

**A SURVEY ON THE USE OF GOOGLE CLASSROOM IN ENGLISH  
LANGUAGE EDUCATION DEPARTMENT OF ISLAMIC UNIVERSITY  
OF INDONESIA**

**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**



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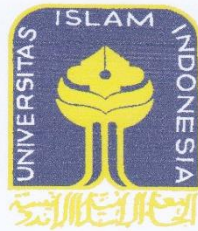
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**APPROVAL SHEET**

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**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 citations in the quotations and references, as a scientific paper should.

Yogyakarta, 7 September 2018



The writer,

*Annita Muslimah*  
**Annita Muslimah**

14322047

## **MOTTO**

- Where there is a will, there is a way.
- Do your best at any moment that you have.
- Intelligence is not the determinant of success, but hard work is the real determinant of your success.
- Stop underestimating yourself.
- *Man Jadda Wa Jadda*

## **DEDICATION**

Gratefully and thankfully, I dedicate this thesis to:

1. The Dean of Faculty of Psychology and Socio-Cultural Sciences, Islamic University of Indonesia, Dr. H. Fuad Nashori, S.Psi., M.Si., M.Ag., Psikolog.
2. The Head of English Language Education Department, Irma Windy Astuti, S.S., M. Hum.
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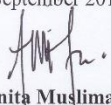
Alhamdulillahirobbil'alamin. All good praises belong to Allah SWT, the Almighty who guides and gives the researcher strength to finish this thesis as a partial fulfilment of requirements to obtain the *Sarjana Pendidikan* degree in English Language Education Department. The researcher realizes that the completion of this thesis could not be separated from the supports of many people. Therefore, on this occasion, the researcher would like to thank for guidance, supervisions, advices and any other supports given. My sincere gratitude goes to my thesis supervisor, Erni Dewi Riyanti, S.S, M.Hum, who 'magically' made all my academic wishes real (even the most impossible one) and who made me eager to push my own limit. A great appreciation will also go to all of my inspiring lecturers at English Language Education Department, Nizamudin Sadiq, S.Pd., M.Hum., Puji Rahayu, S.Pd., MLST., Astri Hapsari, S.S., M.TESOL., Rizki Farani, S.Pd., M.Pd., Ista Maharsi, S.S, M.Hum., Intan Pradita, S.S., M.Hum., Adam Anshori, S.S., M.A., who had broadened my horizon through meaningful learning.

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Last but not least, the researcher believes that this thesis is still far from perfect. Consequently, improvements are needed. Therefore, suggestions and recommendations are compulsory for further improvements. Finally, the researcher expects this thesis can be beneficial for readers.

Yogyakarta, 7 September 2018

  
Annita Muslimah  
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**ABSTRACT**

Nowadays, there are a lot of online learning platforms. New technologies are being developed to make learning process easier. One of the examples of online learning platform is Google Classroom. The purpose of this research is to identify student's responses on the use of Google Classroom in English Language Education Department, Islamic University of Indonesia. The population of subject research were 190 students in English Language Education Department batch 2014, 2015, 2016, and 2017. The method of this study is quantitative research and adapted Shaharane et.al (2016) questionnaire as the instrument to collect the data. The questionnaire contained 23 items. The data was analyzed by using frequency and means. The mean score shows  $\bar{X} = 3,82$ . The result indicated that students feel Google Classroom is useful and they satisfied with Google Classroom as an online learning tool.

*Keywords:* Google Classroom, Online Learning, Learning Media, English Language Education Department



## **CHAPTER I**

### **INTRODUCTION**

In chapter I, the researcher presents several parts. They are the background of the study, the identification of the problems, the limitation of the problem, formulation of the problem, the objectives of the study, and the significance of the study.

#### **1.1 Background**

Nowadays, integrating technology or ICT can make students control their learnings and also more engaged in class. ICT has important role in learning. Many people believe that ICT will make learning process more fun and interesting, but learning activities with technology is one of new challenges in higher education because many teachers should struggle to integrate it for several reasons. For instance, they do not have time to implement it, they do not have enough experience with technology, or they have no idea on using technology in classroom. Perez (2015) also stated that it is because they are not satisfied with the effectiveness of digital tools and have challenges to implement it. According to Cox (2009) implementing classroom technology in school is needed because it can help students to prepare for the future and as we are in the digital era which makes us should know how to use it properly. Based on Bill and Melinda Gates Foundation, 93% of teachers already use digital tools in classroom which means there are still teachers who do not use digital tools. Thus, we get the conclusion that technology is useful for learning process.

There are a lot of online social learning environment and educational tools which are accessible for both students and teachers, such as, Google Docs, Google Scholar, and Google+. Google launched an e-learning tool named Google Classroom. Google Classroom is a blended learning platform with interesting and simple features for schools. Only institution's database can invite students to classrooms. Google classroom can help to manage paperless system. According to Perez (2015) through Google Classroom, assignment is created and Gmail is used to provide classroom communication which makes teachers easier to announce and ask questions to students in classes. However, Pappas (2015) asserts that not all learning courses are suitable using Google Classroom. It has difficult account management, limited integration options, no automated updates, difficult learner sharing, editing problems, and many more.

Online learning can help students in many ways, especially when they have social anxiety; it can be a relief because they can freely ask and comment without feeling shy with other students. Technology really affects students in learning. It can support changes which is very fundamental. The implementation of technology is really needed, especially to improve students' performance. With the implementation of technology, students' performance is expected to be more efficient and effective. Thus, their performance will be maximum. Unfortunately, in the implementation of technology, there are many obstacles. The obstacles that always appear are related to effectivity on the use of technology.

Islamic University of Indonesia, already uses e-learning, especially in English Language Education Department (PBI). It has been introduced at the

beginning of the semester as excellent and unique features, especially in the use of Google Classroom. Students at the English Language Education Department were taken as participants since most classes already use Google Classroom in learning process. Based on an informal interview with some students of English Language Education Department, some of them stated that online learning affected their performance. When students have online task submission with certain deadline, they will do the task maximally and they also feel challenged. Therefore, the researcher was interested to identify student's responses within an online learning environment, especially on the use of Google Classroom. The results of this research indicated that Google Classroom is useful and help students' performance and the majority of the students felt satisfied with the Google Classroom's tool introduced in the class.

Based on the explanation above, the researcher would like to examine about the use of Google Classroom entitled, "A survey on the use of Google Classroom in English Language Education Department of Islamic University of Indonesia"

## **1.2 Identification of the Problem**

The researcher conducts the research at English Language Education Department, Islamic University of Indonesia where the focus of the research is student's responses on the use of Google Classroom. There are several reasons for bringing up this issue. First, students may lack confident with their ability; therefore, they could not achieve their task maximally. Secondly, there are students that feel shy to ask or comment to lecturer about the lesson or their difficulties. Third, the researcher inspired by the reseach that has been done by Reza Rossyta

student of English Language Education Department batch 2013. Reza's research is about the challenges of using Google Classroom and the researcher wants to identify Google Classroom to another level which is students' responses on the use of Google Classroom.

### **1.3 Limitation of The Problem**

The limitation of the problem is focused on how students' responses concerning on the use of Google Classroom in English Language Education Department, Islamic University of Indonesia. In this research, the researcher used questionnaire from Shaharane et.al (2016). The researcher decided to use questionnaire from Shaharane et.al (2016) and it used reference from internet self-efficacy scale by Eastin & LaRose to develop the questionnaire. The questionnaire is reliable with value above 0.90 and it also examines about Google Classroom. Therefore, this questionnaire is suitable with this research.

