

CHAPTER III

METHODOLOGY

This chapter presents the methodology employed in this study. It begins with a discussion of research design, setting and context, participant, data collection, and elaboration of data analysis relative to the instruments used.

3.1 Research Design

This study used a qualitative method to investigate students' preferences regarding Google Classroom and Schoology and answering the research questions. Qualitative research aims to explain the phenomenon profusely through deep data collection. A qualitative research focuses on understanding how participants experience a phenomenon at a certain time, with a particular context, and the multiple meanings of it for them (Heigham & Croker, 2009). The data in this study used a questionnaire and reflection as the main instruments in this study.

3.2 Setting and Context

This study was conducted at one of higher education institutions in Southeast Sulawesi, with the participants from English Department whom particularly the fifth-semester in the academic year 2019/2020. The participants use Google Classroom and Schoology from the fourth semester until the fifth semester, in some courses as an e-learning platforms. The participants used Google Classroom and Schoology to do the test, sent assignments, worked on quizzes, received materials from lecturers both video and documents. The following is a table of courses that used Schoology and Google Classroom.

Table 3.1: Courses that use Google Classroom and Schoology

Semester	Schoology	Google classroom
IV	<ul style="list-style-type: none"> • CMD I • CCU • English Phonology • Speaking IV • Translation I • ESP 	<ul style="list-style-type: none"> • Introduction to Linguistics • Writing IV • TEFL I
V	<ul style="list-style-type: none"> • CMD II 	<ul style="list-style-type: none"> • Microteaching • FLTM • RELT I

In using these E-learning platforms the participants experienced several obstacles such as poor networking, internet data runs out, application display that the participants do not understand well.

3.3 Participants

The participants of this study from classes A and B of fifth semester of the English Education Department, in the academic year 2019/2020 at one of higher education institutions in Southeast Sulawesi. Class A consist of 28 students including 5 male and 23 female students. Then, class B consist of 24 students including 4 male and 20 female students. They are about 19 and 20 years old. The The purposive sampling was used to select the participants. The participants selected based on their activeness in using Google Classroom and Schoology. As a

result, the final participants of this study were 20 participants who was selected based on the above selection process.

3.4 Data Collection

For getting the data the researcher used two steps to collect the data. For the first step was using a questionnaire and the second was a reflective journal. The questionnaire was distributed to fifth-semester students of classes A and B. The first step was the researcher sent a message via WhatsApp to each participant and ask whether they were willing to answer questionnaires on their preferences for Google Classroom and Schoology. Second, after a few minutes, the participants agreed to answer a questionnaire, then the researcher sent it to each participant. The researcher waited for a week until all participants returned the questionnaire. Third, the researcher started to distribute the reflection for each participant through a Whatsapp document. The participants were asked to write their reflections in Indonesia, not in English. After a week they returned the reflection through Whatsapp document.

3.5 Instrumentation

According to Yin (2011), research instrument are tools for collecting data. In collecting the data, there were twon instruments used in this research: questionnaire and reflective journal.

3.5.1 Questionnaire

In this study, the researcher useda questionnaire to collect the data because using a questionnaire saves more time, the rate of return is very high, the

confidentiality of the respondent's personal data is guaranteed, as Munn and Drever (1990) confirm that questionnaire have some advantages such as an efficient of use time, the possibility of a high return, and anonymity for the respondents. In this study, the researcher used a close-ended questionnaire adapted from Crisientia (2017). In the close-ended questionnaire part, the researcher provided 14 statements covering students' preferences about Schoology and Google Classroom. The questionnaire was divided into two sections for Schoology and Google Classroom with the same statement. The close-ended questionnaire here used a likert scale to collect the data from the participants. Likert scale aimed to measure the extent of subjects' agreement with each item such as; 1 = agree, 2 = strongly agree, 3 = neutral, 4 = disagree, and 5 = strongly disagree.

The indicator of this study used usability measures by Rubin and Chisnell, (2008). Nielsen (2012) defines usability as a measure of the quality of the user's experience when interacting with a product or system whether a website, software application, mobile technology, or other equipment used by the user. Rubin and Chisnell (2008) state that there are five conditions to reach the usability level: 1. *learnability* relates to how easy an application or website is to use. This convenience is measured by using the functions and features available. 2. *Efficiency*, related to the speed in carrying out tasks in a particular website or software application. 3. *Satisfaction*, it relates to user satisfaction after using the website or application. 4. *Memorability*, it relates to the ability the user his knowledge after a certain period time. These abilities the relative layout of

interface design permanent. *5.Errors*, it relates to errors created by users during interact with certain website or applications.

