CHAPTER II

LITERATURE REVIEW

This chapter is a concern with some theories and ideas which are related to the study and support the writer's opinions. It consists of four sub-chapters such as Information Communication and Technology in English as A Foreign Language, The Previous study of Moodle Platform in English Learning Teaching, and Theoretical Frameworks.

2.1 Information Communication Technology in English as A Foreign Language

There seems to be a great variety of definitions of the term information, communication and technology. Partly, this might be due to the fact that Information Communication Technology (ICT) has developed and changed rapidly in recent years. Only about five years ago, nobody knew or talked about screen tablet computers, such as the iPad. Today, certain schools hand out iPads to all of their students and make them a part of teaching. This indicates how rapidly technology is changing and it illustrates how difficult it can be to provide a detailed definition of the term ICT.

It is generally believed that the use of Information Communication Technology (ICT) in educational practice can empower both teachers and learners, promote change and foster the development of 21st century skills" (Trucano, 2005, p. 5). Trucano stated that ICT use has the potential to transform teaching and learning processes from a more teacher-centered to a more student-centered approach and that this transformation will result in

increased learning gains for students. Over the past decade, several studies have been conducted to examine the effect of the integration of ICT on teaching and learning.

According to C. Adelman (2000), Information Communication Technology (ICT) is the acquisition, dissemination, processing, and storage of numerical, vocal, textual and pictorial information by a microelectronics-based combination of computing and telecommunications. ICT plays a dominant role in our present environment enabling humans to understand the increasingly technological changing society. ICT provides learners with understanding, skills and scientific knowledge needed for scientific research, fostering technological and economic growth in the society, where they live thus improving the standards of living (O. Minishi, E. Muni, O. Okumu P. Mutai, G. Mwangasha, H. Omolo & F. Munyeke, 2004).

ICT enables learners to acquire problem-solving and decision-making skills that provides ways of thinking and inquiry which helps in radical changes. With the rapid usage of ICT resources (i.e. internet), ICT based teaching-learning applications are considered an effective alternative to traditional teaching methods in that it affords students unlimited opportunities to demonstrate mastery of contents taught (T. L. Larkin, 2003).

However, within institutions of learning, new challenges have been generated, one of which is the teaching and learning of ICT Related Courses (ICTRC) like Computer Science, Software Engineering, Computer Education, Computer Engineering Etc. Lately, in some institutions, there has been a decline in academic achievement scores of students taking ICTRC and low

performance in ICTRC at both the qualifying examination (SSCE) and placement examination like University Matriculation Examination - UME (D. Aduda, 2003).

Some researchers confirm that there is also low enrolment for ICTRC, for students shun ICTRC as a discipline when given an option of courses to study in institutions. Often times the teacher is blamed for the students' lack of interest in a course and poor performance. This is not farfetched because the teaching approach that a teacher adopts is a factor that affects students' perceptive power and performance in a course of study; however, (H. R. Mills, 1991) and (A. O. Egwali and V. V. N. Akwukwuma, 2009) postulated availability of teaching resources, capital resources, students' attitude towards the teacher's teaching approach, the subject-matter and the teaching method as critical factors to the successful teaching and learning of ICTRC.

Four factors critical to the effective learning of ICTRC in the classrooms and laboratories were identified by (D. J. Kadijevick, 2002): respondents' attitude, software selection, a proper utilization direction, and the capabilities of ICT professional educators. There have been diverse research studies on students' effective learning of ICTRC. G. L. Reglin (1990) studied the effects of teaching ICTRC on a sample of 53 minority prospective teachers but focused on the issue of cooperativeness. A study conducted by (J., Moor, & R. Zazki, 2000) on a sample of 36 teachers centering on the use of ICT resources for ICT education based on knowledge acquisition.

Another study by E. Leuven, M. Indahl, H. Oosterbeek, and D. Webbink (2004) focused on the educational use of ICT resources and students' performance while a research study by J. K. Kibett, & N. J. Kathuri (2005) compared the effectiveness of teaching agricultural science using ICT based learning against the regular teaching approach.