### **1.4 Formulation of the Problem**

Based on the identification and limitation of the problem, the problem of this research can be formulated as "what are students' responses on the use of Google Classroom in English Language Education Department, Islamic University of Indonesia?"

### **1.5 Objectives of the Study**

This study aimed to identify student's responses on the use of Google Classroom in English Language Education Department, Islamic University of Indonesia.

## **1.6 Significance of the study**

The results of this research aim to give contribution to other researchers, English Language Education Department, students of English Language Education Department, and the researcher herself, as followed.

### **1. Other researchers**

I hope other researcher can take benefit or provide information for further research regarding student self-efficacy on the use of Google Classroom in learning process.

### **2. English Language Education Department**

The researcher hopes that this study can be useful for the English Language Department, especially in choosing suitable technology for e-learning.

### **3. Students of English Language Education Department**

I hope this research can help the students to express their feelings by far while studying using Google Classroom as a learning tool.

### **4. The researcher herself**

Hope the researcher can take benefits from this research and also can choose suitable tool as e-learning for teaching English in the future.

## **CHAPTER II**

### **LITERATURE REVIEW**

This chapter is divided into several parts. First is the review of theoretical studies; it contains quotations and definitions related to title of the research. Second is the review of previous studies; it describes related studies conducted in the past. Third is the theoretical framework; it shows summary of the theory used.

#### **2.1 E-learning in Educational Perspective**

##### **2.1.1 The definition of E-learning**

E-learning is being introduced in the beginning of third millennium. E-learning make user can access course material everywhere via internet. Using e-learning can encourage and improve learner's interaction in the class. Based on Agarwal & Pandey (2012), e-learning focuses on the use of technology in learning and education. E-learning refers to the use of information and communication technology in learning process which consists of electronic media. According to Guri-Rosenblit (2005) "E-learning is the use of electronic media for a variety of learning purposes that range from add-on functions in conventional classrooms to full substitution for the face-to-face meetings by online encounters". Stockley (1996-2017) stated, e-learning implicates the use of electronic device (e.g. computer or mobile phone) in some ways to provide educational training or learning purpose. Sangrà et.al (2012) said, e-learning can be defined as natural evolution of distance learning which utilizes newest tool in technological context for arrangement in education.

From those definitions, we can conclude that e-learning is learning which utilizes electronic technologies to access educational curriculum outside traditional classroom and it refers to learning that delivered online. E-learning makes learning process easier, such as, sharing material or file, submit tasks, and do quizzes. E-learning also has been applied in many institutions (e.g. school and university). Through e-learning, both teacher and students can easily communicate. Also, teacher can give feedback on the assignment via online class platform.

### **2.1.2 E-learning delivery method**

In our context nowadays, e-learning is basically divided into two types, synchronous and asynchronous. These two types have their own pros and cons. Appropriate technique for students depends on how they absorb information. Based on Arisandhy (2010), synchronous is online conversation and video conference, while asynchronous is learning that can be done even both teacher and student are offline. Shahabadia & Uplane (2015) said that synchronous is e-learning that usually scheduled in a real-time and the learning experiences are also live. Whereas asynchronous is e-learning that utilizes Computer Mediation Communication (CMC) to achieve “anytime and everywhere” learning through online discussion. It is similar to synchronous e-learning which focuses on learner using online learning source to facilitate many kinds of information without thinking about time and place.

The main benefit of synchronous e-learning is to enable students in avoiding feeling insulated in communicating with others during learning process, but not flexible about time. Students should put aside their time to attend the online session

live and real-time. This type of e-learning is not suitable for busy people. While asynchronous e-learning makes students able to follow the curriculum with their own desire without worrying about schedule. This type of e-learning is appropriate for students who like to arrange schedule of learning by themselves and can choose where and when they can continue their learning. It makes students feel insulated because there is no live and interactive educational environment.

## **2.2 Google Classroom**

### **2.2.1 The definition of Google Classroom**

Google Classroom is a tool which facilitates students and teacher collaboration; also teacher can create and distribute assignments for students in an online classroom for free (Beal, 2017). It makes teachers simply build groups to share assignments and announcements. Google Classroom can be a tool that makes learners become active participants. Nagele (2017) said, teachers can create active lessons which are student-centered, collaborative, and unforgettable just through Google Classroom, because it provides easy-to-use learning features with students of all categories able to cooperate. Google Classroom is helpful to all of learner categories and including adult learners. It also has some benefits such as paperless, can be accessed anywhere and everywhere as long as there is internet connection and from any devices, to communicate between teachers and students, to give feedback to students, and personalized learning. It has a learning feature that makes teachers create and handle assignments actively and also provide feedback to students. Google Classroom makes it easier for teachers to handle students work. It is really beneficial for both teachers and students, because it is easy and simple to use.



### **2.2.2 How it works**

Google Classroom may still be unfamiliar for some people. Therefore, here is a guide line how to use Google Classroom properly for better understanding based on (Google, 2018). First, login using *classroom.google.com* and log in using Google Apps for Education account with institution e-mail address. To create the very first class, click on the “+” button next to the e-mail address. “Create class” will appear and then press on it. After that, add a class name. Teacher can add the details about the class, such as, description and instructions for students in the “about” tab, and also Google Drive folder for classroom materials and can attach outline course and lesson plan. Finally, the class is ready and students can freely join if they have institutional Google accounts and they should find class code in the “stream” tab.

### **2.2.3 Features of Google Classroom**

Lots of activities we can do with Google Classroom when the class is operated. First, one can create announcement. Teacher can give announcements about the update of the class in this section. They can attach files and class materials as well. Secondly, create assignment. This is the most substantial feature in Google Classroom. Teacher can upload assignments for student within due time to submit. Student also can download materials that have been uploaded by teacher to finish their task. Third, create question. In this section, student can create question to be discussed with teacher or other students if allowed by teacher. Fourth, re-use post. Important post can be use by teacher in this section, such as, announcement, assignment, and question.

#### **2.2.4 The benefits and limitations**

Google Classroom has copious facilities which are beneficial for its users. A few of them are user friendly, cost free, cell phone friendly, and time saving. Using Google Classroom is really easy. Based on Janzen (2014), "Google Classroom's design purposefully simplifies the instructional interface and options used for delivering and tracking assignments; communication with the entire course or individuals is also simplified through announcements, email, and push notifications". Using Google Classroom does not need any cost. It is free for anyone. Although users have institutional Google Account, they still can use it for free. Anyone can use Google classroom on any mobile device as long as there is internet connection, because it designs to be fast respond. Janzen (2014) also states that "mobile access to learning materials that are attractive and easy to interact with is critical in today's web connected learning environments". By using Google Classroom both teacher and student can save their time. According to Iftakhar (2016), it integrates other Google apps, like, Docs, Slides, Drive and Spreadsheets. Nevertheless, the whole process of administering assignments, grading, formative assessment, and feedback is simplified and streamlined.

In spite of various benefits, Google Classroom also has some limitations. Some of them as mentioned by Pappas (2015) are limited integration option, too googlish, no automated updates, difficult learner sharing and editing problems. It is difficult for teacher to manage teaching materials and to set deadline for assignments because Google Classroom is not synchronized with Google Calendar or any other calendar. Some of Google Classrooms' buttons are only familiar for

Google users. It can make new user feeling confused or needing more time to deal with it. That is why Pappas define Google Classroom as too “googlish”. There is no auto-update feature in Google Classroom; it makes learners miss an important announcement because they should refresh it regularly. Also, students can not share their documents to others without permission from teacher. Learners can only edit assignment after they create and distribute to Google Classroom. They can keep and delete any part of the assignments.

