

CHAPTER II

LITERATURE REVIEW

In this chapter, the researcher was discussing some theories and literature related to the matter being researched. These theories need to be described as the theoretical bases for data analysis.

2.1 Theoretical Framework

2.1.1 CALL in EFL Classroom

CALL is used by teachers and students to describe the use of computers as part of a language course (Gunduz, 2005). Another point of view by Chapelle (2010) argue that the term ‘computer-assisted language learning (CALL) refers to various uses of technology for language learning media needs including CD-ROMs that containing various interactive multimedia and other language exercises, then electronic reference materials means online dictionaries and grammar checkers, and communication electronically in the target language via email, blogs, and wikis. Those were the various technologies that were commonly used by language learners have spread over the past few years in many language classrooms and beyond.

Further, Seljan, Berger, and Dovedan (2004), as computers have become widespread in schools, homes and business, a need for language learning has become urgent and the necessity of computer literacy has become very obvious, language teachers have started to use new technologies as a

new pedagogical tool in foreign language teaching. Computer-Assisted Language Learning (CALL) programs were mostly used for manipulating texts and sentences.

In addition, in the 90s the emergence of CD-ROMs storing complete encyclopedias or language courses with text, graphics, animations, audio and video elements entered the classrooms. Multimedia computing, the Internet, and the World Wide Web have provided an incredible boost to Computer Assisted Language Learning (CALL) applications, offering a wide variety of educational programs, resources, software, journals, organizations, software tutorials including all types of exercises for grammar drills, vocabulary, listening and pronunciation exercises, games, etc (Hussain, Al-omari, & Shdeifat, 2014).

The use of technology, such as gamification, application, and devices, in language classes, is not a new thing. Digital tools, social media, and virtual environments have been extensively used in facilitating language teaching and learning in language classes (Amin & Sundari, 2020). In the 1950s and 1960s, language laboratory was one of the types of technology widely used to support teaching and learning in language classes (Cahyani & Cahyono, 2012). Nowadays, it is not uncommon when language teachers bring online tools, applications, or digital devices into the EFL classroom to facilitate their teaching as well as to create more attractive and engaging learning sessions. In addition, e-learning, including mobile device media, gives flexibility in space and time for learners (Warni & Febriawan, 2018). Technology has been extensively used in the field of foreign language teaching in the term of lesson preparation, material development,

and language testing. The discussion of technology is not new for language course designer or tester (Chalhoub-Deville, 2001).

Chen and Narayanan (2012) states that technology has proven to give positive effects in widening the horizons of foreign language learning and influencing the nature of the acquisition process and the object of study in two ways: increasing the amount of foreign language exposure and expanding scopes of foreign language input. The good main point of technology is that it can be a tool to connect EFL learners to the native speakers of the target language, both through synchronous or asynchronous modes in real communication (Alberth, 2013). Through the use of technology, EFL learners get more opportunities to search for the authentic content or materials from real language use.

Moreover, according to Alberth (2013), the empirical evidence from tremendous previous research has proven that technology-enhanced language learning has presented plentiful authentic material as well as an opportunity to practice language skills and be more participative on the course. The use of multimedia technology, in this case, Computer-Mediated Language Learning, brought positive effects to language teaching in several aspects, as mentioned by Yang and Chen (2007) that facilitating communication, reducing anxiety, encouraging oral discussion, increasing students' motivation, and developing writing skill and thinking connection. In an almost similar way, Chen and Narayanan (2012) reported that research has indicated that the use of technology may stimulate positive attitudes, for example, an increased level of interest, motivation, interaction, and language production.

2.1.2 E-learning Platform

E-learning platforms are defined as the hardware and software environment designed to automate and manage development academic formation in teaching activity (Bri, Garcia, Coll, & Llorest, 2009). There are four basic and essential characteristics that any platform should have (Bates, 2005). The first is Interactivity that ensuring that the person using the platform is conscious of playing the leading role in his or her training. The second is Flexibility, defined as the set of functionalities that allow the e-learning system to be easily adapted into the organization wishing to implement it. This adaptation must address different levels, such as adaptability to the institution's structure. It must also allow for adaptation to the study plans of the institution wishing to implement the system and to the content and pedagogical styles of the organization.

