

**INVESTIGATING UNIVERSITY STUDENTS' USE OF SMARTPHONE FEATURES IN
ONLINE LEARNING: A SURVEY STUDY**

A Thesis

**Presented to the Department of English Language Education as Partial
Fulfillment of the Requirements to Obtain the *Sarjana Pendidikan* Degree in
English Language Education**



Written by:

Abdan Islah Trisnadi

18322094

**DEPARTMENT OF ENGLISH LANGUAGE EDUCATION
FACULTY OF PSYCHOLOGY AND SOCIOCULTURAL SCIENCES
ISLAMIC UNIVERSITY OF INDONESIA
YOGYAKARTA
2023**

APPROVAL SHEET

**INVESTIGATING UNIVERSITY STUDENTS' USE OF SMARTPHONE FEATURES IN
ONLINE LEARNING: A SURVEY STUDY**

By:

Abdan Islah Trisnadi

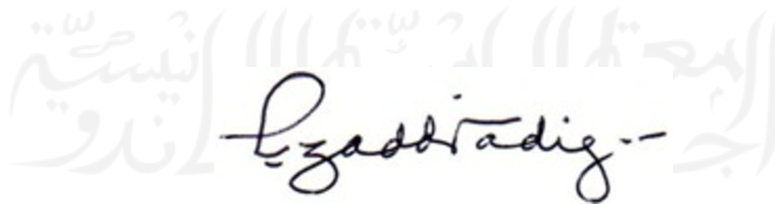
18322094



Approved on January 5, 2023

By:

Supervisor



Nizamuddin Sadiq, S.Pd., M.Hum., Ph.D
NIP. 197603012005011001

RATIFICATION SHEET
INVESTIGATING UNIVERSITY STUDENTS' USE OF SMARTPHONE FEATURES IN
ONLINE LEARNING: A SURVEY STUDY

By:

Abdan Islah Trisnadi

18322094

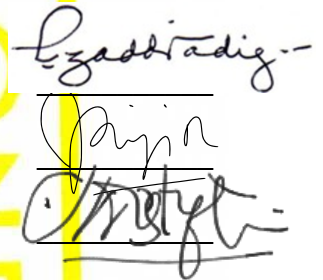
Defended before the Board of Examiners on January 5, 2023, and Declared Acceptable.

Board of Examiners

Chairperson : Nizamuddin Sadiq, S.Pd., M.Hum., Ph.D

First Examiner : Puji Rahayu S.Pd., M.LS.T., Ph.D.

Second Examiner : Dr. Ista Maharsi S.S., M.Hum.



Yogyakarta, January 5, 2023

Department of English Language Education

Faculty of Psychology and Sociocultural Sciences

Islamic University of Indonesia

Head of Department



Puji Rahayu S.Pd., M.LS.T., Ph.D.

NIP. 053310402

STATEMENT OF WORK'S ORIGINALITY

I honestly declare that this thesis, which I have written, does not contain the work or parts of the work of other people, except those cited in the quotations and references, as a scientific paper should.

Yogyakarta, January 5, 2023

The Writer



Abdan Islah Trisnadi
18322094

MOTTO

“And if we build on our success every day [*sic*], however small, we can only put ourselves on the path that would lead us to a successful life where we achieve whatever it is we set out to achieve, fulfil whatever dream we have and implement whatever plan we create.” –Desi Anwar (Offline)



DEDICATION

In the name of Allah, the beneficent the merciful. I dedicate my thesis to:

MY SELF WHO PATIENT AND TOUGH

My beloved parents, Mr. Sutrisno and Mrs. Uun Estriyani, who always give me

everything thus I am able to be at this point

My only sibling, Dinda Kusuma Trisna Ayudha

My earlier supervisor, Mr. Adam S.S., M.Hum., and my latest supervisor, Mr.

Nizamuddin Sadiq, S.Pd., M.Hum., Ph.D., who always patiently guide me to finish my

undergraduate thesis

All of the PBI's lecturers who have taught me many of valuable lessons, and

All my relatives and friends who always become my supporters



ACKNOWLEDGEMENT



In the name of Allah, the beneficent the merciful

All the praises and thanks be to Allah SWT, the Lord of the ‘Alamin, and Prophet Muhammad SAW who have given me mercy in writing my undergraduate thesis as a partial fulfilment to obtain the *Sarjana Pendidikan* degree. Hence, this manuscript could spread the benefits for others.

First of all, I would like to thank my parents who always support me to achieve my dream. Also, a hundred of thanks for my supervisors both Mr. Adam S.S., M.Hum., and Mr. Nizamuddin Sadiq, S.Pd., M.Hum., Ph.D., who have guide and taught me patiently during the milestone thus I have been at this point.

Finally, I believe that this thesis is far from being perfect; however, I hope that this thesis would be useful for English teaching-learning process in online learning setting. Therefore, I greatly appreciate any criticism, ideas, and suggestions for the improvement of this thesis.

Yogyakarta, January 5, 2023

The Writer

Abdan Islah Trisnadi
18322094

TABLE OF CONTENT

APPROVAL SHEET	ii
RATIFICATION SHEET	iii
STATEMENT OF WORK'S ORIGINALITY	iv
MOTTO	v
DEDICATION	vi
ACKNOWLEDGEMENT	vii
TABLE OF CONTENT	viii
LIST OF TABLES	x
LIST OF FIGURES	x
LIST OF APPENDICES	xi
ABSTRACT	xiii
CHAPTER I	1
INTRODUCTION	1
1.1 Background of the Study	1
1.2 Purpose of the Study	2
1.3 Formulation of the Problem	2
1.4 Identification and Limitation of the Problem	3
1.5 Significance of the Study	3
CHAPTER II	4
LITERATURE REVIEW	4
2.1 Smartphone Features Usage for the Classroom (offline) Learning	4
2.2 Smartphone Features Usefulness in Online Learning	6
2.3 Review on Relevant Studies	8
2.4 The Flow of the Reviewed Literature	11
CHAPTER III	12
RESEARCH DESIGN	12
3.1 Research Design	12
3.2 Participants	12
3.3 Data Collecting Techniques	13

3.3.1	Research Instrument	13
3.3.1.1	Questionnaire	15
3.3.1.2	Reliability	16
3.4	Piloting Study	18
3.5	Data Analysis Techniques	18
3.5.1	Steps of Data Analysis Technique	18
CHAPTER IV		19
FINDINGS AND DISCUSSION		19
4.1	Research Results	19
4.2	Results of Quantitative Survey with Closed-Ended Questions	19
4.2.1	Statement 1	19
4.2.2	Statement 2	20
4.2.3	Statement 3	21
4.2.4	Statement 4	22
4.2.5	Statement 5	23
4.2.6	Statement 6	24
4.2.7	Statement 7	25
4.2.8	Statement 8	26
4.3	Results of Quantitative Survey with Open-Ended Questions	27
4.3.1	Open-Ended Question 1	28
4.3.2	Open-Ended Question 2	31
4.3.3	Open-Ended Question 3	32
4.3.4	Open-Ended Question 4	33
4.4	Discussion	34
CHAPTER V		39
CONCLUSION AND RECOMMENDATION		39
5.1	Conclusion	39
5.2	Recommendation	39
REFERENCES		40
APPENDICES		43

LIST OF TABLES

Table 1. The Adapted Items & Domain & the reformulated items into open-ended questions	13
Table 2. The parameter in answering the questionnaire by employing Likert-scale	15
Table 3. Validity test's result of each item	17
Table. 4. The results of open-ended questions	28



LIST OF FIGURES

Figure 1. Research flow of this study	11
Figure 2. Reliability score of the first domain by using Cronbach's Alpha method	18
Figure 3. Reliability score of the second domain by using Cronbach's Alpha method	18



LIST OF APPENDICES

Appendix 1. Approval Letter for Data Collection

47

Appendix 2. The E-questionnaire on Google Forms

48



INVESTIGATING UNIVERSITY STUDENTS' USE OF SMARTPHONE FEATURES IN ONLINE LEARNING: A SURVEY STUDY

Abdan Islah Trisnadi

18322094

ABSTRACT

This study was aimed to reveal the actual condition of smartphone features usage by university students as their online learning tools during the Covid-19 pandemic whether the practice led to positive or negative assistance. This study was a quantitative survey study as it used an adapted questionnaire that administered to forty-two (42) respondents in a population which comprised of seventy (70) English Language Education students in an Islamic private university in Yogyakarta by using simple random sampling. The study reported that the students use smartphone features to support their online learning through some activities such as opening, browsing, sharing, discussing, and managing their online assignments. Furthermore, the students believed that smartphone features might possibly create a chance to facilitate an ergonomic learning tool by functioning smartphone features' multitasking ability. In sum, university students brought smartphone features as advantageous online learning tools to keep connecting them to the university life. However, because of this study designed as a small survey study, that kind of result should be standing on the broader scope and specific matter. In other words, a larger-future study is needed to possibly facilitate a big result thus there will be a data that could be used to generalize how every university students make use of smartphone features in online learning.

Keywords: smartphone, smartphone features, online learning

CHAPTER I

INTRODUCTION

This chapter describes the relevant background of this study. This information includes the background of the study, the identification of the problem, the limitation of the problem, the formulation of the problem, the objective of the study, and the significance of the study.

1.1 Background of the Study

The use of smartphones to support online learning has been obvious as these devices provide many features to accommodate this kind of learning, particularly in this pandemic that has lasted for almost three years. The result of previous studies (Ariel & Elishar-Malka, 2019; Bomhold, 2013; Demouy, Jones, Kan, Kukulska-Hulme, & Eardley, 2015; Masadeh 2021; Şad, Özer, Yakar, & Öztürk, 2020) show that smartphones share the following features in academic activities: a) smartphones portability makes the learning needs stay accessible among students to facilitate their online learning, b) smartphones could collect learning materials, puzzle equivocal material, and access information released by universities, c) smartphones could share lecture learning materials to the students, and d) smartphones offer related services for linguistics needs such as dictionaries and translators.

More specifically, Masadeh (2021), in his investigation of smartphone use in learning by aiming toward Saudi university students' perceptions of the ease, usefulness, effects, and barriers in using smartphones as the pandemic online learning tool, revealed that major students were acquiescent to smartphones perceived usefulness and ease of use during online learning. In addition, the study identified some barriers that inhibit smartphones' functionality for online learning. For instance, smartphones consume a lot of internet data, unstable internet connectivity, and smartphones unexpectedly can freeze during usage. Furthermore, Ariel and Elishar-Malka

(2019), who investigated the roles of smartphones in the classroom, found that smartphones were agreed to be useful devices for expanding knowledge and assisting academic practice. It was, however, also reported that the devices were only slightly seen in a positive view of classroom assistance, not many who realize that the actual role of the devices is in a good way. Consequently, it was only viewed to interfere with the classroom activity. Another study by Bomhold (2013), which investigated application (app) usage on smartphones by American undergraduate students, was intended to study the use of smartphones whether or not students use smartphone apps more than for communication and entertainment. The results demonstrated that the students used apps more than for leisure activities. They used it for academic purposes by using apps such as search engines, dictionaries, e-libraries, online encyclopedias, and using tools on it such as calculators and flashcards.