For this study, the researcher only used two condotions as indicators: learnability and satisfaction. These two indicators were chosen because the researcher wanted to explore how much the two learning platforms used by the leacturers have helped the students study effectively and interestingly throughout pandemic condotion. The following is a table of the items questionnaire based on the two indicators of usability criteria.

Table 3.2: Questionnaire Item Specification

Indicators	Item Specification
Learnability	Item 1, item 2, item 3
Satisfaction	Item 4, item 5, item, item 6, item 7, item 8, item 9, item 10, item 11, item 12, item 13, and item 14

3.5.2 Reflective Journal

The second instrument was reflection. The reflection was divide into four questions that contain students' preference for Google Classroom and Schoology. Reflection was used to see how students experience while using Google Classroom and Schoology. Cohen, Manion, and Morrison, (2007) state that reflective journals were use despecially in the behavioral sciences, and considered to be an effective way to obtain information about a person's feelings. The felection of this study also used usability paramters such as learnability, and satisfaction adapted from (Rubin & Chisnell, 2008), and visual design adapted

from (Hassenzahl & Tractinsky, 2006). The reflection of this study engaged students to think back about their experience when they use Google Classroom and Schoology. Such as when they first accessed Google Classroom and Schoology, when they tried to understand the features of Google Classroom and Schoology, when they did quizzes on Google Classroom and Schoology, and when they submitted assignments on Google Classroom and Schoology.

3.6 Data Analysis

3.6.1 Questionnaire

After collecting the data, the researcher analyzed the data. The researcher analyzed the data qualitatively. Wong (2008), stated that data analysis in qualitative research is a process of systematically searching, and arranging the interview transcript, observation notes, or other non-textual materials that the researcher accumulate to increase the understanding of the phenomenon. In other words, data analysis is a systematically process to analyze data that have been collected.

The questionnaire were analyzed as follows, the researcher counts the score (X score). Then, the total X score was divide into 20 as the number of students who answered the questionnaire. The research used the following formula based on Crisientia (2017) to calculate the results:

$$\bar{x} = \frac{(x_1 + x_2 + x_3 + \dots + x_n)}{n}$$

Information:

\bar{x} = average count

x_i = sample value i

n = number of samples (The total number of the students in the class.)

Furthermore, the process of calculating the data is the number of the students who choose the option from the questionnaire (n), divided by the total number of the students in the class ($\sum N$), then multiplied by 100%. The result of the data questionnaire was be provided in a percentage. The researcher used the following formula based on Crisientia (2017). The formulation is seen below:

$$\text{Percentage} = \frac{n}{\sum N} \times 100\%$$

Information:

n = The number of students who chose the option from the questionnaire.

$\sum N$ = The total number of students in the class.

After calculating the raw data, the researcher classified the data based on the students' answers from the questionnaire using two usability criteria namely learnability and satisfaction as an indicator for each item questionnaire.

3.6.2 Reflection

After analyzing the questionnaire data, the researcher evaluated the data to produce some reflection questions. Then, the identification of the reflection is done through code in the reflection. Data from reflection were coded to help researchers identify the data. In coding the data, the researcher used thematic coding (thematic analysis). Thematic coding is a way to analyze data to identify patterns or to find themes through data that has been collected by the researcher (Braun & Clarke, 2006). The theme was concerned students' preference for Google Classroom and Schoology. The example of coding the data is presented as follow.

Q1. In your opinion, which application do you prefer between Schoology and Google classroom? Explain why you choose it!