Inspite of some drawbacks, we can conclude that Google Classroom is a good thing for students and teachers because it is easy to use, efficient, effective, better for the environment, and enable collaboration between teacher and student becomes easier. With Google Classroom, learning process can be effective and efficient because students and teachers can access Google Classroom anytime and anywhere in electronic devices with internet network.

## **2.3 Learning media**

### **2.3.1 The Definition of Learning Media**

Media refers to material that presented with words and pictures so that students can better understand the material if it is presented with words and also pictures rather than with words. According to Sariffudin (2013), in general, learning media means teaching and learning tool which can be used to stimulate skills of learners, thoughts and feeling, therefore to facilitate the learning process. Based on Mateer et.al (2018), media can be important in active learning such as group discussions or case studies. example of media can include a film, song or newspaper article, even students can make their own media. Media is an important component in the

learning system, the communication process will not run optimally in learning without the media.

Anderson (1976) as cited on Foresty (2017) classify media into 10 categories as follows:

Table 2.1

No	Media Categories	Example in Learning
1	Audio	Audio tapes, radio, CD, telephone
2	Print	Textbooks, modules, brochures, leaflets, pictures
3	Audio-Print	Audio tapes that include written materials
4	Proyeksi Visual Silent	Overhead transparency (OHT), Film frames (slides)
5	Audio isual Projection Silent	Film frames (slides) voiced
6	Visual Motion	Silent film
7	Audio Visual Motion	silent motion film, video / VCD, TV
8	Physical Objects	Real objects, models, specimens
9	Humans and the Environment	Teacher, librarian, laboratory
10	Computer	CAI (Computer Assisted Instructional = computer-assisted learning), CMI (Computer Managed Instructional)

### 2.3.2 The Use of Learning Media in Language Learning

Media has an important role in learning. Media can make both students and teacher engaged in class. Based on Williams (2018), role of media in classroom are; appeal to multiple learning styles, create an authentic learning experience, strengthens critical-thinking skills, teaches students to use media. While, Tileston

(2003) stated that media can give effect on students' modalities, motivation behavior management, reaching higher levels of thought, and real world applications. Thus, media is important in learning process. Media make easier to access information, make an interesting learning process and also make students exciting.

The advantages of using media based on Pedagogy in Action (2018), such as; media can gain students' attention and maintain students' interest, students can sharpen their analytical skills, enable students to see concepts and new examples, experience world beyond their own. In addition to numerous advantages, there are also a number of cautions that should keep in mind in utilizing media. The challenges of using media according to Perez (2015) are; how to implement media effectively, understanding how it works, and how to integrate media in learning. Finally, using media in classroom make students aware with the changing of electronic communications nowadays. Through media, students not only learn to access about the material, gain information, but students can value and become wise when using the media.

#### **2.4 Review of Relevant Studies**

There are some previous researches which are relevant to this study. First, research from Shaharane et.al (2016) did a research about the effectiveness of Google Classroom's active learning activities for data mining subject under the decision sciences program. Technology Acceptance Model (TAM) has been employed to measure the effectiveness of the learning activities. The target populations for this research were students who enrolled in data mining subject where the class was taught in a computer lab. In order to have random selection

method, simple random sampling had been applied when choosing the sample. The survey included questions on demographics, five predictor variables, and student satisfaction. Demographic questions covered gender, marital status, course, and the average on internet accessed. In order to develop the questionnaire, the Internet self-efficacy scale was developed by Eastin & LaRose and used as reference. A total of 100 valid unduplicated responses from students who enrolled in data mining subject were used in this study. The results indicated that the majority of students felt satisfy with Google Classroom's tools that were introduced in the class. Results of data analysis showed that all ratios are above averages. In particular, comparative performance is good in the areas of ease of access, perceived usefulness, communication and interaction, instruction delivery and students' satisfaction towards Google Classroom's active learning activities.

The second study is from Iftakhar (2016), the study is about what and how Google Classroom works. The purpose of this study is to report the overall view of Google Classroom from different class. This research presents brief features of Google Classroom. In addition, some adoption factors (such as organizational, social, personal and technological) have been reassessed for the research purpose. The research questions are a) What factors influence teacher to use Google Classroom? b) How does teacher use Google Classroom in their teaching? c) What are the barriers to use Google Classroom? D) What are students' responses to the Google Classroom? The analysis of the results of the questionnaire indicate that this study can be effective in understanding and evaluating teachers' and learners' perceptive to ensure quality teaching and learning through Google classroom. This

study also presents some new evidence on the potential of Google classrooms in teaching. This study used interview and observations to collect the data. The participants were teachers and students of Daffodil International University. The interviews were conducted with seven teachers: four males and three females. Three teachers are from BBA Department, one teacher is from LLB, two teachers are from English Department and one from CSE. 35 students also selected from English Department. The total respondents were 42. The result of the study shows that from teachers' perspective, they agree that Google Classroom is very useful. From students' perspective, some said that Google Classroom is also helpful, while others stated that they scared and instructed when using Google Classroom.

The third study is from Wijaya (2016). The study is about analysis of factors affecting on the use of Google Classroom to support lecturers. The study was developed by adopting the model of TAM to see from both the perception in the TAM that affect the use of Google Classroom by some students STT Musi. Population of this research is the students who are already using Google Classroom in the lecture. Data obtained as much as 90 questionnaires distributed by using purposive sampling technique to all students active in the odd academic year 2014-2015. Results from this study showed that the of perceived Easy of Use and perceptions of perceived usefulness positively affect the use of Google Classroom. And both these perceptions also jointly affect the use of Google Classroom.

The last one is from student of English Language Education Department, Rosyati (2013). Her research is about the challenges in using Google Classroom. The purpose of the research is to identify the challenges of using

Google Classroom as a learning tool for students of English Language Department Islamic University of Indonesia. The method of the research is quantitative research. The research involved 126 students of English Language Department in Islamic University of Indonesia, consist of 3 batches there are 2014, 2015 and 2016. The result of the research can be interpreted as the students feel that most challenging aspect in using Google Classroom is not very helpful for them to minimize their time and effort in doing and collecting the assignment.

The differences between these researches and my research are on the variable, subjects of the study, participants, and methodology used. In this study, the researcher adopts the Shaharane et.al (2016) questionnaire because the questionnaire is reliable with value above 0.90. This research aims to identify students' responses on using Google Classroom. The participants were students of English Language Education Department batch 2014-2017 because students in English Language Education Department already used Google Classroom. This research used quantitative method. Those researches are relevant with this study because those researches also examining about Google Classroom; thus, they can be used as references.

## **2.5 Theoretical Framework**

In essence, the main topic of this research is to identify what are the students' responses on the use of Google Classroom at English Language Department as one of a learning tool. The researcher used survey method to reach the data and the research conduct on the students of batch 2014, 2015, 2016, and 2017.