Those empirical studies cited above did not specifically study how their participants make use of smartphone features in their learning settings. Therefore, to fill this gap, this study investigates how university students use smartphone features during Covid-19 online learning.

1.2 Purpose of the Study

The present study attempts to describe university students' use of smartphone features in online learning during the period of Covid-19.

1.3 Formulation of the Problem

In conjunction with the purpose of this study, the researcher formulates the research question as follows: How do university students make use of smartphone features in their online learning during the Covid-19 pandemic?

1.4 Identification and Limitation of the Problem

Although smartphones are able to offer some advantages in the context of online learning, there are some usability problems that might interfere. For example, the smartphones' small screen size, limited storage, short battery life, internet connectivity, personal security, different use instructions in each app, excessive screen brightness in outdoor usage, and no protection in rainy conditions for physical environment usage (Kukulska-Hulme, 2007). Based upon those problems, the same smartphone usability problems might be identified by this study. However, this study limits the research upon investigating university students' use of smartphone features in their online learning during the Covid-19 pandemic.

1.5 Significance of the Study

The result of this study provides insights for students to make use of their smartphone features in their online learning process. Therefore, they could also practice using smartphone features to make their online learning more affordable.

CHAPTER II

LITERATURE REVIEW

This chapter reviews the literature related to the use of smartphone features. Moreover, this chapter presents topics such as smartphone features usage in education and their usefulness in online learning in different sub-chapter. Henceforth, it outlines the last three-five years' previous studies that are relevant to this study.

2.1 Smartphone Features Usage for the Classroom (offline) Learning

Integrating mobile devices in education has been greatly developing in the current date in which technology could not be replaced in humans' lives. Therefore, the use of smartphones in education demonstrates that information and communication technology has been presented in the classroom. With this in mind, most education institutions are characterized by integrating technological tools for educational purposes; for instance, utilizing smartphone features to transfer lecture material and opening the academic system (Ariel & Elishar-Malka, 2019). Meanwhile, Han and Shin (2016) assumed in their research that smartphone evolution has led higher education to increase the utilization of features of smartphones in their academic activity to mobilize the educators', students', and staff's needs and expectations. Hence, most university students afford smartphones and utilize their features for capturing the given notes from their lecturers through the device camera when they are learning in the classroom (Anshari, Almunawar, Shahrill, Wicaksono, & Huda, 2017). Henceforth, Albó, Leo, and Oliver (2019) asserted that integrating smartphones by making use of their features for educational purposes in a classroom is possibly able to extend positive effects like boosting students' motivation, enjoyment, flexibility, consistency, engagement, and convenience. Ko (2019), as an example, examined students' reactions to using smartphones and social media for vocabulary feedback. The study pointed out

four points that were perceived by students as a) boosting comfortable and active learning, b) enthusiasm and satisfaction improvement, c) collaboration enhancement, and d) word vocabulary increase. In addition, Ko (2019) highlighted that vocabulary feedback through smartphone features in the classroom could motivate students when they are feeling bored and tired due to conventional teaching-learning way, as the tool could function as a booster and as an alternative to learning resources or tools compared to the traditional classroom's books or handouts.

As built-in features in smartphones could promote a great atmosphere for learning, a lot of educators engage their students by capitalizing on their smartphone features to make interactive learning during class like applying game-based learning (GBL) through smartphone related-apps such as Kahoot! and Quizlet (Siebert, 2019). A study by Hou (2018) about Kahoot!'s impact as a formative assessment tool on university students' motivation to learn English in a university in Taiwan, suggested that this kind of app considerably influenced the students' learning motivation. Hou (2018) applied for Kahoot! at the end of the class session about 10–14 times in each different three classes as a review activity. Furthermore, Elsherbiny and Al Maamari (2020) highlighted that the same apps have a feature that is able to increase Omani university students' motivation to do revisions either in or off the classroom through their repetitive revision feature. Additionally, the apps have a feature to display score results and standing at the end of the game which might engage students to fix their scores (Elsherbiny & Al Maamari, 2020).

As GBL is able to create motivational learning, the use of the smartphone, its features of social networking, in particular, could also enable interaction and engagement between educators and students in the classroom. For example, Kim, Jeong, Ji, Lee, Kwon, and Jeon (2015), revealed that the use of Twitter's features (e.g., tweeting, grouping friends, polling, and direct message) for quizzes enhance interactive classrooms and improves students' engagement in lessons. Therefore,

smartphone capability for social networking through social media is able to allow quick sharing and feedback between educators and students. In addition, Gikas and Grant (2013) also found that the use of smartphone features' social networking could create spaces of interaction, hook collaborative learning, and encourage students to be creative by making learning content on social media apps.

In sum, the smartphone features usage for classroom learning could potentially engage the classroom nuance becomes interesting through its extended capabilities such as sharing lecture materials, documenting lecture materials, boosting students' learning engagement, and creating interactive classrooms. Moreover, benefiting smartphone features in the classroom should be precisely recognized by both students and educators, because the device's capabilities are helpful to be applied; it does not mean being borderless.

2.2 Smartphone Features Usefulness in Online Learning

Before the smartphone features' usefulness is further discussed, the definition of online learning needs to be addressed first. It is important since the term was inconsistently defined and used interchangeably with e-learning and distance learning. Moore, Deane, and Galyen (2011) defined e-Learning as web-based education, distance education is then explained as a learning style that runs both online and sometimes physically, while online learning is viewed as the newest version or upgraded version of distance learning. Another study explained explicitly that online learning is expressed as a learning experience mediated by the internet and technological tools which occurs either synchronously or asynchronously without needing a physical class among the students and the educators (Singh & Thurman, 2019). In conclusion, online learning is characteristically different in terms of its setting and technology from distance learning and e-

learning, as distance learning has not fully occurred online and e-learning uses web-based technologies to bridge educators and students.

Closure of universities which caused a shift in learning mode into online learning increases the use of smartphone social media as a possible learning tool to be employed in this uncertain time. Mulyono, Suryoputro, and Jamil (2021) studied social media, WhatsApp, regarding its acceptance among university students during online learning in Indonesia. They revealed that WhatsApp was perceived as a supporting tool by most students. Henceforth, the study found that WhatsApp was used by students for simultaneous learning such as sharing, asking, and discussing lecture materials, with their colleagues and lecturers. Therefore, the student respondents revealed in the study that the use of smartphone features' social networking could remain to connect them to learning during online learning. Similarly, Aduba and Mayowa-Adebara (2022) pointed out that educators could give explanations by using WhatsApp feature's audio as WhatsApp is an effective platform to bridge the gap between students and educators through its extended features like WhatsApp audio, WhatsApp file attachments, and the platform for one-on-one-focused discussion as well as group discussion.

In summary, those empirical studies show that smartphone features are useful for online learning platforms through the extended features. Additionally, they assist students and educators to stay connected through their features such as sharing and receiving lecture materials, enabling online consultation, attaching files and their oral explanations through a voice recorder, and creating online collaborative learning.

2.3 Review on Relevant Studies

Studies regarding university students' use of smartphone features as online learning tools during Covid-19 are massively studied by scholars as they want to explore the topic deeply and keep the topic updated. It is essential for recent researchers including novice researchers to support their papers with updated findings. Therefore, this study reviewed some previous studies from the last three-five years.

To begin with, a study by Annamalai and Kumar (2020), that aims to investigate Malaysian undergraduate students making use of smartphone features for completing their coursework during the Covid-19 online learning tool, found that students felt easy accessing the campus Learning Management System (LMS) through smartphones because of its portability rather than using a laptop which is likely cumbersome for them. Moreover, through a mixed-method approach, the study revealed that the student participants were trying to browse information on the internet using their own smartphones due to lecture materials that were received on LMS being equivocal, hence, they browsed them further to gain a better understanding.

Additionally, in a survey of 416 Bangladeshi university students, Biswas, Roy, and Roy (2020) revealed that 74% of students perceived that smartphone features could help minimize learning loss in online learning during the period of the Covid-19 pandemic. It means that the device features were believed to play a crucial role among the students in assisting their online learning needs. Furthermore, almost a quarter of the students said that by using smartphones they were helped to share course material effortlessly. Meanwhile, interestingly, 60% of the students did not consider the smartphones' small screen size was interrupting their online learning. It contradicts other studies (Annamalai & Kumar, 2020; Darko-Adjei, 2019) which pointed out that smartphone screen sizes were judged negatively by their respondents, only as a hindrance in

functioning this kind of technology in education including online learning. However, Albó et al (2019) opined that students are currently used to staring at a smartphone's small screen size to assist both their daily activities and academic lives that this technology is getting developed and accepted by the present users.

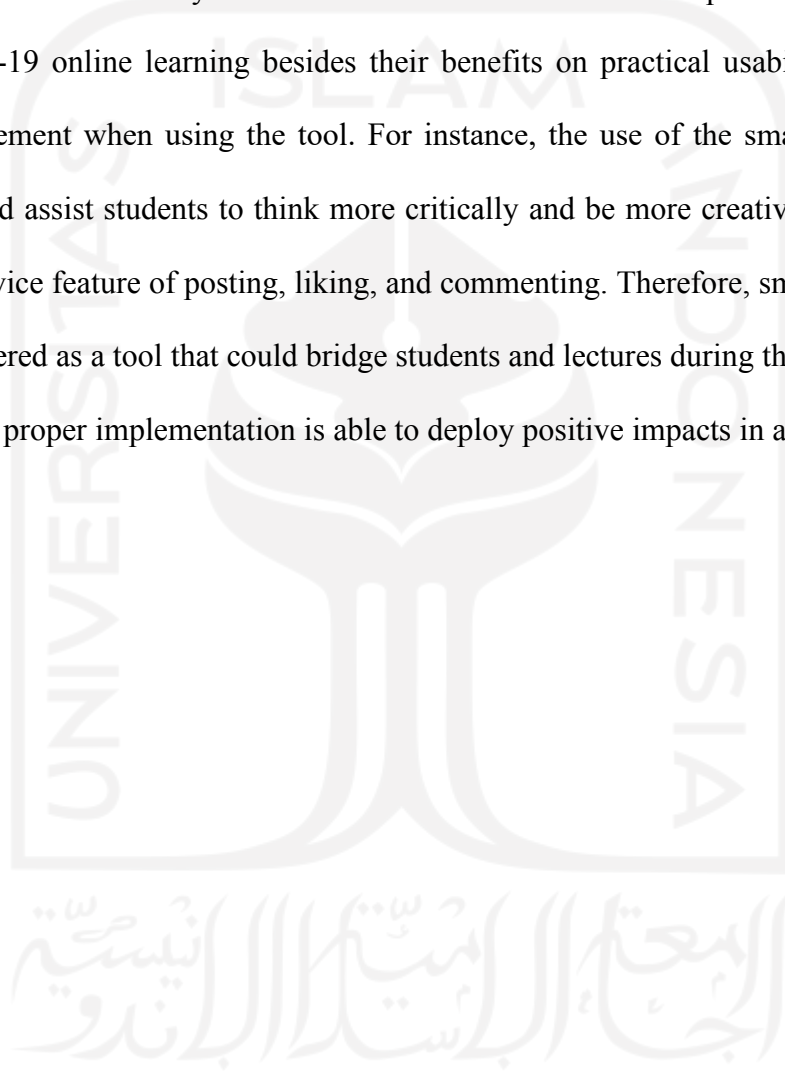
Furthermore, Sokhulu (2021) carried out a case study on South African university students and found that the students were assisted to type their essay assignments through smartphones during the Covid-19 online learning. Henceforth, the students revealed that smartphones extend one of their features, enabling them to have a video-audio meeting with colleagues or lecturers during the Covid-19 lockdown, namely, video teleconferencing apps (e.g., Zoom, Google Meet, & Skype).