The third characteristic is scalability, allowing the platform to function equally with a small or large number of users. The last is standardization or the capacity to use courses carried out by a third party. In this way, courses are available for the organization that has created them and for others that comply with the standard. The durability of courses is guaranteed, avoiding them becoming obsolete and last of all a follow-up of students' behavior throughout the course can be carried out. An essential part of e-learning platforms is that they must make remote access possible for both teachers and students at any given moment and from any place with a connection to the Internet or networks with TCP/IP (Transmission Control Protocol/Internet protocol). For this, a browser is used, allowing users to access information via standard browsers and using an http communication protocol (Hypertext Transfer Protocol).

Google Classroom, Edmodo, Moodle, Learnboost, Schoology and other platform are the example of e-learning plataforms. These platforms are the learning management system that allows the teachers to bring everyone together in one platform, which means that it is not only teacher and students who join the platform; instead, parents, coaches, and administrators could join in it. E-learning is rapidly become the preferred route to build and maintain an advance of performance capabilities through improving efficacy and effectiveness (Nagi, Anaraki, & Seusawuluk, 2007). This technology will potentially improve the learning process, not replace lecturers or teachers. For lecturers and students, the implications of e-learning are very broad (Neill, Singh, & Donoghue, 2004). Elearning can explain things that cannot be explained by the teacher verbally.

Based on a book written by Horton (2006) entitled e-learning by Design, Horton (2006) stated that e-learning has five types. First, Learner-Led aims to provide an effective learning experience for independent students. Other names of this type are self-directed e-learning. Learning materials presented in the form of a multimedia presentation, HTML, and other interactive media are packaged and delivered through internet networks or websites. Advantages of Learner-Led e-learning. Second, Instructor-Led E-Learning aims to convey learning as inconventional or face-to-face classes, so that the learning technology used in real-time. For example, video conferencing, audio, chat, bulletin boards, and so on.

Third, Facilitated E-Learning, combines the reliance on Web content found in learner led e-learning with thecollaborative facilities found in instructor-led e-learning (discussed later). It works well for learners who cannot conform to the

rigid schedule of classroom training but who want to augment learning through discussion with other learners as well as with a facilitator. Assignments are typically made by posting them to a class discussion forum, where learners can also “hand in” their completed homework. Independent learning materials and interactive and collaborative communication are shared through the website. Independent learning materials in the form of audio, video, text, and others. While interactive communication in the form of discussion forums, video conferencing, and chat.

Fourth, embedded e-learning. e-learning is designed to provide immediate assistance or right away. Aimed at people who want to master a certain skill or knowledge with the help of an application. In Indonesia, the example is the Ruangguru application. With this application, if you have difficulty while doing homework, you can be assisted by professional teachers directly. Here you do not need a lot of costs, time, and effort in doing homework because consultation can be done through chat and telephone. Fifth, E-Coaching Telementoring and E-Coaching are used to provide remote guidance and training. Here tools such as audio or video conferencing, chatting, instant messaging, or telephone are used to guide students. The following are some types of e-learning platforms:

Table 2.1: Tpes of e-learning platforms

No	Platform	Features
1	SEVIMA Edlink	<ul style="list-style-type: none"> • Students online attendance • Remote video conferencing • Online class schedule • Interactive quiz • Material sharing

		<ul style="list-style-type: none"> • Students attendance record
2	Moodle	<ul style="list-style-type: none"> • Dashboard • File management • Progress tracking • Multimedia integration • Peer assesment • Online feedback
3	Google Classroom	<ul style="list-style-type: none"> • Assignment • Grading • Originality report • Learning achieve
4	Edmodo	<ul style="list-style-type: none"> • Polling • Gradebook • File and links • Quiz • Library • Assignment • Award badges • Parent code
5	Schoology	<ul style="list-style-type: none"> • Recent activity • Course dashboard • Groups • Resources • Personal profile

Currently, e-learning is becoming very popular because it has more flexible access to accessing content and instructions anytime and anywhere (Means, Toyama, Murphy, Bakia, & Jones, 2009). The following were some of the advantages of E-learning as a learning medium: a) Increase a more realistic

learning experience for students who cannot attend a face to face classes, b) teachers can deliver materials, content, or instructions more easily and cost-effectively, c) teachers can handle more students and still maintain the quality of learning that is equivalent to traditional learning methods. If students learning outcomes, both online learning and face-to-face learning remain the same. Therefore, online learning can be applied because it is very cost-effective. In this case, where too few students were situated in a particular geographic location to warrant an on-site instructor (e.g., rural students, students in specialized courses).