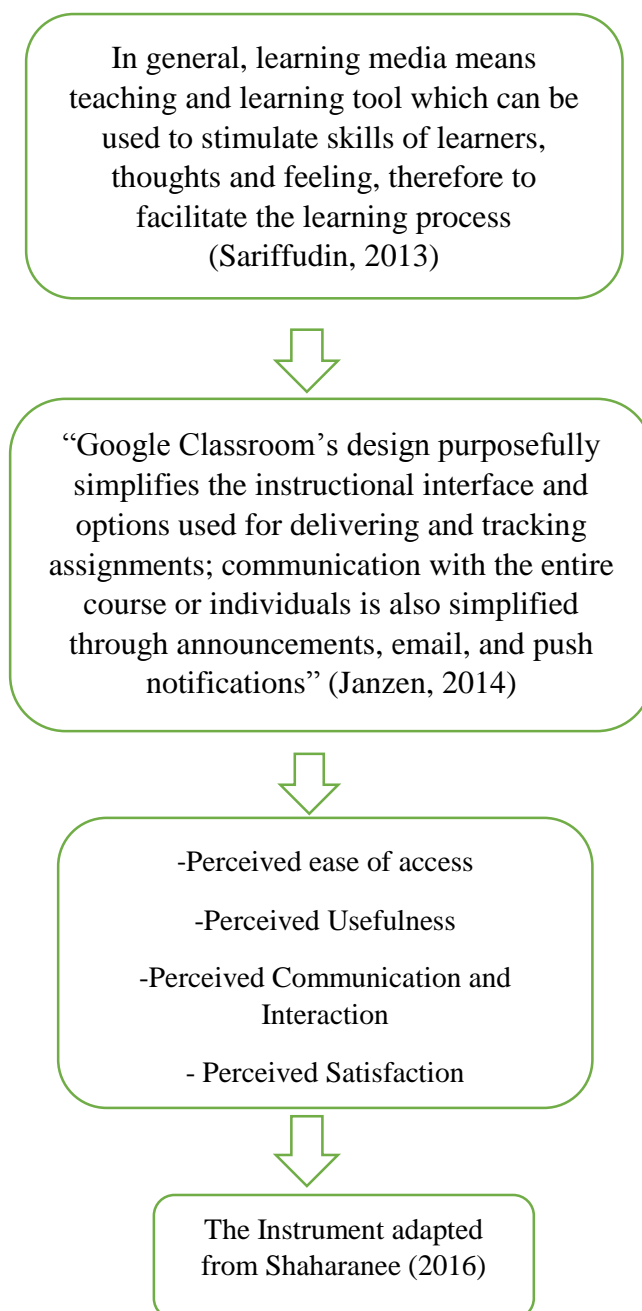


Figure 1. Theoretical Framework

## 2.6 Definition of Key Terms

In discussing this title, the researcher finds several terms that need further explanation as clearly as possible to avoid misunderstanding in this research study.

Learning Media

According to Sariffudin (2013), in general, learning media means teaching and learning tool which can be used to stimulate skills of learners, thoughts and feeling, therefore to facilitate the learning process

Google Classroom

Google Classroom is a tool which make both students and teacher collaboration; also teacher can create and distribute assignments for students in an online classroom for free (Nagele, 2017).

CMC

Computer-mediated communication (CMC) is a process in which human data interaction occurs through computer (Simpson, 2002)

PBI (English Language Education Department)

PBI is one of the major in Faculty of Psychology and Socio-Cultural Sciences, Islamic University of Indonesia.

ICT

ICT (Information and communications technology), some components that sustain modern computing Rouse (2007-2018)

TAM

TAM (Technology Acceptance Model), a user accept information systems technology based on the theory of reasoned action (Surendran, 2012).

## **CHAPTER III**

### **RESEARCH DESIGN**

This chapter presents the method which is used for collecting data in this research. This chapter will discuss the research design, including research method and design, population and sample, data collection technique, and data analysis technique.

#### **3.1 Research Design**

This research was designed to identify students' responses on the use of Google Classroom at the English Language Education Department of the Islamic University of Indonesia.

This research used quantitative research method based on the aims and needs of the research. According to Creswell (2009), "quantitative research is an approach for testing objective theories by examining the relationship among variables". These variables can be measured, usually on instruments; thus, numbers of data can be analyzed using statistical procedures. Instruments are used to collect data and the information. Based on Arikunto (2006), in quantitative research, according to its name many are required to use numbers, ranging from data collection, interpretation of the data, and appearance of the results. Quantitative research is very strictly applying the principles of objectivity. The objectivity is obtained, among others, through the use of instruments that are tested for validity and reliability.

This research specifically used survey research. Survey research provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population (Creswell, 2009). The purpose of the survey is to explain the characteristics of a population. In essence, what the researcher wants to discover was how members of a population were distributed themselves on a variable or more (for example: age, ethnicity, religion, attitude toward school).

## **3.2 Population and Sample**

### **3.2.1 Population**

This research was conducted at English Language Education Department, Islamic University of Indonesia, batch 2014, 2015, 2016, and 2017. According to Arikunto (2006), population is the overall subject of research. The population in this research consists of 316 students based on the total active students in English Language Education Department, Islamic University of Indonesia. There were 45 students in batch 2014, 72 students in batch 2015, 91 students in batch 2016, and 108 students in batch 2017. The researcher chose students of English Language Education Department UII batch 2014, 2015, 2016, and 2017 because they already had experiences on using Google Classroom.

### **3.2.2 Sampling**

Sample is a part of population which has same characteristics (Arikunto, 2006). The population of this research consisted of 316 students of English Language Education Department batch 2014, 2015, 2016, and 2017. The technique for selecting sample in this research was using probability sampling. It is a sampling technique which provides equal opportunity for each element (member) of the

population to be selected as a sample member. According to Creswell (2009), in probability sampling, representative sample from a population provides the ability to generalize to a population. Probability sampling has four methods namely simple random sampling, proportionate stratified random sampling, disproportionate random sampling and cluster sampling. This research used proportionate stratified random sampling. This method is used when the population has a member/element that is not homogeneous and stratified proportionally. Proportionate stratified random sampling is done by making layers (strata). Then, each layer is taken as a number of subjects randomly. The number of subjects from each layer (strata) is the research sample.

This research used 5% of error rate to set the target sample of the students. Slovins' formula was used to calculate the number of sample from the population. The Slovins' formula shown as followed.

$$n = \frac{N}{1+Ne^2}$$

Explanation:

$n$  = Number of sample

$N$  = Population

$e$  = Error rate (5% = 0.05)

This research used error rate of 5% to determine the number of sample. It is pretty much impossible to achieve 100% perfect result in every study, as the bigger number of the error rate, the less number the sample sizes. The population was 316 students; therefore, the calculation for the sample shown as followed:

$$n = \frac{316}{1+(316)(0,05^2)}$$

$$n = \frac{316}{1,79}$$

$n = 176,536$  or 177 students.

Therefore, the sample would be 176,536, from 176,536 then rounded to 177; the numbers behind the comma was above 500. Finally, the sample in this research was 177 students.

In order this research used proportionate stratified sampling, it should calculate the strata from batch 2014, 2015, 2016 and 2017. The calculation is as followed.

Table 3.1

The Data Calculation of Proportionate Stratified Sampling

No	Batch	Calculation of Proportionate Stratified Sampling	Result
1	2014	$45/316 \times 177$	25
2	2015	$72/316 \times 177$	40
3	2016	$91/316 \times 177$	50
4	2017	$108/316 \times 177$	61
<b>Total</b>			<b>100%</b>

### 3.3 Data Collection Techniques

This subchapter explains data collecting techniques, including instrument, validity and reliability.

#### 3.3.1 Instrument

Research instrument is a tool chosen and used by the researcher in conducting its activities to collect the data, so that the activity becomes systematic and easy (Arikunto, 2006). This part explains about instrument that the researcher used to collect data. In this research, the researcher used questionnaire as the instrument to

find the result of the study. Here, students' responses would be measured by questionnaire as the research instrument which was adopted from Shaharane et.al (2016), with the internet self-efficacy scale that was developed by Eastin & LaRose as reference.

The contents of questionnaire were Ease of Access (6 questions), Perceived Usefulness (7 questions), Communication and Interaction (6 questions), and Students' Satisfaction (4 questions). The answers to each item used a Likert scale. Each item of the questionnaire had level from very positive to very negative. Respondents answered these questions using the following 5-point scale as followed.