Meanwhile, Ulla and Perales (2021) studied the use of smartphones as social media apps for online learning support for Thai students during the Covid-19 pandemic. By administering the survey questionnaire and semi-structured interview, the study found that the use of smartphone features' social media as a substitute for LMSs' roles had made students become resourceful due to a lot of content references that could assist them in doing their online tasks or homework. In addition, the social features of social media such as posting, liking, commenting, and sharing could stimulate students' critical thinking by sharing their opinions on lecturers' quiz posts.

Finally, Dai and Wu (2021) studied the usefulness of smartphone features as online pronunciation learning tools in a mixed-method study on Chinese EFL university students. The study pointed out that students were prompted to use the Chinese social networking app, WeChat, as a means of their English pronunciation learning. In addition, the students recorded their pronunciation performances and submitted them on WeChat to get online audio feedback from the supervisors. Meanwhile, WeChat also has an Automatic Speech Recognition (ASR) feature which

was functioned by Dai and Wu (2021) to inspect students' pronunciation during the study. Dai and Wu (2021) concluded that this mobile-assisted pronunciation learning improved the students' English pronunciation since the method could assist students to receive quick and individualized feedback in their own self-paced.

As such, there were many kinds of studies that concerned smartphone features usability during the Covid-19 online learning besides their benefits on practical usability like students' cognitive improvement when using the tool. For instance, the use of the smartphone feature's social media could assist students to think more critically and be more creative by sharing their notions on the device feature of posting, liking, and commenting. Therefore, smartphone features need to be considered as a tool that could bridge students and lectures during the Covid-19 online learning since the proper implementation is able to deploy positive impacts in academia.

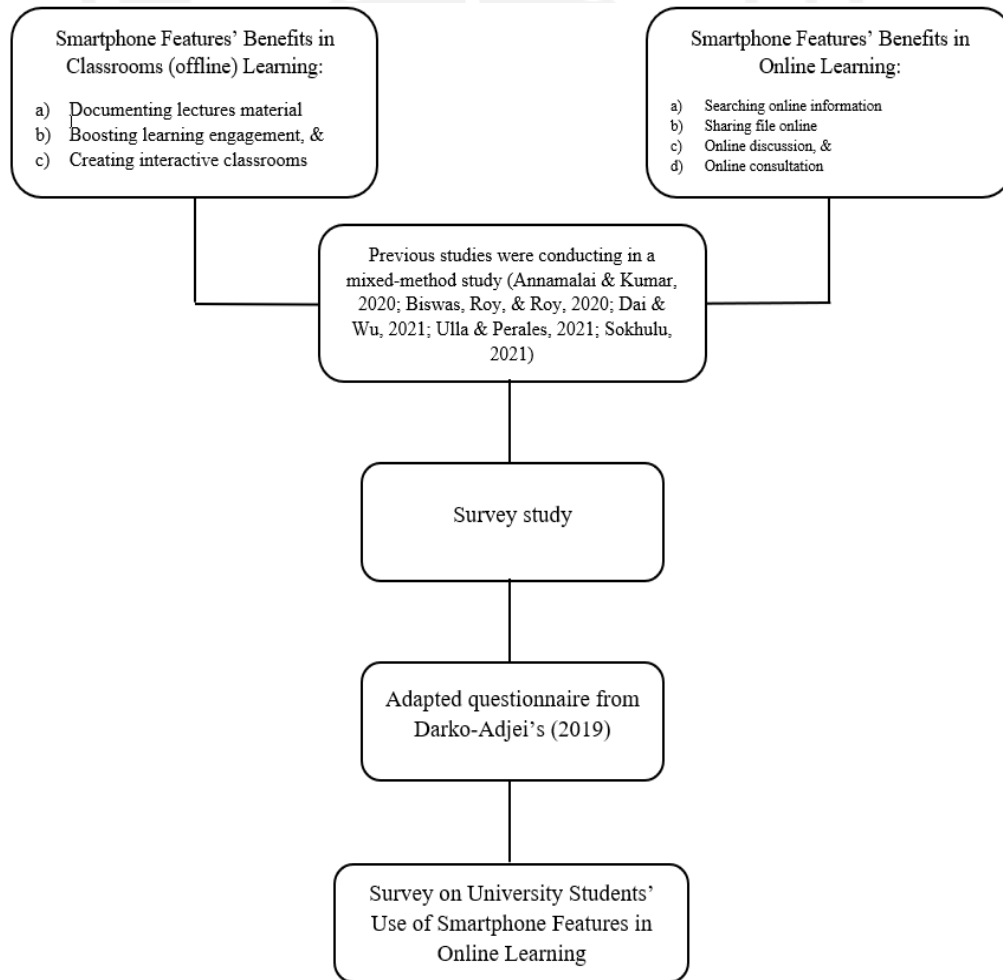


2.4 The Flow of the Reviewed Literature

This study concerns the issue of university students' use of smartphone features in online learning during the Covid-19 pandemic. Meanwhile, the researcher identified some benefits of using smartphone features in education in both offline and online learning settings. Furthermore, in order to answer the research question, this study employs a survey study that is mediated through an adapted questionnaire of Darko-Adjei's (2019). Here is a further illustration of the reviewed literature flow as illustrated in the flowchart below:

Figure 1

Research flow of this study



CHAPTER III

RESEARCH DESIGN

This chapter explains all about how this study processes the data. It further includes the research design, the research subject, the data collecting techniques, and the data analysis techniques.

3.1 Research Design

The research design of this study is quantitative research, besides this study uses a survey technique as it enables curating the perception of the research subject (i.e., university students) upon making use of smartphone features during their online learning. This research approach has a low-cost and efficient means, namely, a questionnaire which eases this study in recording the respondents' perceptions.

3.2 Participants

By using random sampling technique, this study participants were 42 students' batch 2019 of English Education in one of the Islamic universities in Yogyakarta. This study early got 43 participants in total and yet due to a respondent perfunctorily giving his thought upon the issue, this study excluded him from the data participant. Most of them were at 18–22 years of age. This study had been through a long process of collecting data due to the process that coincided with the community service program (*Kuliah Kerja Nyata* or KKN). Moreover, this study did not discriminate against any person or group to participate in the data collection just because of their gender or race.

The participants were recruited due to consideration that the participants from the batch have plentiful experiences that make them easier in perceiving smartphone features' usefulness as

an online learning tool because they have already experienced attending online courses since the very first learning-at-home mandated in the department.

In order to get permission for collecting data, the researcher invoked the department to get a *surat penelitian skripsi* (approval letter for data collection) by filling out an electronic consent form provided by the department. After receiving the consent form, the researcher negotiated with the students of batch 2019 regarding the study's objective and asked about their readiness as participants in this study.

3.3 Data Collecting Techniques

This section covers the flow of how the present study collects the data. It includes the instrument, the validity of the instrument, and the reliability of the instrument.

3.3.1 Research Instrument

This study adapted Darko-Adjei's (2019) questionnaire which originally consisted of 30 items and four domains. However, since the present study only highlights items that contain smartphone features, it was subtracted into twelve items that contain one domain Perceived Usefulness of Smartphone (eight items), and four open-ended questions (Table 1). The open-ended questions initially were taken from Darko-Adjei's (2019) origin statements, and yet those origin statements were invalid once piloted by this study. Therefore, the researcher developed the items into open-ended questions.

Table 1

The adapted items & domain & the reformulated items into open-ended questions

Items	Statements	Description
1	Smartphone helps me in quick access to information online	Domain's Perceived
2	Smartphone enables me to take a screenshot of material that cannot be memorized at the instance for a later date	

3	Smartphone enables me to record lectures delivered by my tutors	Usefulness of Smartphone	
4	Smartphone enables me to schedule my lecture activities with reminder		
5	I can easily access my e-mail (e.g., G-mail, Yahoo, etc) using smartphone		
6	Smartphone helps me to store all my lecture materials		
7	Smartphone helps me in sharing lecture materials among colleagues		
8	Smartphone enables me to use social media platform for class activities		
9	Which use of a smartphone that you prefer, for learning, for playing games, for social media, or other.....(write here & why?)		Open Ended-Questions
10	Do you think your smartphone features enable you to multitask? How is it going?		
11	Do you think the smartphone features that allow you to multitask help you manage your online learning? Could you elaborate on your answer by describing how it is going and giving an example of that?		
12	Do you think the smartphone features that allow you to multitask help you improve your academic performance? Could you elaborate on your answer by describing how it is going and giving an example of that?		

Moreover, the adapting process had been through some steps: 1) selecting the items that correlate with smartphone features, 2) changing some items' meaning into related context, 3) translating and making them into the local context, and 4) conducting a pilot experiment. In translating the items, the researcher employed the Back-to-Back Translation Technique to validate the translation from the source language (i.e., English) to the target language (i.e., *Bahasa Indonesia*) as it enquired two lecturers' assistance to review the researcher's translation accuracy.

Furthermore, this study piloted the adapted questionnaire upon 30 first respondents of the department students' batch 2018.

Additionally, in measuring respondents' level of agreement, this study supplemented the Likert-scaling method (Table 2). There are five answer options that could be chosen by the respondents as the smallest scale number (i.e., one) states *strongly disagree* and the biggest scale number (i.e., five) states *strongly agree*.

Table 2

The parameter in answering the questionnaire by employing Likert-scale

Description	Scale
Strongly disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly agree	5

3.3.1.1 Questionnaire

Initially, this study adapted the Darko-Adjei's (2019) questionnaire into two domains and 10 items, respectively, eight items of the domain "Perceived Usefulness of the Smartphone" and two items of the domain "The Effect of the Smartphone". Nevertheless, the researcher reformulated the last two items that were included in the domain of "The Effect of the Smartphone" into open-ended questions due to invalid statements that were presented during the reliability measurement. The researcher, besides, left The Effect of the Smartphone's domain as it was not in line with the present adapted items, the two items reversed the meaning from their original meaning, thus its intention is opposite to the statements.