E-learning is the learning method that enable students to take courses from home or anywhere through internet access, among other features such as peer-to-peer, clientserver, and web services (Arasteh, Pirahesh, & Zakeri, 2014; Draghici, Popescu, Fistis, & Borca, 2014; Mustea, Muresan, & Herman, 2014). While, Moravec, Stepanek, and Valenta (2015) mentioned that e-learning tools affect students learning outcomes. Baris and Tosun, (2013) mention that E-learning has a positive influence on students learning process in secondary schools. Moreover, through the e-learning platforms, users can access all kinds of information on their personal computer. There is also mobile e-learning (m-learning) which allow users to access all information via mobile devices (Zamfiroiu & Sborca, 2014). Hence, through E-learning students able to interact with their courses online through such technological platforms.

However, the success of an e-learning system depends on the understanding of certain antecedent factors that influence the students' acceptance and usage of such e-learning systems. E-Learning is the use of Information and Communication Technology (ICT) to deliver information for education, where

instructors and learners were separated by distance, time, or both to enhance the learner's learning experience and performance (Keller & Carlsson 2007; Tarhini, Teo, & Tarhini, 2016). Horton (2006) describes that as a group of instructions delivered via electronic media such as the internet, intranets, and extranets.

E-learning environments are one of the platforms that is quite cheap, thus reducing an institution's spending. The universities must decide during or before the implementation phase on the best approach to deliver education, such as online learning, face-to-face, or apply a blended approach. Other Web-based learning systems have long been developed for higher education to facilitate learning in a web-based learning setting; these include Moodle, Google Classroom, Schoology, Web Course Tools (WebCT), and Blackboard Learn (BBL).

Vaughan, Cleveland-Innes, and Garrison (2011) indicate that many benefits for e-learning technologies such as: less expensive to deliver, affordable and flexible, flexibility in case the availability- anytime anywhere. In other words, e-learning enables the student to access the materials from anywhere at any time, access to global resources and materials that meet students' level of knowledge and interest, self-pacing for slow or quick learners reduces stress and increases satisfaction and retention, E-learning allows more effective interaction between the learners and their instructors through the use of emails, discussion boards and chat room, learners can track their progress, learners can also learn through a variety of activities that apply to many different learning styles that learners have, it helps the learners develop knowledge of using the latest technologies and the

Internet, the e-learning could improve the quality of teaching and learning as it supports the face-to-face teaching approaches.

2.1.3 Usability in E-learning Platforms

An application is called usable if its functions can be carried out effectively, efficiently, and satisfactorily (Nielsen, 1993). Effectiveness relates to the success of the user in achieving the goal of using it a software. Efficiency is concerned with the smoothness of the user to achieve that goal. Satisfaction relates to the user's attitude of acceptance of the device soft. Usability testing is carried out to evaluate whether an application is appropriate with user needs or not. There are several usability testing techniques, for example Parlange, Marchigiani, and Bagnara (1999) measuring usability Multimedia-based e-learning can be done with a heuristic evaluation approach and used based evaluation in the form of a questionnaire.

Moreover, Hasim (2011) tested effectiveness and usability of mobile system analysis and design with system heuristic test (Hashim et al. 2011). In 2010 Diah tested the usability of educational games computer Roam using the observation method (Diah et al. 2010). Aelani did usability assessment of the Online Trustee system using the use Questionnaire with three main parameters, namely Usefulness, Satisfaction and Ease of use (Aelani et al. 2012).

Usability plays an important role in the quality of the LMSs and in the learning process. While usability is focused on the pragmatic aspects such as user's tasks and their accomplishment, user augments the subjective, focusing on

hedonic aspects, such as user's emotions and stimulations while interacting with a product (Hassenzahl & Tractinsky, 2006).

Rubin and Chisnell (2008) state that usability comes from the word usable which generally means it can be used well. Something can be said to be useful properly if the failure in its use can be eliminated or minimized and provides benefits and satisfaction to the user. Rubin and Chisnell (2008) in handbook of usability testing mentioned five elements which are the main elements of usability, namely:

- 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 certain websites or software applications.
- 3) Memorability, related to the user's ability to maintain their knowledge after a certain period time. This capability is directed by the relatively fixed layout of the interface design.
- 4) Errors, related to errors made by users during their interaction with certain websites or applications.
- 5) Satisfaction, relating to user satisfaction after using the website or application. Measurement of satisfaction also includes aspects of the benefits obtained from users.