Table 3.2  
The Likert Scale for Positive Statements

<b>Likert Scale</b>	<b>Score</b>
Strongly agree	5
Agree	4
Neutral	3
Disagree	2
Strongly Disagree	1

The higher the number that the students indicate, the more satisfy the students with Google Classroom; thus, the results show that Google Classroom is useful and efficient as an active learning tools.

### **3.3.2 Validity**

Instrument can be valid if the instrument can accurately measure what it wants to measure. In other words, validity is related to "accuracy" with the measuring instrument (Widiyoko, 2012). A scale or measuring instrument can be said to have



a high degree of validity if the instrument performs its measuring function, or provides a measurable result in accordance with the purpose of the measurement. While tests that have low validity will produce data that is not relevant to the purpose of measurement. A valid measuring instrument is not only capable of producing the right data, but also must provide a careful picture of the data. Validation is an important process for researcher to take consideration when he/she selects instrument.

This part explains about how to ensure that instrument of students' responses on the use of Google Classroom is appropriate to serve the purpose of this research. The researcher used 23 items adapted from Shaharane et.al (2016) as the instrument in this research to find out empirical evidence of students' responses on the use of Google Classroom, in English Language Education Department Islamic university of Indonesia batch 2014, 2015, 2016, and 2017.

To test the validity of constructs can be used by expert judgement. In order to measure the instrument, it used by particular theory after the aspects is constructed, then consulted with experts. Experts are consulted about the instruments that have been compiled. According to Widiyoko (2009), construct validity refers to the extent to which the instrument measures the concept of a theory, which is the basis for the preparation of the instrument. The definition or concept measured comes from the theory used.

### **3.3.3 Reliability**

The test instrument is reliable if it gives consistent result when it is tested many times (Widiyoko, 2012). In the research, reliability is the extent to which the

measurements of a test remain consistent after repetition of the subject and under the same conditions. Research is considered to be reliable when delivering consistent results for similar measurements. However, it is unreliable if repeated measurements give different results. In order to determine the reliability of Shaharane et.al (2016) questionnaire, Cronbach's Alpha Coefficient was employed to test it. The result shows that the questionnaire is reliable with value above 0.90. Data was analyzed using both descriptive statistics and inferential statistic.

### **3.4 Data Analysis Technique**

The questionnaire used in this research took 23 items of Shaharane et.al (2016). The first part was designed to collect information of the respondents, such as name, age, gender, and student number. Those are only general personal information for respondents to fill in the questionnaire. This questionnaire presented by circling the number (1, 2, 3, 4 or 5). The variables will be measured in a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

In quantitative research, there are two methods to analyze data (descriptive statistics and inferential statistics). Descriptive statistics are statistics used to analyze data by describing data that has been collected, as it is without intending to make conclusions that apply in general or generalization. While, inferential statistics are statistical techniques used to analyze sample data and the results are applied to the population. In addition, these statistics are well suited to use when samples are drawn from a well-defined population and samples are collected randomly. Sugiyono (2012) stated, generally sampling technique is done by

random, data collection techniques using the instrument of quantitative research methods, quantitative data analysis or statistics aims to test the hypothesis that has been established. This research method has the design of quantitative method because the research data in the form of numbers and data analysis using statistics. The steps in analyzing the data in this study were as followed.

1. Reviewing of online learning, Google Classroom and learning media. Shaharane et.al (2016) questionnaire were chosen as the instrument.
2. Checking one by one item in questionnaire to make sure that is was easy to understand the meaning.
3. Distributing 23 items questionnaire to 177 English Language Education Department students batch 2014, 2015, 2016, and 2017.
4. After collecting all data, the results are analyzed by using Microsoft Excel application to analyze the data from questionnaire into statistical package.
5. The main findings can be analyzed by looking at the whole average score from the highest to the lowest result. High score indicates that respondents are satisfy with Google Classroom; therefore, it shows that it is useful and efficient as an active learning tools. Low score indicates that respondents are not satisfy and interested to Google Classroom.

## CHAPTER IV

### RESEARCH FINDING AND DISCUSSION

This chapter describes all the findings of the data collected and its analysis. Data of this research is presented in the findings while analysis of the research data is elaborated in discussions.

The result consists of three parts; respondent's general information, the frequency of internet access, and students' responses on the use of Google Classroom based on Shaharane et.al (2016) questionnaire which are categorized into four parts; ease of access, perceived usefulness, communication and interaction, students' satisfaction. Additionally, chart was also presented to give detailed explanations.

#### 4.1 Research Finding

##### 4.1.1 The Result of Respondent Personal Information

Respondent personal information that completed the questionnaire shown in the chart below:

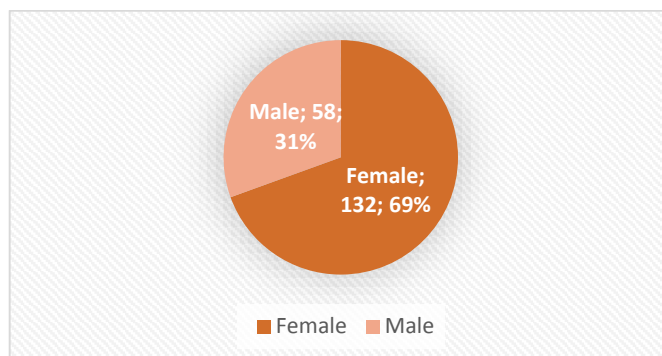


Figure 2. Chart of The Result of Respondent Personal Information

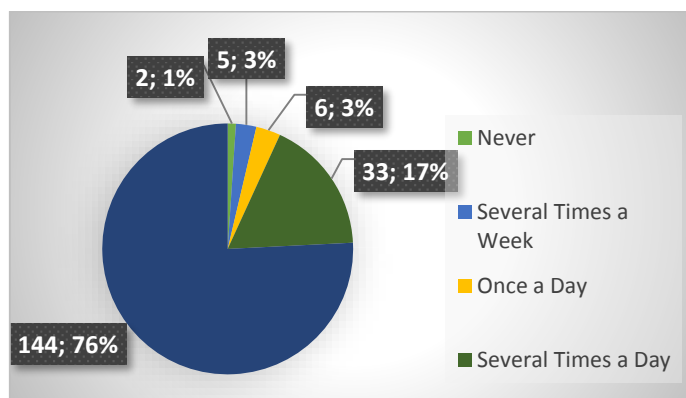


Figure 3. Chart of the Frequency of Internet Access

From the data shown above, total respondent was 190 from 316 students who completed the questionnaire and dominated by female with 132 respondents and then followed by male about 58 respondents. Slightly above 70% respondents use the internet many times a day. It implies that most of the respondents are familiar with the use of internet and web-based programs.

#### 4.1.2 Main Findings

This chapter aims to answer the research question on students' responses on the use of Google Classroom. There are 23 questions related to students' responses on the use of Google Classroom. This research was conducted at the Islamic University of Indonesia. This study only focused on students English Language Education major, especially students of 2014, 2015, 2016, and 2017 who used Google Classroom as one of the learning tools. Based on research data via questionnaire to 190 students batch 2014, 2015, 2016, and 2017, the data shows that the highest score is 4.37 and the lowest score is 3.44.