Currently, the adapted questionnaire has one domain left, Perceived Usefulness of the Smartphone, with eight items in which the domain intends to measure users' degree of agreement

with smartphone features in enhancing their users' activities. Furthermore, the four open-ended questions were the result of reformulating from two adapted items of Darko-Adjei (2019) thus this study currently has 12 items in total, namely, eight items in form of statements and four items in form of open-ended questions.

This study decided to integrate the questionnaire into Google Forms which extends convenience and mobility in its usage. Therefore, the researcher could possibly administer the questionnaire anywhere and anytime in a link format which makes the data collection going flexible. Furthermore, this tool has already got famous in the department thus the participants do not need to relearn to use it. In spite of Google Forms being well-known in the department, the tool had been considered to be applied in order to avoid frequent physical meetings during this period. Additionally, students from the batch of 2019 are not yet obliged to stay in Yogyakarta due to the department currently only running hybrid classes for batch 2020 and 2021. Whereas, the process of administering the questionnaire occurred electronically via social media WhatsApp which was shared on the department's WhatsApp group and in a personal chat.

3.3.1.2 Reliability

The questionnaire was categorized as a reliable instrument after being piloted upon 30 first respondents. Meanwhile, a reliable questionnaire is an instrument that could ensue stable and consistent scores when employed by a researcher multiple times at different times (Creswell, 2012). This study decided to re-examine the instrument's consistency due to the dropping out process of some items to fit this study. Furthermore, this study employed Cronbach's Alpha measurement with Cronbach's Alpha score > 0.6 to be said reliable. Here is the reliability result of the present study presented in Figure 1 and Figure 2:

Figure 1

Reliability score of the first domain by using Cronbach's Alpha method

Case Processing Summary			
		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

Reliability Statistics	
Cronbach's Alpha	N of Items
.722	8

The figure shows that the eight items were reliable to be administered to the main target respondents as it said that the Cronbach's Alpha score, $0.722 > 0.6$. Whereas the items in the first domain were reliable, the last two items in the second domain were below 0.6 which means unreliable to be used (Figure 2). Therefore, the researcher discussed with the supervisor and afterward decided to reformulate the last two items (i.e., items number 9 & 10) into open-ended questions due to their reliability scores that do not reach the minimum score to be said as reliable items after being piloted upon 30 first respondents.

Figure 2

Reliability score of the second domain by using Cronbach's Alpha method

Case Processing Summary			
		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

Reliability Statistics	
Cronbach's Alpha	N of Items
.010	2

3.4 Piloting Study

As informed earlier, this study conducted a pilot study upon 30 first respondents from the department's students of batch 2018. It intended to examine the adapted questionnaire as the validity and the reliability of the adapted instrument need to be unveiled in order to determine its worthiness before being administered to the main target respondents. Furthermore, the procedure of conducting the pilot study was the same as the process of data collection upon the main target respondent, thereby the researcher was able to handle the process since it was scripted early.

In conclusion, the result showed that the eight items of the domain's Perceived Usefulness of the Smartphone were valid and it was also claimed in the two items of the last domain, The Effect of the Smartphone. The reliability, however, revealed a contrary result in which it said that only the domain' Perceived Usefulness of the Smartphone could be said reliable, thereby the last two items of the last domain were modified into open-ended questions.

3.5 Data Analysis Techniques

This subsection outlines the data analysis process of the present study which was mediated by a statistical analysis app. The following subsection explains the process into some points.

3.5.1 Steps of Data Analysis Technique

This study was conducting the data analysis using a statistical analysis app, namely, Microsoft Excel since the researcher considers that it was practical when used. Therefore, there are three stages of data analysis steps that had been passed electronically by the researcher during the research:

- 1) Exporting the Google Forms result into Google Spreadsheets
- 2) Inputting and organizing the questionnaire responses into Microsoft Excel, and
- 3) Inputting and presenting the questionnaire result in diagram or charts

CHAPTER IV

FINDINGS AND DISCUSSION

This chapter describes the results of data collection from the administered questionnaire that had been filled out by the target respondents. Furthermore, this chapter discusses the study's final results with other studies to be linked or justify the results.

4.1 Research Results

As the data collected through a questionnaire comprises closed-ended and open-ended questions the results of this study are reported two-fold. The first is the results of a quantitative survey with closed-ended questions and the second is a quantitative survey with open-ended questions. Detailed results are presented below.

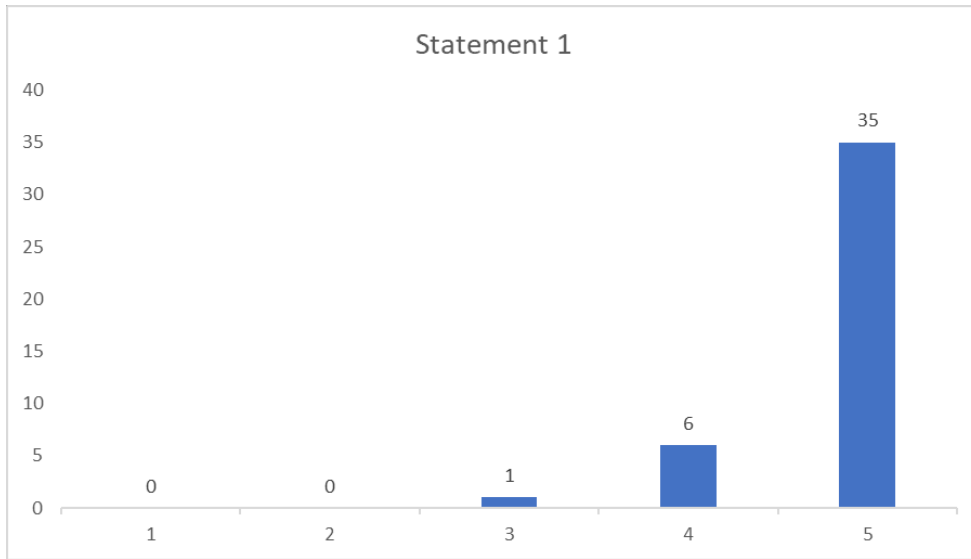
4.2 Results of Quantitative Survey with Closed-Ended Questions

The quantitative survey with closed-ended questions has eight statements. The results of the quantification of each question are reported below.

4.2.1 Statement 1

The first statement (item 1) is “Smartphone Helps Me in Quick Access to Information Online”. In chart 1, the majority of the respondents (83%, $n = 35$) strongly agree with the statement that smartphones help quick access to online information. Meanwhile, six respondents (14%, $n = 6$) agree with the statement. This percentage shows that the respondents primarily rely on this smartphone feature to receive instant information online. The distribution of respondents answering the first statement is displayed in chart 1.

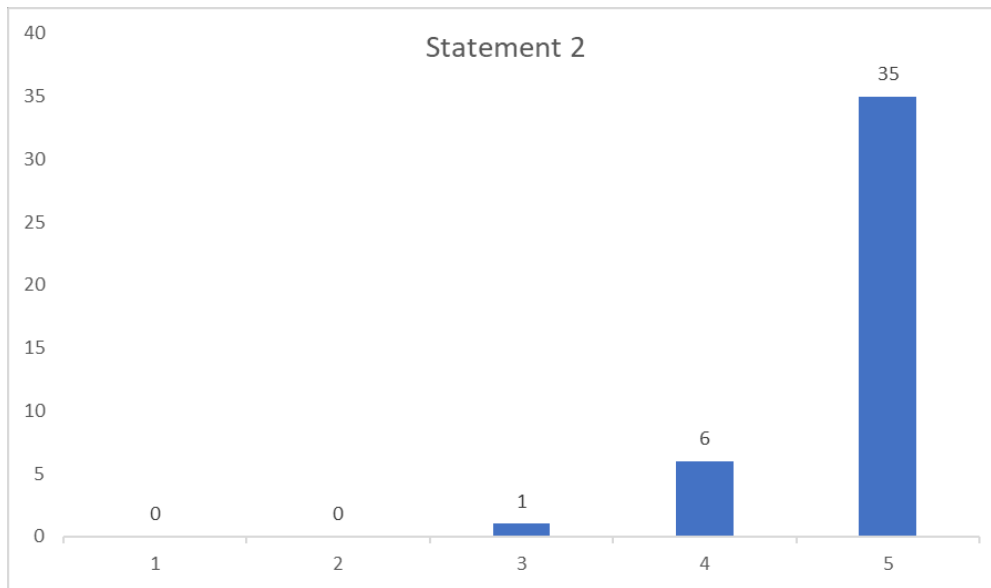
Chart 1



4.2.2 Statement 2

The following statement, “Smartphone enables me to take a screenshot of material that cannot be memorized at the instance for a later date” is related to using the smartphone’s feature of screenshots for academic purposes. The bar chart below shows that 83% (n = 35) of the respondents strongly agree with this smartphone feature while 14% (n = 6) of the respondents agree. Only one respondent (2%, n = 1) was “neutral” about the statement. Taking everything into account, the respondents majorly recognize that the screen capture feature assists them during online classes in memorizing the related contents for a later date. Chart 2 presents the results numerically.

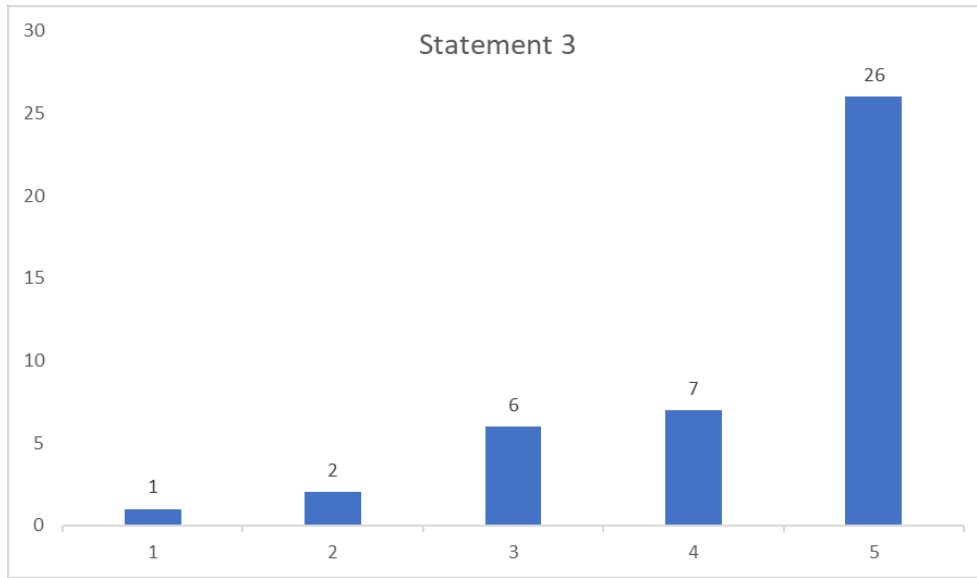
Chart 2



4.2.3 Statement 3

Statement 3 is that “Smartphones enable me to record lectures delivered by my tutors”. This statement asks the respondents about their perceptions of the smartphone screen recording feature used while attending online classes with their teacher/lecturers. The result indicates that most of the respondents (62%, n = 26) strongly agree with this smartphone feature, followed by 17% (n = 7) of the respondents who agree with the statement. Furthermore, it shows that 14% (n = 6) of the respondents chose “neutral”, 5% (n = 2) of them disagree, and one respondent (2%, n = 1) strongly disagrees with the statement. Based upon the result, most of the respondents felt the screen recording feature usability could assist their online academic needs although there are some respondents that did not feel (disagree & strongly disagree) the same experience. The results are displayed in chart 3 as follows.