In addition, the researcher also used usability parameters that focused on the visual design. Visual design is becoming one of the important factors that

influences users' affective experiences and their emotional bonds in online environments (Hassenzahl & Tractinsky, 2006).

2.1.4 Schoology in EFL Classroom

Schoology is a web-based education application that has various interesting features and can be accessed for free which allows teachers to give lessons to students digitally. Schoology is adopting Facebook as an interface and feature for ease of use (Manning, Brooks, Crotteau, & Diedrich, 2011). Schoology implements a Learning Management System (LMS). LMS is a management system that allows teachers to provide teaching materials, organize the learning process, and evaluate the learning process (Rahman, Aswani, Ghazali, & Ismail, 2010). Modernization is needed for future learning (Kettanurak, Ramamurthy & Haseman, 2001). Interactive multimedia such as Schoology can improve students' learning experiences. Interactive multimedia can improve trouble shooting performance in an electrical subject (Mayer, Richard, Dow, Gayle, & Sarah 2003).

Moreover, Sanchez-Garcia, Amat, Garcia, and Colomina (2018) state that Schoology is an e-learning platform that more friendly and practical, which tries to reinvent the technology applied so far in learning. Schoology as e-learning management tool it allows the teacher to provide teaching materials and to organize and evaluate the learning process. In addition, one of the advantage of Schoology is the possibility of knowing the individual needs of the students, in such a way that the teaching-learning process is more fitting to the students' needs. Schoology is a learning management system has been used by various institutions in many countries for online learning in blended learning. Based on

the study conducted by Muhtia, Suparno, and Sumardi (2018), the use of Schoology as LMS increased students' self-confidence and responsibility because they need to monitor the LMS for the material uploaded. Other than that, Schoology offers the following features:

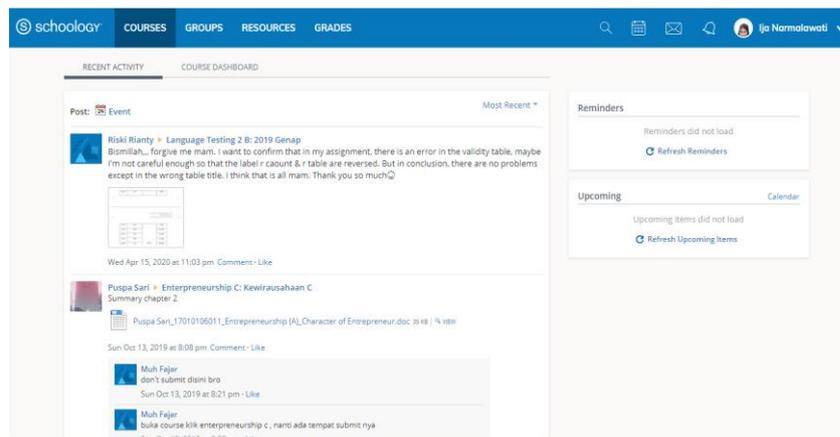


Figure 1: The first view of Schoology

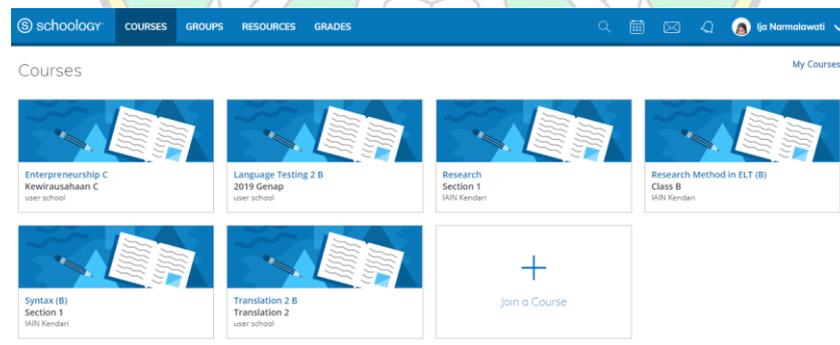


Figure 2: Courses in Schoology

2.1.5 Advantages and Disadvantages of Schoology

The use of Schoology can give some benefits such as discussion forum, no private information is required from students, students join classes by access code, teacher/instructor has full management control, teacher/instructor can track students progress, teacher/instructor can create the assignment, quiz, teachers can choose the form of quiz such as true/false, multiple-choice, ordering, fill in the

blank, short answer/essay question. Moreover, Schoology has some advantage and disadvantages as an e-learning platform. For the advantages such as students can participate in the discussion, teacher has a gradebook, similarity to a major social network, security is in place for student safely, provides efficient tools and resources for teachers to optimizes instruction, students can upload homework, assignment, take quizzes, receive a grade, feedback and suggestion from teacher/instructor, parents can be involved by viewing their child's work and grade, and keep in touch with teacher/instructor, the tool works with all browser type. Then, Schoology has some disadvantages like, if a student does not have access to a computer and the internet or a mobile device they would not able to use the tool, and the codes for students to log in Schoology were too long.