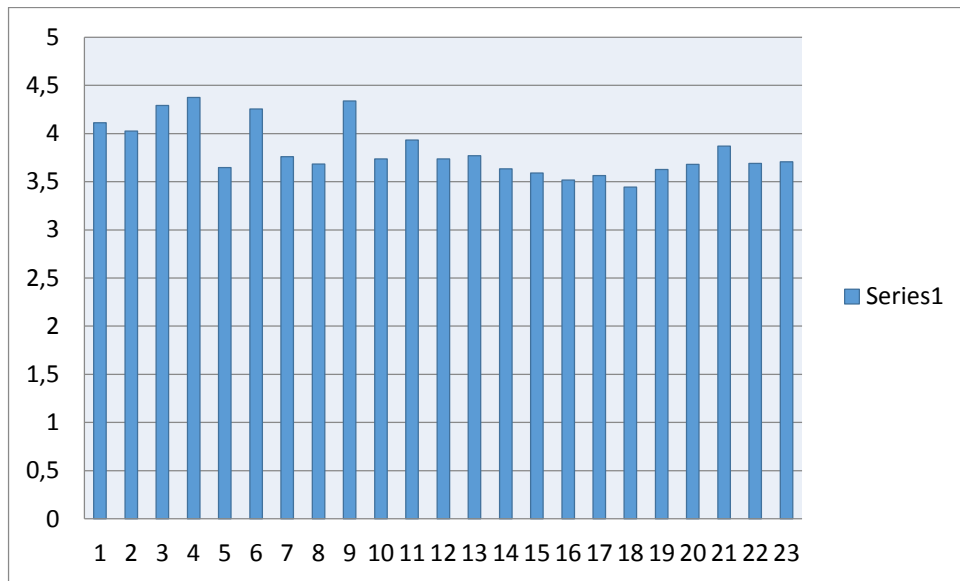


Figure 4. Chart of the main finding

Based on the whole finding from the questionnaire, the highest average of the data comes from question number 4 (Submitting assignment) with score 4.37. While the lowest score from the whole data come from question number 18 (Lecturers are enthusiastic in teaching and explaining via the Google Classroom.) with score 3.44.

#### 4.1.3 Finding of Each Part of the Questionnaire

##### 4.1.3.1 Ease of Access

Based on the results of questionnaire answered by the respondents, the average of Ease of Access is shown in the chart below.

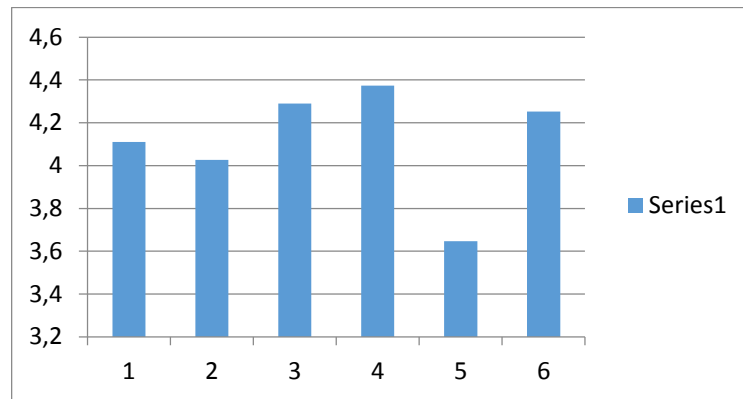


Figure 5. Chart finding of Ease of Access

The following is the statements shown in the questionnaire.

1. Signing on to the Google Classroom.
2. Accessing course materials.
3. Sending and receiving assignment.
4. Submitting assignment.
5. Navigating the system.
6. Easy to understand the system.

The chart above describes the ease of access of Google Classroom. The highest average is from question number 4 (submitting assignment) with score 4.37. Thus, it can be concluded that respondents feel submitting assignment is easy in Google Classroom. They do not find any difficulty.

#### 4.1.3.2 Perceived Usefulness

Based on the result of questionnaire answered by the students, the average of Perceived Usefulness is shown in the chart below.

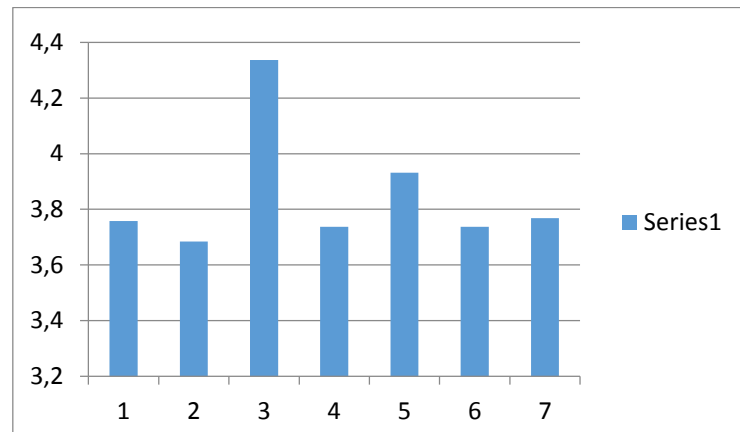


Figure 6. Chart finding of Perceived Usefulness

The following is the statements shown in the questionnaire.

1. The quality of learning activity was excellent.
2. Google classroom is an excellent medium for social interaction (lecturer vs students and student vs student) as demonstrated by this activity.
3. Google classroom help me to submit assignment on time.
4. The course activities helped me to examine issues, to evaluate new ideas, and to apply what I have learned.
5. The feedback provided by the lecturer is useful.
6. The grading system in Google classroom help in monitoring my performance and understanding the current topic discussed.
7. The subject objective, assessment and content were consistent with the aid of Google Classroom.

The chart above describes the perceived usefulness of Google Classroom. The highest average comes from question number 3 (Google Classroom help me to submit assignment on time) with score 4.33. It can be concluded that respondents



feel Google Classroom has helped them to submit assignment on time because there is deadline in Google Classroom.

#### 4.1.3.3 Communication and Interaction

Based on the result of questionnaire answered by the students, the average of Communication and Interaction is shown in the chart below.

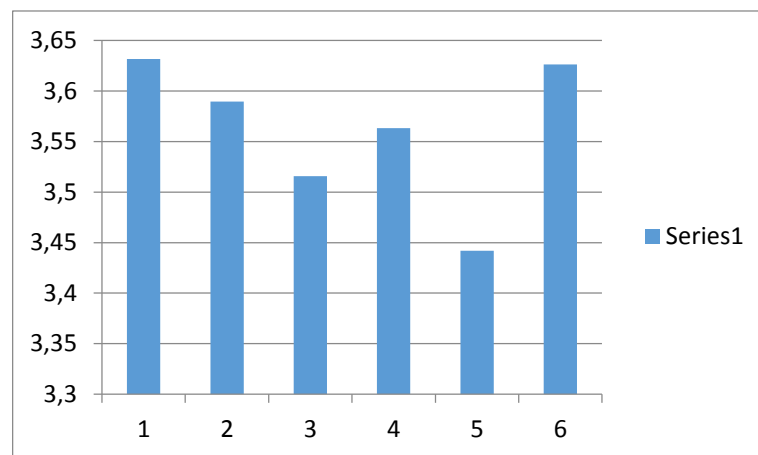


Figure 7 Chart finding of Communication and Interaction

The following is the statements shown in the questionnaire.

1. I felt comfortable conversing through this medium for this activity.
2. Lecturer helped to keep course participants engaged and participating in productive discussion.
3. I felt comfortable interacting with other participants in this activity.
4. My point of view was acknowledged by other participants during this activity.
5. Lecturers are enthusiastic in teaching and explaining via the Google Classroom.
6. Lecturers are friendly, approachable and could be easily contacted.

The chart above describes the communication and interaction on using Google Classroom. The highest average comes from question number 1 (I felt

comfortable conversing through this medium for this activity) with score 3,63. Therefore, it can be concluded that respondents feel comfortable using Google Classroom as learning tool.

#### 4.1.3.4 Students' Satisfaction

Based on the result of questionnaire answered by the students, the average of Perceive Instruction Delivery is shown in the chart below.