About the role of ICT in EFL class, nowadays, students and teachers are strongly expected to use ICT in EFL class. In the future curriculum "the ability to use digital tools" is defined as a basic skill along with numeracy, the ability to express oneself orally, to read and write. ICT used by teachers has been under investigation for a long time for two basic reasons: to find the barriers in the way of successful integration of technology into the curriculum (Hew & Brush, 2007) and to take suitable actions in order to include courses of training teachers in modern technologies (Paraskeva et al., 2008). Here, knowledge of English can be a contributing factor to ease of technology use, perceived ease of use, positive attitudes, and even purchasing computers.

An effective way of ICT in English language teaching classrooms depends on many of factors. One of the important factors is the teachers' knowledge and skills in using ICT in class. According to Hew and Brush (2008), three types of knowledge and skill can create major barriers to ICT used by teachers, they are the lack of specific technical knowledge and skills (Snoeyink & Ertmer, 2001), and technology-supported pedagogical knowledge and skills (Hughes, 2003).

There are also some related studies dealing with ICT in EFL classes. Nikolova (2003) as cited in Hsieh (2009) states that numerous studies suggest

that computerized media and a multimedia environment can be helpful for learning foreign language vocabulary. However, the materials in the studies have mainly been commercial or teacher-produced. Student authoring of computer-based material designed for foreign language learning has been shown to enhance vocabulary learning. It has been asserted that online debate is an excellent medium for generating social construction of knowledge.

In line with this, Elia, (2007) states that ICT plays a part in fostering intercultural competence, which is a part of learning a second or foreign language. ICT provides a variety of different approaches as well as learning styles that reinforce the material delivered in other formats. Enjoyment is very much a part of effective learning, thereby captivating learners' interest, increasing personal discovery, generating enthusiasm and the desire to learn thereby instilling an interest from within to improve the learners' motivation.

Also, Jarvis (1998) believes that by integrating basic IT skills in the EFL classroom, we are developing language skills and equipping learners with technology skills. The applications of these technology skills go beyond the EFL. Here, in my opinion, the system is based on the concepts of social constructivism which tries to offer both educators and students a platform for online interaction and collaboration. Moodle, developed specifically for teaching, can provide a variety of different teaching activities for students, allow students to take full advantage of modern network technology to exchange ideas and obtain learning experience and build personal knowledge system.

2.2 Previous Study of Moodle Platform Used in English Language Teaching

Modular Object-Oriented Dynamic Learning Environments (MOODLE) is a type of free learning management system or a free software e-learning platform. In SMK Dewi Sartika, Moodle is used because it is easy to be used and contains a beneficial menu that can help teachers to give material, assessment or even quiz in the classroom. Moodle is also known as a Virtual learning environment. It is an open source course management system originally developed by Martin Dougiamas at Curtin University in Australia. Moodle as a learning management system is written in PHP and distributed under the GNU General Public License. Moodle was purposely developed to help educators to create online courses with a focus on interaction and collaborative construction of content and is in continual evolution. It provides all the necessary tools for educators to create a virtual classroom via the internet.

Moodle features include a list of participants (teacher and students), calendar with course schedules, a list of assignments, online quizzes, forums (where students can post comments and ask questions), glossaries of terms, and links to other web resources. With the customizable management features, Moodle is used to create private websites with online courses for educators and trainers to achieve learning goals. It is used by most of educational and training institutions around the world (more especially in the advanced countries) to provide an organized interface for e-learning or learning over the internet. It is for blended learning, distance teaching, flipped classroom, and

another e-learning project in schools, universities, workplaces, and other sectors.

Moodle development by Dogiamas (1998) is grounded by social constructionism (Papert & Harel, 1991) pedagogy which is essential that learners learn best by communicating with one another and creating their understanding through words, pictures or artifacts in a collaborative environment. It is emphasized that culture plays a large role in the cognitive development because learners construct an understanding of experience together, not alone. On the other hand, the pedagogical functions of Moodle learning environments are also governed by social constructivist or social cognitive learning framework by Vygotski.