Chart 3

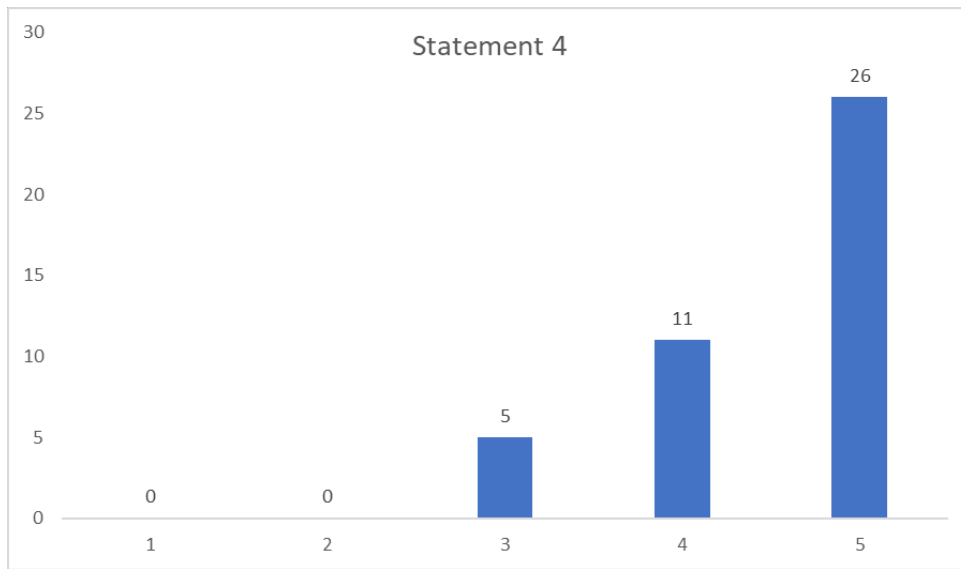


4.2.4 Statement 4

Statement four “Smartphone enables me to schedule my lecture activities with reminder” is about the smartphone feature of reminders (i.e., alarm & calendar) that might assist users, especially students in organizing their life in or off-university. Chart 4 indicates that 62% of the respondents (n = 26) strongly agree and 26% (n = 11%) agree with the statement. The rest of the respondents (or 12%, n = 5) were neutral about the closed question. In summary, the smartphone feature is majorly perceived as beneficial by the respondents as they majorly chose to strongly agree. Chart 4 shows the results as follows.



Chart 4

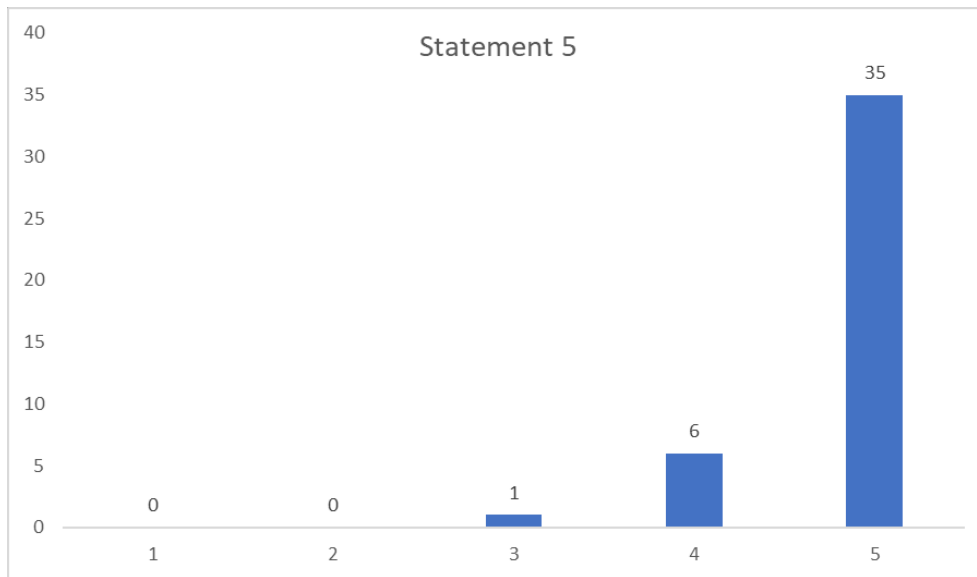


4.2.5 Statement 5

Statement five “I can easily access my email (e.g., G-mail, Yahoo, etc) using smartphones and inquire the respondents about the feeling of ease in opening the smartphone feature of e-mail in the device. The result in chart 5 shows that 83% (n = 35) of the respondents majorly strongly agree with the statement. Moreover, 14% (n = 6) of the respondents chose “agree” and 2% (n = 1) answered “neutral”. In conclusion, most of the respondents perceive convenience in e-mailing or only opening their inboxes on the smartphone. Statement 5 results are presented statistically in chart 5.



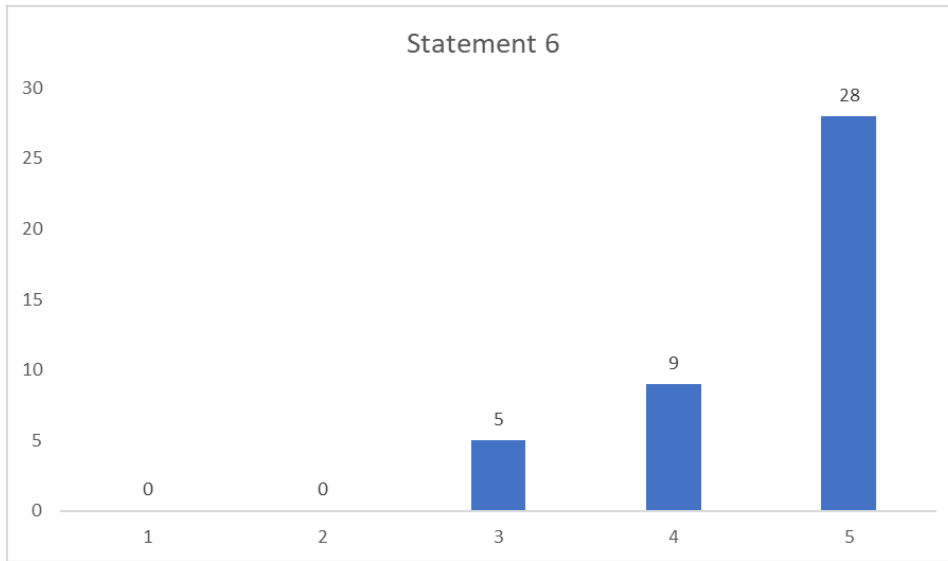
Chart 5



4.2.6 Statement 6

The respondents were presented with the statement “Smartphone helps me to store all my lecture materials”, which means to perceive the respondents' perception of smartphone usability to store campus-related contents. Based upon the result, 67% (n = 28) strongly agree with the smartphone feature, 21% (n = 9) agree, and 12% (n = 5) of the respondents are “neutral” about the device's ability. Overall, the result says that the respondents primarily perceived the usefulness of the smartphone feature as file storage for academic purposes. The statistical data are shown in chart 6.

Chart 6

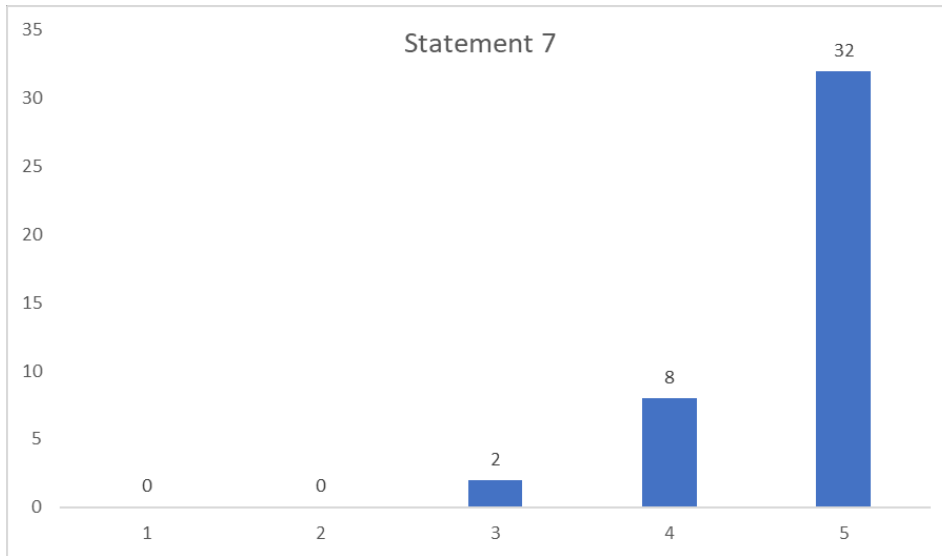


4.2.7 Statement 7

Statement seven intends to identify the respondents' perception of the smartphone feature of sharing files as the statement written: "Smartphone helps me in sharing lecture materials among colleagues". Chart 7 describes the result of item 7 as 76% (n = 32) strongly agree with the statement, 19% (n = 8) agree, and 5% (n = 2) are "neutral". In brief, the respondents' voices majorly chose "strongly agree" with this smartphone feature, which means they are relying upon the feature to support their online academic needs. The respondents' answers are displayed statistically in chart 7.

الجامعة الإسلامية
الاستاذ الدكتور

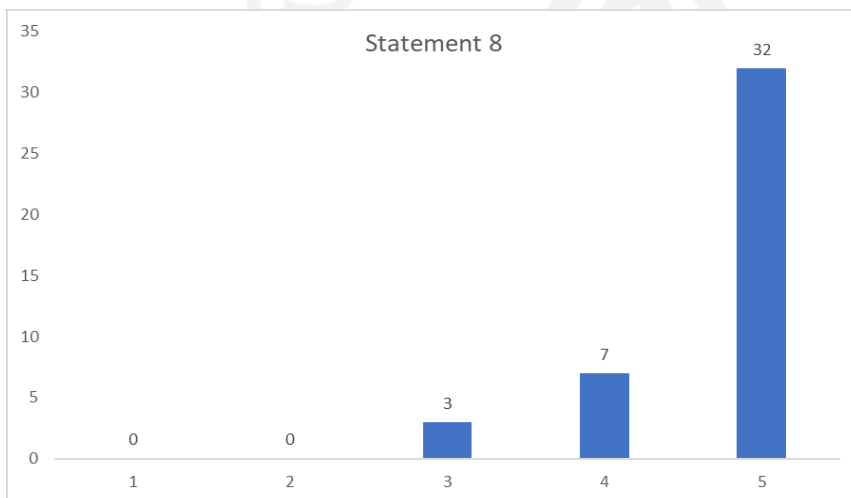
Chart 7



4.2.8 Statement 8

The last statement “Smartphones enable me to use social media platforms for class activities” shows the result as 76% (n = 32) strongly agree, 17% (n = 7) agree, and 7% (n = 3) are “neutral”. Ultimately, it can be concluded that the respondents’ voices majorly strongly agree with the smartphone feature of social media that is able to support the respondents’ online class activities. Chart 8 describes the results further.