2.1.6 Google Classroom in EFL Classroom

Google Classroom is a kind of blending way of learning that was initiated in 2014. Since it is in 2014, Google Classroom has gained wide acceptance in K-12 education because of its free, ease-of-use, and unlimited capacity (Sibuea, 2018). Google Classroom is a free application platform from Google to support teaching and learning programs. Google Classroom has supported other Google applications, such as document processing (Google Docs, Google sheet, and Google presentation), Google Drive, YouTube, Google Calendar, and Google mail (Gmail). YouTube has a video-sharing site that has already pasted the link in the GC, Google form is a tool to create questionnaires and exams for synchronous, Google Calendar supports agenda and planning activities, and Gmail acts as the main entrance for all Google tools (Hidayat, Prasetyo, & Wantoro, 2019).

According to Sepyanda, Mahaputra, and Yamin (2018) Google Classroom is an application that has been developed by Google Inc. It is for educational space intended to find a way out of the difficulty of creating, delivering, and classifying any paperless assignments. This application can be used on a smartphone where both lecturers and students can download it freely and log in easily. The lecturer only needs to create a class and share the class code to the students to let them join with the class created. Through this application, students can submit their assignments easily, revise their assignments, and also check their scores given by the lecturer. According to Al-marroof and Al-emran (2018) Google Classroom takes into consideration the achievement of specific functions such as simplifying the students-teacher communication, and the ease of distributing and grading assignments. It provides the students with an opportunity to submit their work to be graded by their teachers online within the deadlines. Other than that, Schoology offers the following features:

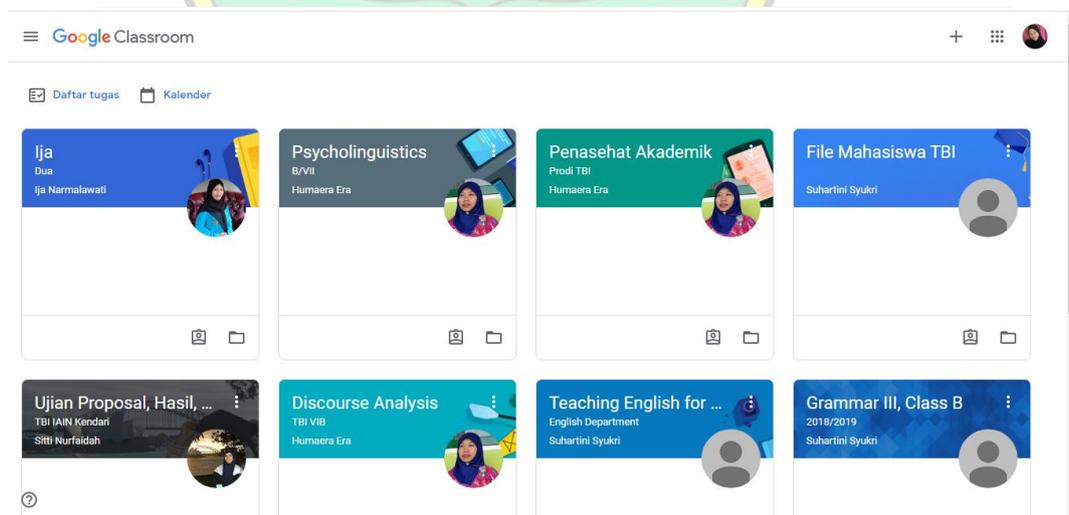


Figure3: The first view of Google Classroom is student's courses

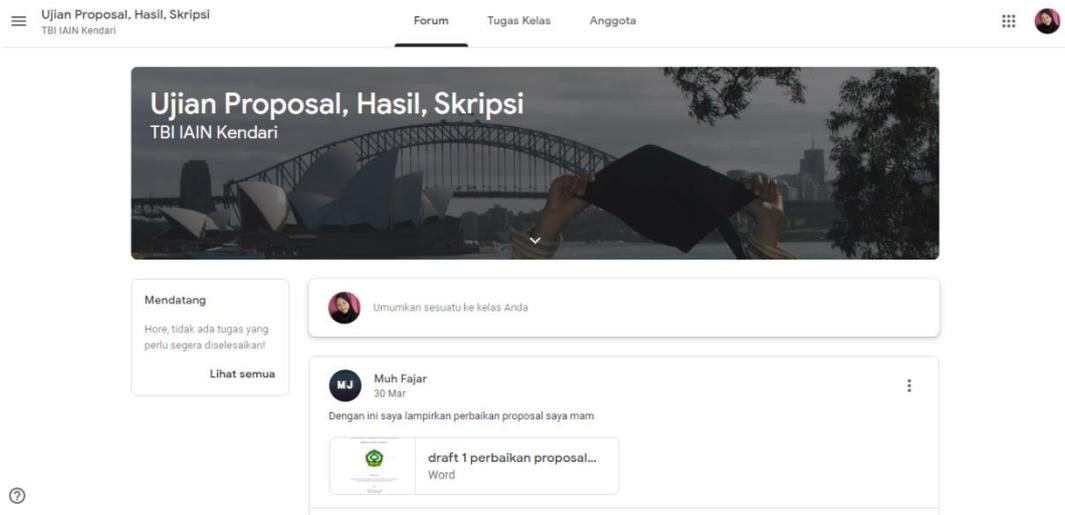


Figure 4: Students Classroom

2.1.7 Advantages and Disadvantages of Google Classroom

Moreover, Google Classroom has many advantages and disadvantages as an e-learning platform, for the advantages were Google Classroom copious facilities which were beneficial for its users. A few of them were phone-friendly, cost free, cell phone friendly, and time-saving. Google Classroom is easy to use. As Janzen (2014) states that the Google Classroom design deliberately simplifies the interface and options of the instruments used for delivering and supervising assignments and communication with the entire course or individuals is also simplified via announcements, emails, and 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 an internet connection because it designs to be fast response. 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.

Despite various benefits, Google Classroom also has some limitations. Some of them as mentioned by Pappas (2015) were limited integration options, too googlish, no automated updates, difficult learner sharing, and editing problems. It is difficult for the teacher to manage teaching materials and to set the deadline for assignments because Google Classroom is not synchronized with Google Calendar or any other calendar. Some of Google Classrooms' buttons were only familiar for Google users. It can make new users feeling confused or needing more time to deal with it. That is why Pappas (2015) states that Google Classroom is 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 with others without permission from the teacher. Learners can only edit assignment after they create and distribute to Google Classroom. They can keep and delete any part of the assignments. In spite of some drawbacks, it can be concluded 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, the learning process can be effective and efficient because students and teachers can access Google Classroom any time and anywhere in electronic devices with an internet networks.

2.2 Previous Studies

There are some previous researches that are relevant to this study. First, Nizal, Shaharane, Mohd, Syamimi, and Rodzi (2016) did researched on the

effectiveness of Google Classroom's active learning activities for data mining subjects under the decision sciences program. Technology Acceptance Model (TAM) has been employed to measure the effectiveness of the learning activities. The results indicated that the majority of students felt satisfied with Google Classroom's tools that were introduced in the class. Results of data analysis showed that all ratios were above averages. In particular, comparative performance is good in terms 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 analysis of the results of the questionnaire indicates that this study can be effective in understanding and evaluating teachers' and learners' perspective to ensure quality teaching and learning through Google Classroom. 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 were and instructed when using Google Classroom.

The third, study was conducted by Low (2017). This study revealed that Schoology can motivate students and has a positive effect on students' learning outcomes. Students agreed that Schoology is interesting, flexible, and increases students' value. Another study was conducted by Wibowo (2016). It was found that Schoology could be an effective way for teaching writing. It has proven that there is a significant different in students' achievement after and before tough by using Schoology.

The last study was conducted by Sicut (2015), this study revealed that Schoology is an effective means of teaching Business writing among college students when used as a supplement to the traditional method. Meanwhile, the researcher wants to conduct a study with the same media that is Schoology and Google Classroom. There were many variant variables used on previous studies and have a positive revealing that Schoology and Google Classroom was effective, the researcher uses a different variable that students' preferences regarding Schoology and Google Classroom. The researcher wants to investigate students' preferences related to the use of E-learning that focuses on Google Classroom and Schoology in EFL Classroom by using qualitative method.