According to social cognitive approach, learning is considered as cognitive and social activities (Vygotski, 1978; Brown, Collins & Duguid, 1989). Thus learners construct knowledge (learning experiences) based on their own mental and social activities. Ormrod (2004) argues that knowledge construction may occur as an independent activity of the individual or when individuals work together. Social constructionism is focused on the artifacts that are created or constructed through the social interaction of a group, while social constructivism is focused on an individual's learning (construction of knowledge and skills) that takes place because of their interactions in a group. It is argued that social constructionist and social.

Horton (2000) states that Moodle can be used in one of three scenarios namely:

- in a completely online environment without face-to-face interaction;

- in a hybrid course environment where the class frequently meets face-to-face, as well as conduct online meetings and activities; and finally
- In a face-to-face course environment with the provision of web-based support materials and activities.

As stated in the background above that Moodle is one of the multifunctional platforms that have so many advantages from the menu contained in that platform that can be seen in figure 1. According to Chesapeake and He (2004 in Elhawwa, Tazkiyatunnafs. 2017), the menu to implement the Moodle platform are Assignment, Discussion Boards (Forums), Live Chat, Content Delivery (Lesson), and Journal. From those all following menu, teachers are able to design material, assessment even evaluation of the study by using the Moodle platform. The most the student's purposes of the use of the Moodle platform were ‘download materials’, ‘news’ and ‘deliver assignments’, and the most used information materials are ‘texts’ and ‘slides’ (Elhawwa, Tazkiyatunnafs. 2017).

According to Chesapeake and He (2004), the menu to implement the Moodle platform is as follows. First is Assignments. Assignments allow the teacher to specify a task that requires students to prepare digital content (any format) and submit it by uploading it to the server. Typical assignments include essays, projects, reports and so on. This module includes grading facilities. It also allows teachers to collect work from students; to evaluate the student's work and provide feedback including grades, in a private mode. It allows students to upload assignment files and to submit their work via an online text.

Second is Discussion Boards (Forums). Forums can be structured in different ways and can include a peer rating of each posting. The postings can be viewed in a variety of formats and can include attachments. By subscribing to a forum, participants will receive copies of each new posting in their email. A teacher can impose subscription on everyone if they want to (Chesapeake & He, 2004).

The third is Live Chat. The Chat module allows participants to have a real-time synchronous discussion via the web. This is a useful way to get a different understanding of each other and the topic being discussed. The mode of using a chat room is quite different from the asynchronous forums. The Chat module contains a number of features for managing and reviewing chat discussions (Chesapeake & He, 2004).

Fourth is Content Delivery (Lesson). A lesson delivers content in an interesting and flexible way. It consists of a number of pages. Each page normally ends with a question and a number of possible answers. Depending on the student's choice of answer they either progress to the next page or are taken back to a previous page. Navigation through the lesson can be straightforward or complex, depending largely on the structure of the material being presented (Chesapeake & He, 2004).

Last is Journal. The teacher asks the student to reflect on a particular topic, and the student can edit and refine their answer over time. This answer is private and can only be seen by the teacher, who can offer feedback and a grade on each journal entry (Chesapeake & He, 2004).

The researcher chooses Moodle because of the previous study that stated by Elhawwa, Tazkiyatunnafs (2017) in her journal that Based on the implementation of Moodle curriculum, there are several constraints faced by the lecturers. First, in terms of listening, the Moodle platform actually is a good alternative to offer listening materials. Moodle has plenty of modules for language learning. Chatting room, a module of Moodle, can be embedded as a platform for conducting the listening class. Here, Moodle provides EFL learners alternatives to get access to English materials. Moodle has a function of management that can record learners' learning time, which can help EFL teachers to monitor and supervise students' devotion to learning. During the course of learning EFL, online learning is more preferred to the listening exercise in the classroom. The problem is that the materials provided by the Moodle are hard to follow. The conversation is too fast so that the learners cannot listen well to the content.