Chart 8



4.3 Results of Quantitative Survey with Open-Ended Questions

There are two statements made into four open-ended questions since the researcher needs to attain more dynamic answers from the respondents. These questions are related to the activities that the respondents prefer to do with their smartphones and the smartphone feature of multitasking that might be experienced by the respondents to support their online class activities. Furthermore, table 4 presents the results statistically including sample answers of the respondents and the categories such as Accessing Social Media (ASM), Playing Video Games (PVG), Browsing and Opening Other Apps (B & OOA), Answering All Items (ALL); Agree (A), Disagree (D), and Neutral (N).

Table 3

The results of open-ended questions

Questions	Sample Answers	Categories	Number	Percentage
1	For accessing social media because it is not only for entertainment but also it can be used for platforms to look for related information (resp. 23)	ASM	29	69%
	Playing video games because it is my hobby (resp. 7)	PVG	3	7%
	For looking for information because it is easier and faster (resp. 16)	B & OOA	5	12%
	All of them because they have become part of my life (resp. 9)	ALL	5	12%
Total			42	100%
2	I think so because the features not only enable me to open an app but also enable me to access many features on my smartphone at once as it eases the smartphone users (resp. 32)	A	34	81%
	No, it does not, because with smartphones sometimes our intention in opening the intended apps are shifting suddenly to another app (resp. 8)	D	6	12%
	It seems so (resp. 31)	N	2	5%
Total			42	100%
I think that a smartphone is advantageous during online learning because I was able to		A	34	81%

3	make notes in a note, screenshot lectures, watch lectures video, and many more (resp. 31)			
	I prefer a laptop to a smartphone for online learning (resp. 35)	D	8	19%
	-	N	0	0%
Total			42	100%
4	Yes. it does. Smartphones allow us to multitask thus our academic performance might be improved. It happens because once we study and need some references, we could access our smartphones everywhere and anytime (resp. 24)	A	32	76%
	I do not think so because I was not used to using a smartphone during online learning (resp. 41)	D	9	21%
	It depends on the needs (resp. 19)	N	1	2%
Total			42	100%

Each question shows 100% answered as this study did not exclude any responses from the respondents. Each question is further described in the subheadings below.

4.3.1 Open-Ended Question 1

The first question of the open-ended questions is regarding the activities that the respondents prefer to do. From table 4 above, the respondents mostly prefer activity with their smartphones for accessing social media (69%, n = 29). This study categorizes the answers about accessing social media into three categories due to there are various intentions in using social media for each respondent. Therefore, it is split into accessing social media for entertainment (n = 6), for communication (n = 5), and for looking for information (n = 9); the rest of the respondents (n = 9) are excluded from those categories due to their answers which are not equivocal. To begin with, this study inserts an excerpt from respondent 39 that tells two intentions at once of accessing social media, namely, for entertainment and communication. She said that social media allows her to communicate with friends or relatives. In addition, respondent 39 felt advantageous with the

social media features as she could create a new way of entertainment by using social media YouTube to watch any streaming. Respondent 39 elaborates on this issue in her account below.

Excerpt 1

For accessing social media because it enables me to connect with my friends while I can see all of their activities on my smartphone. Moreover, I love looking for entertainment on YouTube (OQ, resp. 39, translation).

Moreover, for those who are accessing social media for looking for information, this study quoted respondent 42's excerpt, in which she stated that social media allows her to get various content on social media thus she gets recent news only with the provided platform. It shows that the smartphone feature of social media owns another function as respondent 42 told that social media could keep her updated upon recent news since social media produces a lot of content. It could be concluded that the smartphone feature provides easiness for the users in receiving information. Respondent 42 describes her account below.

Excerpt 2

For accessing social media to update recent news fast because there is various content on social media. Therefore, it enables me to stay updated with recent news (OQ, resp. 42, translation).

In the second category "Browse and Open other Apps" 12% of the respondents (n = 5) stated preferring the category as their activities on smartphones. Respondent 11 claims that smartphones assist her in filling her academic needs with the smartphone feature of the browser. It allows respondent 11 to find references such as scientific literature that are used as a fulfillment of the assignment. Respondent 11 also states that using a browser on a smartphone is able to be her study assistant during online learning. The following excerpt is respondent 11's account.

Excerpt 3

To browse because I want to find e-journals and look for related content for studying (OQ, resp. 11, translation).

In the same category, another respondent, respondent 26, says that she opens an app excluding social media, games, and browsers as her activities prefer to do. Something interesting is that respondent 26 accesses a smartphone for reading digital comics. This study summarizes that a smartphone is able to offer various entertainment including reading digital comics through the device. It shows that smartphone users are getting adjusted to the smartphones' small screens since users might prefer bigger screens on laptops, tablets, or computers for digital reading. Furthermore, respondent 26 states that due to the diversity of smartphone features, it might make smartphones to be digital entertainment for her. Here is respondent 26's account.

Excerpt 4

I prefer using my smartphone for playing video games, reading digital comics, and looking for information for my assignment because with a smartphone it will be easier to access information because of its feature internet and it can also be digital entertainment (OQ, resp. 26, translation).

The category "Answering All Items" shows the same percentage as "Browsing and Opening other Apps (12%, n = 5). Respondent 25 says that she chooses all the activities since those all are indeed smartphone features' functions. This study summarizes that social media, video games, and browsing on the internet are parts of smartphone features that most users might access all those features since they might be the best features of the smartphones. Thus, respondent 25 prefers to answer all the activities. Here is the excerpt from respondent 25's account.

Excerpt 5

All of them because those all are smartphones' functions (OQ, resp. 25, translation).

In the last category "Playing Video Games" only 7% (n = 3) decide to answer this category. This study does not find the exact reason among the respondents in choosing to play video games on their smartphones. Mostly, those who answer playing video games only tell that the activity is part of their hobbies and leisure activities without any further reason. Respondent 10 says that he

is used to playing video games for leisure activities by using his smartphone. Excerpt 6 presents respondent 10's account.

Excerpt 6

For playing video games in my leisure time and looking for information or something that I have not yet understood (OQ, resp. 10, translation).

This study concludes that a smartphone enables its users to spend their leisure time playing video games without needing bigger screen-size devices (i.e., tablet, laptop, or PC) to get the experience. Smartphones at the present are also designed with full-screen displays thus playing video games on smartphones is not a problem anymore.

4.3.2 Open-Ended Question 2

The second question asks the respondents' thoughts upon the possibility of smartphone features that might enable them in multitasking. Furthermore, this study splits the answer into three categories (i.e., agree, disagree, & neutral). The results show that the respondents majorly agree (81%, n = 31) that smartphone features enable them to multitask. Respondent 13 responded that by functioning her smartphone for online classes, she was able to access different apps at the same time. According to her, the feature of split-screen mode helps her to multitask as it provides space for multitasking and therefore, she could open two different apps simultaneously. This matter is elaborated from her accounts below.

Excerpt 7

In smartphones have been already provided split-screen mode thus which enables us to open two different apps at the same time (OQ, resp. 13, translation).

Furthermore, respondent 17 mentioned that by using smartphone features she was able to use a feature that enables her to stay watching lecture videos while doing other assignments. Therefore, it helped her to shorten her time in doing the campus assignment. The picture-in-picture feature eases her to do tasks because the feature allows her to watch lecture videos in a floating

window while opening other tasks at once. Therefore, she was able to pay attention to lecture videos while accessing other sites or apps. In addition, she was also able to open her study references on different platforms while attending online classes on Zoom. Excerpt 8 presents respondent 17's account.

Excerpt 8

Yes, it does because smartphones are able to assist us in multitasking with their various features. For example, while we are zooming, we are able to read lectures. Moreover, we can still watch lecture videos with the picture-in-picture feature (OQ, resp. 17, translation).

Meanwhile, 14% (n = 6) disagree with the question. They revealed their disagreement with multitasking by using smartphones. For example, respondent 1 points out that a smartphone is not her favored device to multitask. She prefers to use a bigger screen size device when multitasking with her assignments. A laptop is preferred by respondent 1 as her multitasking device. This study could not get the further reason, but it might be decided due to the small screen size of smartphones. Respondent 1's account is presented as follows.

Excerpt 9

No, it does not. If I want to multitask, I usually prefer a laptop (OQ, resp. 1, translation).

Finally, 5% (n = 2) of the respondents answered for the "neutral" option. This study categorizes the answer into neutral since the two respondents, (19 and 3), said that multitasking is going to run when it depends upon the situation.

4.3.3 Open-Ended Question 3

Thirdly, open-ended question 3 inquires the respondents' thoughts upon how smartphone feature multitasking helps the respondents in organizing their online classes. This study found that 81% (n = 34) agree on smartphone features that might help multitasking during online classes. Respondent 30 wrote that smartphone features offer reminders that are worthwhile for organizing

respondent 30's academic schedule during online classes. The respondent mentioned that the smartphone built-in feature's alarms are useful in reminding start-soon online classes. Furthermore, the feature reminders also allow respondent 30 to organize everything that is important in a memo. Respondent 30's account is presented as follows.

Excerpt 10

Yes, it does. I think that smartphone features enable me to organize online classes. This happens because a lot of benefits of smartphone features assist me during online classes. For example, there is a smartphone feature alarm that reminds me of upcoming meetings. Another example is using a memo to note anything that matters (OQ, resp. 30, translation).

In addition, 19% (n = 8) contradict the question. Some spilled similar reasons to the previous open-ended question as they prefer other devices such as laptops and PCs to multitask. However, respondent 37 showed a different reason that she is not a multitasking person. Here is respondent 37's account.

Excerpt 11

I disagree because I am not personally a multitasking person (OQ, resp. 37, translation).

There are no respondents that indicated responding 50-50 or "neutral" answers thus this study excludes it in the passage above. Only "agree" and "disagree" are written in this study.

4.3.4 Open-Ended Question 4

The last question asks about the respondents' thoughts upon multitasking with smartphone features that might possibly influence their academic performance. The results show that the respondents who believe that multitasking by using smartphone features could help their academic performance are about 76% (n = 32). By using split screen mode, respondent 15 felt that her academic performance improved since she could do two tasks simultaneously on the same screen. Furthermore, respondent 15 exemplifies the activities which might lead to academic improvement

such as open lectures that are sent on WhatsApp while attending online classes on teleconference apps (e.g., Zoom, Google Meet, Skype, etc.) simultaneously. The respondent reveals the activities as they allowed the respondent to read or comprehend learning references while the online classes were running. Excerpt 12 presents respondent 15's account.