Table 3.3: Example of data coding Q1

Participants	Q1	GC is very simple & easy to understand	GC notifications help manage tasks	SC notifications sometimes don't show	GC is easy to access	SC is hard to access	G	S
S1	Among the two applications, the one that I like is Google Classroom, because I think this application is very simple and if the teacher/lecturer gives an assignment, the notification will not only go through the Google Classroom application, but a notification will also appear via our e-mail this is what I think is one of the advantages of Google Classroom which is different from the Schoology application. different from schoology all forms of notification / information regarding the tasks given will only be known when we open the Schoology application,	1	1	1			1	
S2	In my opinion, I prefer the Google Classroom application because it makes it easier for users to manage the assigned tasks. To find out if there are assignments given by the lecturer, we simply open the available assignments page. In this section will appear all the tasks that have been given. The material provided will also be automatically delivered to the student page or can also be obtained via email.		1				1	

S3	<p>I prefer the Google Classroom application because the application is very easy to access. From the first time I used it until now I have never had any trouble accessing the application. then, the GC is connected to the email so that notifications from the GC are directly connected to the email. This application is very simple so that it can facilitate users in various ways. The features provided are also very diverse and of course can help users in the learning process. Schoology is difficult to access because you have to enter your email, email password, and several options to fill in and I don't really understand. Then, SC notifications only exist in the app itself, and are not connected to email or anything so we have to log in first to see the notifications.</p>	1		1	1	1	1
S4	<p>I prefer to use google classroom, the features in it are very simple and easy to understand and it makes it very easy for me to get information about assignments or materials, what I really like is that before h-1 assignments must be collected, notifications from Google Classroom and email remind return if the collection deadline is the next day. Every time there is an important notification, the notification will appear. Unlike Schoology, Schoology notifications don't come if there are important things and Schoology also sometimes errors.</p>	1	1	1			1

S5	I prefer Google Classroom for several reasons. First, to be able to login to GC is not as complicated as Schoology . We only need e-mail to be able to have an account / login to GC. It's different with Schoology, we have to login using e-mail and create a password. Not to mention the problem of not forgetting passwords or having trouble logging in. Many friends or classmates who have problems cannot enter Schoology even though they have entered the correct e-mail and password . Second, GC has simpler features than Schoology . So it didn't take me long to master this online learning application.	1			1	1	1
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Q2.When you first open Schoology and Google classroom which is the easiest for you to understand the system?. Explain it!

Participants	Q2	GC easy to log in	SC difficult to log in	GC system is easier to understand and	GC is used Bahasa	G C	S C
S1	The easiest system when opening one of these two applications is Google Classroom. In my opinion, the display or icons provided in the Google Classroom application are not so many and really only provide a few basic options related to class assignments, such as when you first open this application, the available features are Class/Join Class, To Do List Calendar, Class Folder and Settings.			1			1

	All the features provided are really simple and it is unlikely that students will get confused when using them.				
S2	The easiest in my opinion is Google Classroom because when I first opened the application, the first screen display provided a place to join the class that had been ordered by the lecturer, then we just entered the class code that was shared by the lecturer. After that, the courses we took immediately appeared on the main screen of the application, making it easier for us to understand and find the courses we had taken on Google Classroom. but Schoology is not like that. When I first started using Schoology, I was a bit confused about how to join a class in Schoology. Apparently, first we have to select the course, then click (+), then enter the access code, and so on.	1	1		1
S3	When I first opened/accessed Schoology and google classroom, in my opinion the easiest system for me to understand was google classroom. Based on my personal experience, Google Classroom has a system that is very easy to understand for its users, including myself. Compared to the Schoology application, to be		1	1	1

	honest the first time I accessed the application I had difficulties logging in and even then I managed to log in with the help of my friend.					
S4	In my opinion, what I understand more about the system is Google Classroom. Because the features contained in it are very simple and easy to understand.			1		1
S5	The easiest for me to understand is Google Classroom because it looks simpler than Schoology. In terms of logging in to Google Classroom, it is easier than Schoology because Google Classroom only requires our email and automatically enters Google Classroom.	1	1			1

Q3. Which application do you think Google classroom and Schoology has a more attractive appearance?. Explain it!