Second, in terms of speaking, Moodle actually provides the real experience of speaking. In blended learning of EFL, the speaking practice can be conducted in a regular classroom. The face-to-face communication can help learners understand others more easily. The teacher can also upload documents of relative background information, topic questions that are frequently used about the topic to the Moodle platform, which can help to arm the learners with more knowledge to use during talking. For those learners who are always too shy to open their mouth, the online chatting is another good choice. COVELL provides a free and powerful module developed to study foreign languages. It can be embedded in Moodle and works as a

speaking platform for students to chat in English with their classmates or native English speakers all over the world. Again, in this case, both lecturer and learners get problems, such as some utterances are hard to follow; the talking is too fast, and so on.

Third, in terms of reading comprehension, actually, in the blended learning of EFL courses, the intensive reading is advised to be conducted in the regular classrooms, since the learners can better understand the reading materials and the teachers can also offer instant instructions to them. For the extensive reading, Moodle provides diverse and rich materials for learners to choose. The problems constrain by the learners are (a) there are some unfamiliar words; (b) difficult to mind map the texts; and (c) no local authentic materials available.

Fourth, in terms of writing, Moodle is designed with some functions for writing practice. The functions of the forum, workshop, and wiki offer enough space for EFL learners to practice writing. A forum is a good place for students to have a brainstorming of topics, contents, and structures before starting writing. The function of the workshop allows both the instructors and students to read others' writings and evaluate them. This way of evaluation not only allows students to find out the problems in their own writing but also offer them chances to learn from others. The most prominent aspect of the course is to guide EFL learners to focus more on the process of writing rather than the result of writing. Here, the learners face a number of problems such as (1) Moodle do not provide students' handwriting product so that it is hard for the teachers to see the students' handwriting products; and (2) Moodle

does not provide writing score guidelines so that it is difficult for the teacher to score directly the students' writing product.

Consequently, it was decided to complement in-class instruction with multimedia. Multimedia are defined here as "the combination of various digital media types such as text, images, sound, and video, into an integrated multi-sensory interactive application" (Neo and Neo 2001: 1). Multimedia can "stimulate more than one sense at a time, and in so doing, may become more attention-getting and attention-holding" (Reeves 1998: 23). While multimedia provides instructional variation and often have a real-world connection that enhances learner motivation and provides a distinct entertainment value, scholars warn that they should be employed carefully to achieve an effective course design: "Careful application means that in combination with rich communication, an adequate level of interactivity, a high level of congruence of used information types, an adequate use of reference models, and an adequate quality of information representation is implemented (Hoogeveen 1995: 350).

2.3 Theoretical Framework

This study focuses on how English teacher and students in year twelve used the Moodle platform in English learning. This study aimed to investigate the learning activity using Moodle, the features of Moodle are used and how teacher and students used Moodle platform in English learning in SMK Dewi Sartika Jakarta.

Firstly, this present study uses classroom observational sheet as the instrument to crosscheck for data validation of teaching and learning activity

in SMK Dewi Sartika Jakarta. This observayional sheet is designed based on the original theory of ICT in ELT and The implementation of Moodle in English Subject (Chesapeake and He (2004) in Elhawwa, Tazkiyatunnafs. 2017) which explained that teaching and learning activities with ICT can be divided into four learning activity there are reading, listening, speaking, and writing in preparation of learning activity, in while learning activity, and post learning activity.

Hence, this study also provides English teacher and students' perspective in the use of Moodle in English learning activities through interview. The interview used 25 percent of total population in the classroom which is 10 students and one English teacher. Students' set of questions consist of four general questions about ICT in ELT and four specific questions about Moodle in EFL. Teacher's set of question consisting two general questions about ICT in ELT and four specific question about Moodle in EFL.