Excerpt 12

Yes, it does. It happens because the split screen feature allows me to listen and comprehend lecture videos or written lectures on WhatsApp while attending online classes at the same time. By that, I can comprehend my lectures better (OQ, resp. 15, translation).

Moreover, 21% (n = 9) disagreed with the fourth open-ended question. This study caught a respondent, respondent 37, that stays consistent in standing her thought as she does not prefer multitasking upon her tasks. As this study quoted respondent 37's account in the previous subheading, respondent 37 unveiled herself as a single-tasking person who focuses upon one thing at a time. Therefore, once respondent 37 is doing her tasks, she prefers to focus upon one task to be done. Here is respondent 37's account.

Excerpt 13

I disagree because I prioritize maximal results. So, I would like to do my tasks one by one (OQ, resp. 37, translation).

The latest result reports that only 2% (n = 1) found "neutral" with open-ended question 4. Respondent 19's account is categorized as neutral since her thought "*it depends on the situation*" might be assessed as a 50-50 opinion. There is no further reason from respondent 19 about her voice.

4.4 Discussion

This quantitative survey study reformulated Darko-Adjei's (2019) instrument to answer the research question and suit the current condition as it is split into two types: eight items of statement and four items of open-ended questions. The instrument mediated this study to seek the

real condition of university students in making use of smartphone features as online learning devices whether the students are assisted in the learning process or vice versa. The issue comes up due to learning mode that turns suddenly into online learning forcing university students to function their smartphone features to bridge the learning process. Therefore, it raises an issue about the equivocal benefit of smartphone features usage since the learning shift isolates students from learning directly with teachers. By receiving responses through the eight statements, the survey shows that the majority of the students strongly agree and this study concludes that students perceived the usefulness of making use of smartphone features, in other words, smartphone features have clear benefits in assisting university students in online learning. The first statement, upon smartphones feature online information that allows students to have quick access to news, aligns with a previous study that reported students were easily receiving news through smartphone features of social media and news portals (Masadeh, 2021). In addition, after revisiting smartphone use's relationship with students' academic performance, Lin, Liu, Fan, Tuunainen, and Deng (2021) also found that students who access online news through a smartphone positively affect their academic performance. The study explained that students were able to expand their knowledge by functioning smartphones feature social media and news portals as platforms of self-paced learning. Moreover, this study revealed the second statement's results as students were assisted by smartphone feature screenshots during online learning. It is assumed that the feature might be used to catch the related content in case students have to capture them quickly in a short moment. The notion might relate to Sokhulu (2021) as he said that students capture their lectures to be saved later and notify lecturers when students have been finishing the task. By using the screenshot feature, important points in lectures could be captured for a later date when students might not have access to their own lectures. Furthermore, this study concluded that students

believed the screen recorder feature (third statement) and the reminder feature (fourth statement) could ease students' synchronous learning. These two statement results align with a previous study (Masadeh, 2021) in which the screen recorder feature enables students to record the smartphone screen including sound and moving pictures (video) which is advantageous to store lectures in a video format. In addition, reminders on a smartphone allow students to organize their online learning schedule as students would be reminded through features such as alarms and to-do list apps. This study identified the fifth and seventh statements have similar results to Masadeh (2021) and Sokhulu (2021) as students strongly agreed upon smartphones allowing emailing on smaller devices (statement no. 5) and strongly agreed upon smartphones allowing sharing lectures among classmates (statement no. 7). This study described those statements results that students did not meet any barriers to email their academic staffs and classmates by using a smaller device, namely smartphone, as well as the device, ease students to send and receive lectures material to and from classmates as they were isolated during the Covid-19 pandemic online learning. Henceforth, in the sixth statement, this study found that smartphone allows them to store all their lectures. It is supporting Anshari et al's (2017) study as students did not worry anymore when they lose their homework because students had already saved or backed up the file copy on a smartphone. In an online learning setting, teachers often share their lessons in a file format thus students are forced to use smartphone storage to open the file. Although smartphone storage has its own limit storage, numerous cloud-storage smartphone-based apps are available. Thus, students could add their smartphone storage by installing and subscribing to those apps (most of them provide premium offers to get an extra storage number). Additionally, this study, in the eighth statement about the ease of opening social media on a smartphone for academic purposes, reported that students found usefulness toward smartphone features which assisted them in accessing social media for online

classroom needs easily. This report supports Sobaih, Hasanein, and Elnasr's (2020) results as they were arguing that smartphones allow students to access social media anywhere, especially during the learning process for academic intention. Moreover, Ratan, et al (2022) stated that using social media in online learning facilitates active learning in asynchronous activities through a feature video commenting in which students and instructors would perceive socially interacting by asking-answering for clarity toward a lesson topic. Thus, there would be no unrecognized social presence during online learning.

Additionally, this study concludes the result of open-ended questions that students prefer social media as a preference of smartphone use as well as believe that smartphones allow them to multitask with offered features. The first open-ended question reveals that students favor social media as their smartphone use preferences during online learning. This is in accordance with Annamalai and Kumar's (2020) and Ulla and Perales's (2021) results as students prefer social media over other activities on their smartphones since such a feature allows them to keep in touch with classmates and lecturers during online learning. Moreover, Ulla and Perales (2021) revealed that social media is not only considered to allow students communicating to others but also could be an academic platform for online learning through its offered features such as posting, commenting, and liking, as it aligns with Ratan et al (2022). In addition, in the second question, this study reported that the smartphone features could possibly allow students to multitask on a smartphone. Several students mentioned some features like split-screen and picture-in-picture mode that provide them with a time-saving device through its dual task ability. The result supports Anshari et al (2017) as they found in their study that students experienced multitasking on a smartphone, in which while they were typing or recording lectures, students browsed lecture references on another tab and app. It might seem to have similar abilities to a PC and a laptop, yet

a smartphone does its duties to substitute a PC and a laptop by offering its mobility to students, becoming a value-added feature of a smartphone from other devices. Hence, such a feature allows students to multitask wherever and whenever they go. In addition, the third question result is the same as Annamalai and Kumar's (2020) reports as students were easier to manage their online learning while multitasking on their smartphones such as noting during online learning makes their time more efficient. Interestingly, this study found in the last open-ended question that multitasking using smartphone features is perceived to be advantageous to promote learning improvement since some features such as split-screen and picture-in-picture modes ease students in doing dual tasks on one screen. The results are consistent with Bellur, Nowak, and Hull (2015) who said that off-class multitasking including in asynchronous and synchronous settings could promote learning improvement since students get more increased in spending their study time compared to in-class multitasking in which students would be more get distracted. However, it is conversely reported by Uzun and Kilis (2018) that technology multitasking negatively influences academic performance because students might access off-task during practice. Similarly, Tossell, Kortum, Shepard, Rahmati, and Zhong (2014) found that smartphones multitasking distracted students from doing their tasks and it was not beneficial in improving academic performance.

Finally, this study is taking everything into account, that making use of smartphone features for online learning is perceived as advantageous by university students since various features offered in a smartphone could bridge students with lecturers in a separate condition during the Covid-19 pandemic. Additionally, features in a smartphone are not only felt helpful for online learning but also could fill students' spare time during the stay-at-home mandate through off-academic activities such as accessing social media, playing video games, and reading comics.

CHAPTER V

CONCLUSION AND RECOMMENDATION

This chapter concludes the scientific benefits of the study. Furthermore, suggestions for future research are written in the recommendation.

5.1 Conclusion

This study shows that the actual practice of using smartphone features in online learning positively assists students to access their academic needs. Students are encouraged to attend their online learning because smartphone features allow students to stay synchronized with their online classes anytime and anywhere. In addition, students found perceived usefulness in multitasking by making use of a smartphone as they are able to do a dual task on one screen. In other words, smartphone features have great impacts upon university students during online learning besides some reports reported minor influences upon academic performance. Therefore, this study suggests that the use of a smartphone in online learning should be accompanied by a precise decision.

5.2 Recommendation

Continuing novice in the conclusion, students feel engaged during online learning while using their smartphone features to facilitate their academic needs. The reports were found in a small scope as the researcher conducted his research on English department students in an Islamic private university in Yogyakarta. The present study was conducted in a single institution thus a broader study is needed to generalize how university students make use of smartphone features in online learning. In addition, this study suggests for future research to study specific smartphone features since there are various features available in a smartphone as well as each of them has its own capabilities to promote university students in online learning.

REFERENCES

- Aduba, D. E., & Mayowa-Adebara, O. (2022). Online Platforms Used for Teaching and Learning during the COVID-19 Era: The Case of LIS Students in Delta State University, Abraka. *International Information and Library Review*, 54(1), 17–31. <https://doi.org/10.1080/10572317.2020.1869903>
- Albó, L., Hernández-Leo, D., & Moreno Oliver, V. (2019). Smartphones or laptops in the collaborative classroom? A study of video-based learning in higher education. *Behaviour and Information Technology*, 38(6), 637–649. <https://doi.org/10.1080/0144929X.2018.1549596>
- Annamalai, N., & Kumar, J. A. (2020). Understanding Smartphone use Behavior among Distance Education Students in Completing their Coursework in English: A Mixed-Method Approach. *Reference Librarian*, 61(3–4), 199–215. <https://doi.org/10.1080/02763877.2020.1815630>
- Anshari, M., Almunawar, M. N., Shahrill, M., Wicaksono, D. K., & Huda, M. (2017). Smartphones usage in the classrooms: Learning aid or interference? *Education and Information Technologies*, 22(6), 3063–3079. <https://doi.org/10.1007/s10639-017-9572-7>
- Anwar, D. (2020). *Offline: Finding Yourself in The Age of Distractions*. PT Gramedia Pustaka Utama.
- Ariel, Y., & Elishar-Malka, V. (2019). Learning in the smartphone era: Viewpoints and perceptions on both sides of the lectern. *Education and Information Technologies*, 24(4), 2329–2340. <https://doi.org/10.1007/s10639-019-09871-w>
- Bellur, S., Nowak, k. L., & Hull, K. S. (2015). Make it our time: In class multitaskers have lower academic performance. *Computers in Human Behavior*, 53. doi.org/10.1016/j.chb.2015.06.027
- Bomhold, C. R. (2013). Educational use of smart phone technology: A survey of mobile phone application use by undergraduate university students. *Program: Electronic Library and Information Systems*, 47(4), 424–436. <https://doi.org/10.1108/PROG-01-2013-0003>
- Creswell, J. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (4th ed.). MA: Pearson.
- Dai, Y., & Wu, Z. (2021). Mobile-assisted pronunciation learning with feedback from peers and/or automatic speech recognition: a mixed-methods study. *Computer Assisted Language Learning*, 0(0), 1–24. <https://doi.org/10.1080/09588221.2021.1952272>
- Darko-Adjei, N. (2019). The use and effect of smartphones in students' learning activities: Evidence from the University of Ghana, Legon. *Library Philosophy and Practice*, 2019(April).
- Demouy, V., Jones, A., Kan, Q., Kukulska-hulme, A., & Eardley, A. (2015). Why and how do distance learners use mobile devices. *The EUROCALL Review*, 23(2), 10–24. <https://doi.org/10.4995/eurocall.2016.5663>
- Elsherbiny, M. M. K., & Al Maamari, R. H. (2020). Game-based learning through mobile phone apps: effectively enhancing learning for social work students. *Social Work Education*,