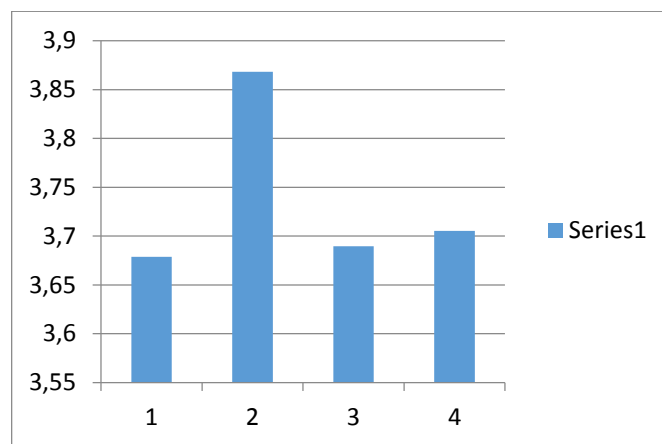


Figure 8. Chart finding of Students' Satisfaction

The following is the statements shown in the questionnaire.

1. The subject met my personal goal through the medium introduced.
2. I would recommend this method of learning to be applied to other appropriate subject.
3. Google classroom is my first choice in active learning compare to other method.
4. I like the Google Classroom as a learning initiative and motivation booster.

The chart above describes respondents' satisfaction on using Google Classroom. The highest average comes from question number 2 (I would recommend this method of learning to be applied to other appropriate subject) with

score 3,86. It can be concluded that respondents feel Google Classroom is useful in learning process and they feel satisfied with Google Classroom.

#### **4.2 Discussion**

The questionnaire used in this study is a questionnaire taken from the study of Shaharane et.al (2016). The questionnaire is used to collect data about students' responses on the use of Google Classroom by the students of English Language Education Department. The researcher elaborated further on the results of data processing that have been discussed earlier.

The results of the data from the students of English Language Education Department of batch 2014, 2015, 2016 and 2017 are calculated in 2 steps. First step is about the overall data. Based on the chart, the highest average comes from question number 4 (submitting assignment) with score 4.37. While the lowest score from the whole data comes from question number 18 (Lecturers are enthusiastic in teaching and explaining via the Google Classroom.) with score 3.44.

Second step describes about each part of the questionnaire. Ease of Access consists of 6 questions; with average  $\bar{X} = 4.11$ . The highest score is number 4 (submitting assignment) with average 4.37 which means respondents strongly agree that Google Classroom makes it easier for them to submit assignments. The lowest score is number 5 (navigating the system) with average 3.64 which means respondents disagree that navigation system in Google Classroom is easy. However, it is still included in high category.

Perceived Usefulness consists of 7 questions with average  $\bar{X} = 3.85$ . The highest score is number 3 (Google Classroom helps me to submit assignment on

time) with average 4.33 which means respondents strongly agree that Google Classroom helps them to submit assignments on time. The lowest score is number 2 (Google Classroom is an excellent medium for social interaction (lecturer vs students and student vs students) as demonstrated by this activity) with score 3.68 which means respondents disagree that Google Classroom does not indicate any use for social interaction. Nevertheless, it is still included in high category.

Communication and Interaction consists of 6 questions with the highest average  $\bar{X} = 3.56$ . The highest score is number 1 (I felt comfortable conversing through this medium for this activity) with average 3.63 which means students strongly agree that Google Classroom makes their communication and interaction comfortable. The lowest score is number 5 (Lecturers are enthusiastic in teaching and explaining via the Google Classroom) with average 3.44 which means respondents disagree that lecturers are enthusiastic in teaching and explaining via Google Classroom.

Student's Satisfaction consists of 4 questions with average  $\bar{X} = 3.73$ . The highest score is number 2 (I would recommend this method of learning to be applied to other appropriate subject) with average 3.86 which means respondents strongly agree that they feel satisfy with Google Classroom and will recommend to other appropriate subjects. The lowest score is number 1 (The subject met my personal goal through the medium introduced) with average 3.67 which means respondents disagree that Google Classroom cannot reach their personal goal. However, it still included in high category.

To sum up, the result on the of part Ease of Access shows that most students do not find any difficulties in operating Google Classroom and Google Classroom is easy to use as a learning tool. This result is similar with Iftakhar (2016), that among students' participants of his research, 18 agree that Google Classroom is effective and easy to use.

The part on Perceived Usefulness shows that most students feel Google Classroom is useful in their learning process. This result is similar with Wijaya (2016), that they are already feeling the benefits provided by the e-learning itself. It also means that students benefit when using Google Classroom. Respondents also said that Google Classroom can also increase the effectiveness in completing the tasks assigned by the Faculty.

The part on Communication and Interaction shows that through Google Classroom, most students feel communication and interaction can be easier. Part Students' Satisfaction shows that most students feel satisfy with Google Classroom as a learning tool. This result is similiar with Iftakhar (2016), the respondents said taht They can get so many uploaded files at a time. As they have been given Gmail id from the DIU (Daffodil International University), they can join the class by using class code from anywhere and anytime.

The part on Students' Satisfaction shows that most students feel satisfied with Google Classroom as a learning tool. This result is similiar with Shahraneet al (2016) that many students feel satisfied with Google Classroom because of its effectiveness and efficiency.

## CHAPTER V

### CONCLUSION AND RECOMMENDATION

This chapter describes the summary of the research based on research finding in previous chapter and recommendation for further research.

#### 5.1. Conclusion

The purpose of this research is to identify the students' responses on the use of Google Classroom for students of English Language Education Department, Islamic University of Indonesia. There were 190 students who completed the questionnaire about Google Classroom. By seeing the demography of the questionnaire, the sample of this research consisted of 58 male and 132 female participants participated to fill in the questionnaire.

The conclusion in this research is based on the research findings and discussion on students' responses on the use of Google Classroom. This research shows that in general, students in English Language Education Department, Islamic University of Indonesia batch 2014, 2015, 2016, and 2017 feel accessing Google Classroom is easy ( $\bar{X} = 4.11$ ), Google Classroom perceives usefulness ( $\bar{X} = 3.85$ ), Google Classroom makes their communication and interaction easier and comfortable ( $\bar{X} = 3.56$ ), and students feel satisfy with Google Classroom ( $\bar{X} = 3.73$ ). The result of this research shows that Google Classroom is usefull and helpfull for the students and they felt satisfied with Google Classroom.

## **5.2 Recommendation**

In general, based on the result of this research, recommendations are divided into three parts, as followed.

First of all, it is suggested for students of English Language Education Department batch 2014, 2015, 2016, and 2017 to maximize the use of Google Classroom. Students are expected to use Google Classroom properly and creatively, because the way students use a tool is what makes the difference. The way the students properly use Google Classroom can make learning better, more engaging, and more student-centered.

Secondly, it is suggested for lecturer of English Language Education Department to pay more attention and help students to easily navigate the system of Google Classroom, use Google Classroom for social interaction, be more enthusiastic in teaching and explaining via Google Classroom, and provide feedback to the students; thus, they will have better understanding in the course.

The last, the current study offers recommendation for further study. As this present study only focus on population of English Language Education Department, hopefully, next study can continue this research on the other department. Thus, it can get more varied data and it can improve e-learning implementation in Islamic University of Indonesia.

