In addition to the participants above, other ways are usually used by Masters in learning English, namely:

Usually when watching movies in English and don't know the meaning, what you do is try to find out what it means on Google and try to understand what it means

Watching, listening, searching for the meaning of words and other methods used by some participants are some of the ways that can be used. The S8 shows the way it is usually used, namely:

I did the modification technique and observed the imitation of the modification. And the topic I choose is the topic I like

In speaking English, various kinds of skills can be honed, such as S10 which has its way to hone its abilities, namely:

Increase the intensity of speaking English through technology media.

From the theme, the authors can see that various ways can be used to learn English, although learning English is done informally with the help of digital media but it does not hinder the opportunity to improve their English skills.

Results of Learning English with Digital Media

IDLE is an important point in this research. IDLE wants to show whether informal learning with the help of digital media can help improve one's English skills or not. In the previous section, the results and opinions of the participants regarding the informal learning process with digital media have been shown. Of course, these two things must show an impact on those who do it.

In some of the participants' statements, it can be seen that they felt an improvement in the process of learning English which they tried independently. Digital media and informal learning methods have quite a good impact on the students who are participants. One of the

participants gave an answered regarding the results of learning English informally with the help of digital media, S5 said his opinion, namely:

Seventy-five percent (75%) there was an increase. Although not completely perfect. But I understand a little grammar and I am confident in my English writing, but my speaking is still very lacking

The increase felt by S4 was also felt by S5 with the answers:

My learning outcomes have greatly improved, and I find digital technology very helpful. Maybe starting from getting a lot of new vocabulary and idioms, knowing the correct pronunciation of words/sentences, listening, and speaking also improves because I mostly watch and listen. So, I got a lot of new knowledge, especially those related to English, as long as I learned to use digital technology.

The improvement felt by students is certainly helped by the digital media they use optimally and clearly. S9 expressed his opinion regarding his learning outcomes informally and with the help of digital media, namely:

In my opinion, if you learn to use media such as YouTube, games, comics, etc., the learning will be fun. If learning is comfortable and fun, then the results will be good. So far, I have learned by choosing media that are fun so that I enjoy it and not be burdened.

There was an increase felt by other participants but there were participants who felt they still needed other means besides digital media. S6 said his opinion on the matter.

In my opinion, the results of learning English through digital media, one of which is YouTube, can be said to be good, but I am the type of person who when learning new things, especially learning a foreign language or English, prefers to study directly with someone who can master it. Because I think it's more effective for me. Because not mostly theory but more directly to practice.

The results of learning English with digital media and learning informally provide improvements for the participants and they feel very helpful with this. The perceived improvement is of course accompanied by the right method and also digital media in accordance with what English skills you want to master. However, in the process, some participants felt they still needed other help to finalize their learning process and this was a natural thing. considering that everyone has their own way of learning and methods to develop their abilities. This does not preclude the fact that IDLE helps improve the participants' English proficiency.

The other results show that the involvement of the use of digital technology provides proved informal English learning outcomes for students. They feel useful with the help of using digital technology in this IDLE activity. However, some students who feel that they are lacking in learning using IDLE, for example, they feel they still need other assistance to finalize the learning process to produce maximum learning. In other words, students gain increased proficiency in English through IDLE (e.g. watching movies in English or using social media in English), and the number of IDLE activities determines how their learning results improve. Previous research, Lee (2017), discusses how much informal digital English learning (IDLE) activity quantity (frequency/time) and quality (diversity) contributed to second language (L2) vocabulary outcomes.

Another significant finding is that qualitative strengthens the results of quantitative data, namely, that it is often assisted in the use of IDLE in English learning, as in the case of Student 2 (S2), or the use of digital technology in Informal Digital Learning of English learning. English (IDLE), as in the case of Student 5 (S5). As a result, student learning can improve their skills in new vocabulary, pronunciation, listening, and speaking. This shows that the students of the Faculty of Teacher Training and Education are regularly involved in receptive IDLE activities by watching movies, reading comics, and listening to music in English. This finding corroborates previous research by Ke & Cahyani (2014); Sung (2018) which shows that more exposure to varieties of English in spoken or written form will help students maintain positive perceptions of various forms or users of English. However, the previous study was an intervention study in which researchers designed EIL activities in an artificial situation. In this regard, this study may offer new empirical insights into how students' autonomous engagement with IDLE activities in real-life situations can play an important role in improving English learning outcomes.

In addition, students' engagement with digital technology quality on IDLE serves as a significant predictor of their level of vocabulary knowledge the predictive power of a regression model that was not evaluated in previous work (Sundqvist & Sylvén, 2014; Sylvén & Sundqvist, 2012). On this basis, it seems reasonable to suggest that students who are more involved in the quality of IDLE activities by using this digital technology can provide improvements for students and they find it very helpful. Although, some feel they are still not helped because there is no guidance from more experts, making it difficult for them to understand learning English on their own using digital technology with IDLE. In this study, various ways of using students in English learning activities with IDLE involve many digital technologies (for example, online games, social media, films, music, and digital English comics).

In particular, these findings also have important implications for students and teachers. IDLE activities can be one of the more effective ways to overcome learning conditions that are fun and not monotonous. As a starting point for IDLE activities, students can take advantage of existing digital technologies (e.g., satellite television, movies, high-speed Internet, smartphones, 3D virtual environments, social media, etc.). However, it is important to note that, as discussed in this study, not every interaction with technology outside the classroom has the same impact. In this case, the teacher plays an important role in influencing the use of technology by students outside the classroom. Based on current research and other research (Lai, 2013), teachers need to understand how diversity, in terms of language learning activities, can serve as a key to the quality of students' IDLE experiences.

CONCLUSION

This study describes the use of IDLE in improving English vocabulary. The quantity of use of digital media in informal learning indirectly improves the English language skills of the students of the Faculty of Teacher Training and Education (*FKIP*) at an Islamic University in DKI Jakarta. Each student has their own method or way of learning to improve their English language skills. The students choose digital media as a means of informal learning. They often carry out English learning activities such as reading, watching, listening, and writing informally through digital media. There are several digital media used by students including *Games, Films, Music, Online Comics, YouTube, Twitter, Webtoon, Wattpad, Alternative Universe (AU), and Discord*. By using digital media, students feel that their informal learning is helped. Because the application or digital media they choose for informal learning has its own convenience and they find it helpful in improving their English skills. But some still need direct learning or face-to-face with others outside using digital media as informal learning.

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