Participants	GC have different colour for each course	sc has a modern design	SC is neat & more organized	SC each feature has a different icon	SC has monotonous color	G S C C
Q3						

<p>S1 In addition to providing/providing specific information about the tasks that will be given by the teachers, the appearance of the application and the school icon is also one of the things that makes this application more attractive, for example, the messages and notification icons. For the messages icon, it is clear that this icon is in the form of an envelope which makes it easier for us to understand that this is a message icon where we can see or receive anyone who sends us a private message. Then then the notification icon in the form of a bell that shows or makes it easier for us to understand that this icon is an icon that shows a notification that we will get, such as when receiving assignments, getting comments about assignments and other notifications that are still related to giving assignments from teachers or students. lecturer.</p>				1		1
<p>S2 In my opinion, the one that has a more attractive appearance is Google Classroom because it looks more colorful than Schoology.</p>	1					1
<p>S3 In my opinion, actually both have an attractive appearance. However, if asked to choose, the Schoology application has a more attractive appearance compared to Google Classroom. The Schoology application has very diverse features and looks that make it seem more attractive. This application also has a very aesthetic and more contemporary design.</p>		1		1		1

S4	In my opinion, from the looks of it. Schoology is more interesting, because the initial display design and what is in it are more neat and orderly.			1				1
S5	In terms of appearance, Schoology looks more attractive because it has a variety of features and different icons for each feature					1		1

Q4. Schoology and Google classroom have several features, based on the two applications, which application has the features that help you more? Explain it!

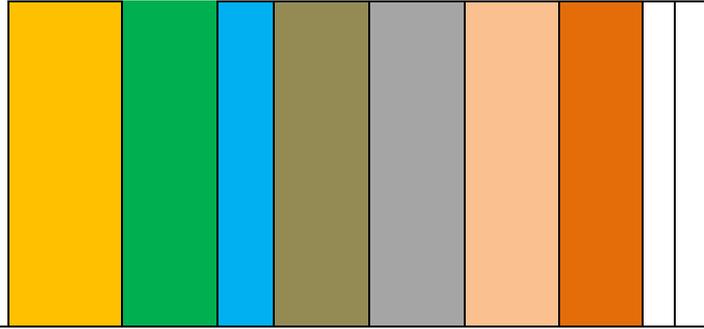
P a r t i c i p a n t s		GC notifications give a lot of information	GC grades monitor my performance kine rja	SC has complicated features	GC has a discussion room	send ing assign ments via GC is easy	send ing assign ments via SC is difficult	GC features are simple and easy to understand	G S C C
	S 1	For the features provided by the two applications, Google Classroom is an application that I think its features are quite helpful for me in completing campus assignments. In my opinion, the features provided in the application are very complete, starting from the Notification feature which provides information about the assignments to be launched/given	1	1	1			1	1

<p>by the teacher even before the teacher gives the material in the classroom, besides that this application also provides a feature in the form of a discussion room between the teacher and the students. students and the last is the Grades feature which gives/shows details about our grades after doing quizzes and some other assignments given by the teacher/lecturer.</p>								
<p>S 2 The feature that helped me more was the new to-do list widget on the class page in the google classroom app. This is very helpful for students to see upcoming, missed and graded assignments. Then, Google Classroom notifications really helped me to find out the assignments sent by the lecturer.</p>	1						1	
<p>S 3 I chose the features in Google Classroom because the features are very easy to use, such as the task collection feature, the feature where the lecturer gives material to be studied, then downloading the material is very easy. Unlike Schoology, the features of Schoology</p>		1				1	1	

are a bit complicated.

<p>S 4 I think the features in Google Classroom are more helpful for me, because the features in it are very simple and make it easier for me to get assignment information or collect assignments. And also from Google Classroom, my lecturers share material such as reading material or videos, so that it is easier for me to access them. Then the Schoology notifications are not helpful enough because sometimes the notifications don't appear.</p>						1	1
<p>S 5 In terms of features, the features in Schoology are more helpful because they have different icons for each task, such as quizzes, materials, links, and others have different icons so that we can easily identify the type of file given. However, in terms of convenience, I prefer Google Classroom because the features do not vary, so there is no need to learn many ways to operate the</p>						1	1

application based on the type of task or file.



Note

SC : Schoology

GC: Google Classroom

In addition, after coding the data the researcher classified each data through data thematization. There are three themes that adapted from Rubin and Chisnell (2008) and Hassenzahl and Tractinsky (2006). First, learnability focused on the ease of students to understand the system of Schoology and Google Classroom. Second, visual design that focused on the appearance of Google Classroom and Schoology. Third, the satisfaction that focused on students' satisfaction for the features of Google Classroom and Schoology. Further, the researcher gave the meaning to information, evaluate, conclude, responded appropriately, and predict the result, identification, and evaluation. But before interpreting the data, the researcher has to analyze the result of the data before they were narrated in the finding of this study.