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## APPENDIX 1

### Questionnaire

*The Survey of Students' responses on the use of Google Classroom*

---

#### GENERAL DEMOGRAPHIC

*Put a mark (✓) to the answer for each question below, and fill the blank*

Name :

Gender :  Male  Female

Age :

Batch :  2014  2015  2016  2017

Phone Number :

How often the internet is accessed? :  Never  
 Once a Week  
 Several Times a Week  
 Once a Day  
 Many Times a Day

---

#### POSITIVE STATEMENTS

*Put a mark (✓) on each statement below*

##### Information:

- SD : Strongly Disagree = 1 point  
D : Disagree = 2 points  
N : Neutral = 3 points  
A : Agree = 4 points

SA : Strongly Agree = 5 points

**EASE OF ACCESS**

No	Statements	SD	D	N	A	SA
1	Signing on to the Google Classroom					
2	Accessing course materials					
3	Sending and receiving assignment					
4	Submitting assignment					
5	Navigating the system					
6	Easy to understand the system					

**Perceived Usefulness**

No	Statements	SD	D	N	A	SA
1	The quality of learning activity was excellent					
2	Google classroom is an excellent medium for social interaction (lecturer vs students and students vs student) as demonstrated by this activity					
3	Google classroom help me to submit assignment on time					
4	The course activities helped me to examine issues, to evaluate new ideas, and to apply what I have learned					
5	The feedback provided by the lecturer is useful					
6	The grading system in Google classroom help in monitoring my performance and understanding the current topic discussed.					
7	The subject objective, assessment and content were consistent with the aid of Google Classroom.					

**Communication and Interaction**

No	Statements	SD	D	N	A	SA
1	I felt comfortable conversing through this medium for this activity.					

2	Lecturer helped to keep course participants engaged and participating in productive discussion.					
3	I felt comfortable interacting with other participants in this activity.					
4	My point of view was acknowledged by other participants during this activity.					
5	Lecturers are enthusiastic in teaching and explaining via the Google Classroom.					
6	Lecturers are friendly, approachable and could be easily contacted.					

### Students' Satisfaction

No	Statements	SD	D	N	A	SA
1	The subject met my personal goal through the medium introduced.					
2	I would recommend this method of learning to be applied to other appropriate subject.					
3	Google classroom is my first choice in active learning compare to other method.					
4	I like the Google Classroom as a learning initiative and motivation booster.					

## APPENDIX 2

### THE INDONESIAN VERSION OF THE QUESTIONNAIRE

#### KUISIONER

*Survei tanggapan Siswa tentang penggunaan Google Kelas*

---

#### DEMOGRAFI UMUM

*Beri tanda (✓) ke jawaban untuk setiap pertanyaan di bawah ini, dan isi yang kosong*

Nama :

Jenis Kelamin :  Laki-Laki  Perempuan

Umur :

Angkatan :  2014  2015  2016  2017

Nomor Telepon :

Seberapa sering internet di akses? :  Tidak pernah  
 Seminggu sekali  
 Beberapa kali seminggu  
 Sehari sekali  
 Beberapa kali sehari

---

#### PERNYATAAN POSITIF

*Beri tanda (✓) pada setiap pernyataan di bawah ini*

#### Informasi:

- STS : Sangat Tidak Setuju = 1 poin  
TS : Tidak Setuju = 2 poin

N : Netral = 3 poin

S : Setuju = 4 poin

SS : Sangat Setuju = 5 poin

#### **Kemudahan dalam mengakses**

No	Pernyataan	STS	TS	N	S	SS
1	Masuk ke Google Kelas					
2	Mengakses materi khusus					
3	Mengirim dan menerima tugas					
4	Mengirim tugas					
5	Menavigasi system					
6	Mudah dimengerti sistemnya					

#### **Merasakan Kegunaan**

No	Pernyataan	STS	TS	N	S	SS
7	Kualitas kegiatan belajar sangat bagus					
8	Ruang Kelas Google adalah media yang sangat baik untuk berinteraksi sosial (dosen dengan siswa dan siswa dengan siswa) seperti yang di tunjukkan oleh kegiatan ini					
9	Google kelas membantu saya untuk menyerahkan tugas tepat waktu					
10	Kegiatan kursus membantu saya untuk memeriksa masalah, mengevaluasi ide-ide baru, dan menerapkan apa yang telah saya pelajari					
11	Umpan balik yang diberikan oleh dosen berguna					
12	Sistem penilaian di kelas Google membantu dalam memantau kinerja saya dan memahami topik yang sedang dibahas saat ini					
13	Tujuan subjek, penilaian, dan konten konsisten dengan bantuan Google Kelas					

#### **Komunikasi dan Interaksi**

No	Pernyataan	STS	TS	N	S	SS
14	Saya merasa nyaman berbicara melalui media ini untuk kegiatan ini					



15	Dosen membantu untuk membuat peserta kursus terlibat dan berpartisipasi dalam diskusi produktif					
16	Saya merasa nyaman berinteraksi dengan peserta lain dalam kegiatan					
17	Sudut pandang saya diakui oleh peserta lain selama kegiatan ini					
18	Dosen sangat antusias dalam mengajar dan menjelaskan melalui Google Kelas					
19	Dosen ramah, mudah didekati dan mudah dihubungi					

### Kepuasan Siswa

No	Pernyataan	STS	TS	N	S	SS
20	Subjek tersebut memenuhi tujuan pribadi saya melalui media yang diperkenalkan					
21	Saya akan merekomendasikan metode pembelajaran ini untuk diterapkan pada subjek lain yang sesuai					
22	Google kelas adalah pilihan pertama saya dalam pembelajaran aktif dibandingkan dengan metode lain					
23	Saya suka Google Kelas sebagai prakarsa belajar dan pendorong motivasi					

## APPENDIX 3

### Validity Test

Uji validitas

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
X1	99,07	180,133	,407	.	,918
X2	99,10	179,472	,426	.	,918
X3	98,83	179,040	,542	.	,917
X4	98,90	177,955	,473	.	,918
X5	99,70	175,941	,567	.	,916
X6	98,77	172,737	,752	.	,913
X7	99,60	180,731	,448	.	,918
X8	99,40	177,214	,562	.	,916
X9	98,60	174,662	,672	.	,914
X10	99,70	186,424	,177	.	,921
X11	99,00	175,241	,621	.	,915
X12	99,57	175,978	,644	.	,915

X12	99,57	175,978	,644	.	,915
X13	99,43	179,289	,491	.	,917
X14	99,67	177,195	,510	.	,917
X15	99,73	177,030	,525	.	,917
X16	99,70	178,769	,558	.	,916
X17	99,57	177,495	,649	.	,915
X18	99,77	178,944	,365	.	,920
X19	99,67	171,126	,567	.	,916
X20	99,00	175,862	,624	.	,915
X21	98,83	180,075	,460	.	,918
X22	99,13	174,395	,697	.	,914
X23	99,07	177,995	,500	.	,917
X24	99,20	177,752	,521	.	,917
X25	99,67	181,747	,433	.	,918
X26	99,33	180,713	,436	.	,918
X27	100,07	181,651	,311	.	,920
X28	99,83	173,040	,634	.	,915

## APPENDIX 4

### Data Analysis

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## APPENDIX 5

### Internet Self-Efficacy Scale by Eastin and LaRose

Table 1  
Factor Loadings of the Internet Self-Efficacy Scale

Scale Item	Factor Loadings	Mean(SD)
I feel confident...		
1 ... understanding terms/words relating to Internet hardware.	.86	5.05(1.83)
2 ... understanding terms/words relating to Internet software.	.91	4.94(1.78)
3 ... describing functions of Internet hardware.	.93	4.63(1.85)
4 ... trouble shooting Internet problems.	.85	4.14(1.86)
5 ... explaining why a task will not run on the Internet.	.81	3.87(1.72)
6 ... using the Internet to gather data.	.65	5.47(1.46)
7 ... confident learning advanced skills within a specific Internet program.	.79	4.62(1.83)
8 ... turning to an on-line discussion group when help is needed.	.60	3.39(1.89)

Standardized Alpha = .93