- 40(3), 315–332. <https://doi.org/10.1080/02615479.2020.1737665>
- Han, I., & Shin, W. S. (2016). The use of a mobile learning management system and academic achievement of online students. *Computers and Education*, 102, 79–89. <https://doi.org/10.1016/j.compedu.2016.07.003>
- Hou, Y. J. (2018). Integration of kahoot into EFL classroom. *Communications in Computer and Information Science*, 852(2016), 31–37. https://doi.org/10.1007/978-3-319-92285-0_5
- Jogezai, N. A., Baloch, F. A., Jaffar, M., Shah, T., Khilji, G. K., & Bashir, S. (2021). Teachers' attitudes towards social media (SM) use in online learning amid the COVID-19 pandemic: the effects of SM use by teachers and religious scholars during physical distancing. *Heliyon*, 7(4), e06781. <https://doi.org/10.1016/j.heliyon.2021.e06781>
- Katsumata, S., Ichikohji, T., Nakano, S., Yamaguchi, S., & Ikuine, F. (2022). Changes in the use of mobile devices during the crisis: Immediate response to the COVID-19 pandemic. *Computers in Human Behavior Reports*, 5, 100168. <https://doi.org/10.1016/j.chbr.2022.100168>
- Kim, Y., Jeong, S., Ji, Y., Lee, S., Kwon, K. H., & Jeon, J. W. (2015). Smartphone response system using twitter to enable effective interaction and improve engagement in large classrooms. *IEEE Transactions on Education*, 58(2), 98–103. <https://doi.org/10.1109/TE.2014.2329651>
- Ko, M. H. (2019). Students' reactions to using smartphones and social media for vocabulary feedback. *Computer Assisted Language Learning*, 32(8), 920–944. <https://doi.org/10.1080/09588221.2018.1541360>
- Koh, J. H. L., & Kan, R. Y. P. (2021). Students' use of learning management systems and desired e-learning experiences: are they ready for next generation digital learning environments? *Higher Education Research and Development*, 40(5), 995–1010. <https://doi.org/10.1080/07294360.2020.1799949>
- Kukulska-Hulme, A. (2007). Mobile usability in educational contexts: What have we learnt? *International Review of Research in Open and Distance Learning*, 8(2). <https://doi.org/10.19173/irrodl.v8i2.356>
- Lin, Y., Liu, Y., Fan, W., Tuunainen, V. K., & Deng, S. (2021). Revisiting the relationship between smartphone use and academic performance: A large-scale study. *Computers in Human Behavior*, 122. [10.1016/j.chb.2021.106835](https://doi.org/10.1016/j.chb.2021.106835)
- Masadeh, T. S. Y. (2021). Smartphone Use in Learning As Perceived By University Undergraduates: Benefits and Barriers. *International Journal of Research - GRANTHAALAYAH*, 9(3), 56–65. <https://doi.org/10.29121/granthaalayah.v9.i3.2021.3764>
- Mohammadi, M., Sarvestani, M. S., & Nouroozi, S. (2020). Mobile Phone Use in Education and Learning by Faculty Members of Technical-Engineering Groups: Concurrent Mixed Methods Design. *Frontiers in Education*, 5(February), 1–9. <https://doi.org/10.3389/feduc.2020.00016>
- Moore, J. L., Dickson-Deane, C., & Galyen, K. (2011). E-Learning, online learning, and distance learning environments: Are they the same? *Internet and Higher Education*, 14(2), 129–135. <https://doi.org/10.1016/j.iheduc.2010.10.001>

- Mulyono, H., Suryoputro, G., & Jamil, S. R. (2021). The application of WhatsApp to support online learning during the COVID-19 pandemic in Indonesia. *Heliyon*, 7(8), e07853. <https://doi.org/10.1016/j.heliyon.2021.e07853>
- Şad, S. N., Özer, N., Yakar, Ü., & Öztürk, F. (2020). Mobile or hostile? Using smartphones in learning English as a foreign language 1. *Computer Assisted Language Learning*, 0(0), 1–27. <https://doi.org/10.1080/09588221.2020.1770292>
- Ratan, R., Ucha, C., Lei, Y., Lim, C., Triwibowo, W., Yelon, S., Sheahan, A., Lamb, B., Deni, B., & Chen, V. H. H. (2022). How do social presence and active learning in synchronous and asynchronous online classes relate to students' perceived course gains? *Computer & Education*. 10.1016/j.compedu.2022.104621
- Sapci, O., Elhai, J. D., Amialchuk, A., & Montag, C. (2021). The relationship between smartphone use and students' academic performance. *Learning and Individual Differences*, 89. doi.org/10.1016/j.lindif.2021.102035
- Singh, V., & Thurman, A. (2019). How Many Ways Can We Define Online Learning? A Systematic Literature Review of Definitions of Online Learning (1988-2018). *American Journal of Distance Education*, 33(4), 289–306. <https://doi.org/10.1080/08923647.2019.1663082>
- Siebert, M. (2019). The Silent Classroom: The Impact of Smartphones and a Social Studies Teacher's Response. *The Social Studies*, 110(3), 122–130. <https://doi.org/10.1080/00377996.2019.1580666>
- Sobaih, A. E., Hasanein, A. M., & Elnasr, A. A. (2020). Responses to COVID-19 in Higher Education: Social Media Usage for Sustaining Formal Academic Communication in Developing Countries. *Sustainability*. 10.3390/su12166520
- Sokhulu, L. H. (2021). Students' experiences of using digital technologies to address their personal research needs during the COVID-19 lockdown. *African Identities*, 19(4), 436–452. <https://doi.org/10.1080/14725843.2020.1801384>
- Tossell, C. C., Kortum, P., Shepard, C., Rahmati, A., & Zhong, L. (2014). You can lead a horse to water but you cannot make him learn: Smartphone use in higher education. *British Journal of Educational Technology*, 46(4), 713-724. <https://doi.org/10.1111/bjet.12176>
- Ulla, M. B., & Perales, W. F. (2021). Facebook as an integrated online learning support application during the COVID19 pandemic: Thai university students' experiences and perspectives. *Heliyon*, 7(11), e08317. <https://doi.org/10.1016/j.heliyon.2021.e08317>
- Uzun, A. M., & Kilis, S. (2018). Does persistent involvement in media and technology lead to lower academic performance? Evaluating media and technology use in relation to multitasking, self-regulation and academic performance. *Computers in Human Behavior*, 90. doi.org/10.1016/j.chb.2018.08.045

APPENDICES

Appendix 1

Approval Letter for Data Collection



FAKULTAS
PSIKOLOGI &
ILMU SOSIAL BUDAYA

Gedung Dr. Soekman Wijesandjjo
Kampus Terpadu Universitas Islam Indonesia
Jl. Kalitirang km 14,5 Yogyakarta 55584
T. (0274) 898444 ext. 2106, 2114
F. (0274) 898444 ext. 2106
E. psib@uii.ac.id
W. psibuii.ac.id

Tanggal : 12 Juli 2022
Nomor : 1325/Dek/70/DURT/VII/2022
Hal : Permohonan Ijin Pengambilan Data Skripsi

Kepada :
Yth. Dekan Fakultas Psikologi dan Ilmu Sosial Budaya
Universitas Islam Indonesia
Yogyakarta

Assalamualaikum Wr. Wb

Dalam rangka mempersiapkan mahasiswa untuk menempuh ujian, bagi setiap mahasiswa diwajibkan membuat skripsi/tugas akhir.

Sehubungan dengan hal tersebut diperlukan data, baik dari Instansi Pemerintah maupun Swasta. Selanjutnya kami mohon ijin penelitian/pengambilan data mahasiswa Fakultas Psikologi dan Ilmu Sosial Budaya Universitas Islam Indonesia tersebut dibawah ini :

Nama Mahasiswa : Abdan Islah Trisnadi
Nomor Induk Mahasiswa : 18322094
Program Studi : Pendidikan Bahasa Inggris
Pembimbing : Nizamuddin Sadiq, S.Pd., M.Hum., Ph.D.
Judul Skripsi :

**"Investigating University Students' Use of Smartphone Features in Online Learning:
A Survey Study"**

Demikian permohonan kami, atas perhatian dan bantuan Bapak/Ibu/Saudara/i kami ucapkan terimakasih.

Wassalamualaikum Wr. Wb

Dosen Pembimbing Skripsi

Nizamuddin Sadiq, S.Pd., M.Hum., Ph.D.

Appendix 2

The E-questionnaire on Google Forms



The screenshot shows a Google Form interface. At the top, there is a navigation bar with 'Collecting Data', a folder icon, a star icon, and a 'Send' button. Below this, there are tabs for 'Questions', 'Responses' (with a count of 44), and 'Settings'. The main content area of the form is titled 'Investigating University Students' Use of Smartphone Features in Online Learning: A Survey Study'. Below the title, it says 'Assalamualaikum Wr. Wb.' followed by a paragraph of Indonesian text. The text introduces the researcher, Abdan Islah Trisnadi, and describes the research project. It mentions that the research is quantitative and uses a survey method with a questionnaire. The researcher is seeking respondents from PBI 2019 students who have experience using smartphones during online learning. The text expresses hope that the respondents will provide valuable information and that their privacy will be protected. At the end of the text, there is a thank you message and contact information for the researcher, including an email address and a WhatsApp number.

Investigating University Students' Use of Smartphone Features in Online Learning: A Survey Study

Assalamualaikum Wr. Wb.

Perkenalkan saya Abdan Islah Trisnadi, mahasiswa Pendidikan Bahasa Inggris angkatan 2018 Universitas Islam Indonesia. Saat ini saya sedang melakukan penelitian yang berjudul "Investigating University Students' Use of Smartphone Features in Online Learning: A Survey Study". Penelitian saya merupakan penelitian kuantitatif dengan metode pendekatan survei dengan instrumen penelitian berupa kuesioner. Selain itu, penelitian saya membutuhkan responden dari mahasiswa PBI 2019 dengan kriteria MEMILIKI PENGALAMAN MENGGUNAKAN SMARTPHONE UNTUK MENJEMBATANI KEGIATAN PERKULIAHAN SELAMA PEMBELAJARAN DARING. Oleh karena itu, saya mengharapkan kesediaan Anda untuk menjadi responden penelitian saya sebagaimana jawaban yang bakal Anda berikan merupakan informasi yang sangat berharga dan hanya untuk tujuan penelitian. Kerahasiaan informasi yang Anda bagikan menjadi tanggung jawab dari penelitian ini.

Terima kasih atas kesediaan dan partisipasi Anda, semoga Allah SWT meridai kita semua. Jika Anda memiliki pertanyaan silakan kontak saya secara personal melalui alamat surel 18322094@students.uii.ac.id atau nomor WhatsApp 08995661381.

