### **Chapter Two**

#### **Literature Review**

The topics that would be discussed in this chapter will be more focus on the review about related theories of the research. The topics such as definition of E-learning, types of E-learning, activities using E-learning, advantages and disadvantages of using E-learning as well as the challenges on using E-learning faced by students are included. The related study and the theoretical framework of the study will also be explained clearly in this chapter.

# **E-learning**

In the beginning of the third millennium, a new form of learning called E-learning is being introduced. According to Connolly and Stansfield (2006) E-learning has been through three eras. The first era, from 1994 to 1999, was marked by an inactive adoption of the Internet where traditional materials were simply re-planned to an online form. The second generation, from 2000 to 2003, was marked by the change to higher band-widths, wealthy running broadcast, raised sources, and the movement in producing the subject materials. The third generation, currently ongoing, is marked by the integration of better cooperation, social occasion, activity based learning, and intellective practices, through the tools such as e-portfolios, wikis, blogs, social bookmarking and networking, and online simulations. In addition, the third generation is gradually being affected by progress in mobile computing.

**Definition of E-learning.** Electronic learning (E-learning for short) has been variedly defined by researchers. It is interpreted in many different point of views, including distributed learning, online-distance learning, as well as blended learning (Maltz & Deblois, 2005). Bhattacharya and Sharma (2007) used other terms as the synonym of E-learning, which named Computer-based learning, online learning, or interval education. There has been debate within the experts about a common definition of the term E-learning which leads to the conclusion that there is no specific definition about E-learning. Selim (2007) defined E-learning as the delivery of content material through digital media, including internet, intranet, extranets, satellite broadcast, audio/video tape, interactive television, and CD-ROM. A wider explanation of Elearning is mentioned by Centre for Educational Research and Innovation (CERI) (2005) which stated that E-learning is a way to support and improve learning and technology as a complement to traditional classrooms, online learning or mixing the two methods with the use of information and communication technologies in varied processes of education. To sum up the definition of E-learning that has been stated above, it can be concluded that E-learning is a way that is used electronic media for educational purposes especially to enhance communication, participation, and collaboration in teaching and learning process.

**Types of E-learning.** There are varied ways in categorizing the types of E-learning. According to Algahtani (2011), E-learning is divided into two types, computer-based and the internet based E-learning.

*Computer-based learning (CBL).* CBL contains the use of hardware and software that available to be used in two ways: computer-managed instruction and computer-assisted learning. In computer-managed instruction, computers aid the teachers in instructional management without actually doing the teaching. However, in computer-assisted learning, computers are used by providing a support tool such as interactive software within the class or as a tool for self-learning outside the class.

*Internet-based learning (IBL).* IBL is an upgraded development of the computerbased learning (Almosa, 2011). It makes the content available on the internet, with the prepared links to related sources, for example e-mail services and references which can be applied by the students at any time and place as well as the availability or absence of teachers with the help of internet connection.

There are various categories of E-learning. Zeitoun (2008) categorized IBL in assistant mode, mixed or blended mode, fully online mode. The traditional method is needed in assistant mode. Mixed or blended mode offers a method when the teachers combine an offline learning which conducted in traditional and an online learning using the internet. The fully online mode, which is the most comprehensive development, uses the full network for learning (Zeitoun, 2008). Algahtani (2011) divided the fully online mode in context of the timing of interaction as two types, "synchronous" and "asynchronous". The synchronous type allows the students to discuss with the teachers and also among themselves via the internet at the same time with the use of tools such as the videoconference and chat rooms. This type, according to Almosa and Almubarak (2005), gives the benefit such as a direct feedback. The asynchronous type also allows the students to discuss with the teachers as well as among themselves over the internet, but it can happen at different times. It means that students and teachers can do the interaction at the same moment but later, with the use of tools such as thread discussion and emails (Almosa and Almubarak, 2005; Algahtani, 2011). This type is make students to be able to learn at a time that suits them, but unfortunately, students will not be able to receive instant feedbacks from teachers as well as fellow students (Almosa and Almubarak, 2005).

Mode in E-learning. It has been identified that, E-learning comes in three different mode, such as fully-online, mixed mode (also known as hybrid or blended learning), and web assisted (Anastasiades & Retalis, 2001). Learning materials, assignments, teaching and learning are all done online (Young, Hausler, & Sanders, 2008). In fully-online mode, there are no direct interaction between teacher and students. Everything is done fully-online through the use of internet and its related technologies. Furthermore, unlike learning in the face-to-face mode which is mostly teacher-driven where the teachers teach on the subject area of their expertise, in fully-online mode, learning is self-directed and flexible in nature. Fully-online learning also aims at satisfying the needs, interests, learning styles, abilities, and aspirations of students because it is self-directed (Buzzetto-More, 2013).

Hybrid or blended mode combines face-to-face meeting and interaction with online learning (Allen & Seaman, 2003). It also means integrating the online and face-toface formats to create a more effective learning experience (Brew, 2008). In this mode of E-learning, some aspects of the teaching and learning are done online, while some portions are done face-to-face. For example, teaching and presentation are done during the face-to-face meeting, while assignments and exam are done online. With blended learning, teachers can use online resources in their daily classroom activities to engage students and help them become more active and more effective students.

Web-assisted mode is the last mode of E-learning, and makes use of the synchronous tools, where course website and tools are used, in order to enhance teaching and learning. Web assisted learning is operated slightly same with fully-online class with the exception that it includes online discussions and interactions between the students and the instructors (Buzzetto-More, 2015). The main difference between fully online learning and web assisted learning is that web assisted is synchronous in nature and allows for live interaction, while fully online learning is asynchronous in nature and does not allow for live interaction. Furthermore, the difference between the web-assisted mode and blended mode is that, while both allow for interaction among participants and with instructors, hybrid learning has additional advantage for physical contact, however, in web-assisted there are no such direct meetings.

Among the types of E-learning, hybrid learning (mixed mode) is thought to be a better approach (Davis, 2000), as it combines elements of fully-online learning or web-assisted learning with the traditional classroom learning (Rubenstein, Ward & La Branche, 2003). Furthermore, in the blended learning, students are allowed to read some of the course materials online prior to the face-to-face meeting, which permits the students to have ideas of the topic to be discussed in class (Smart & Cappel, 2006). It can be concluded from the above discussion that regardless of the different understandings made of E-learning and its various types, one thing is common to all of the modes, which is internet and technological tools are used for teaching and learning, with limited or no face-to-face interaction.

### **E-learning Activities**

E-learning activities can be meaningful and entertaining at the same time to attract students' attention (Atomi, 2018). E-activities are also capable of boosting the teacherstudents engagement and aligning students' expectations. There are many E-learning activities that can apply by the teachers. Some of the popular activities that most of online students has experienced are following:

*Quizzes*. In general, quizzes are used to test students' knowledge as well as challenge their skills. They also aim to collect students' opinions or ideas. Besides, using quizzes is a good way to engage the students' attention. There are many types of question that you can use, for example, True/False, Multiple Choice, Fill in Blank, Sequence, Drag-n-Drop, and Rating Scale (Likert). You can also offer feedback in quizzes so that students know whether they are doing right or wrong. Feedback also gives them a clue of what to enhance for the future tests.

*Interactive Demos*. Hands-on demos, such as interactive software simulations, give the students chances to practice skills in their self-paced manner. Interactive demos are easy to create as long as the teachers have a professional screen casting tool. Use a suitable tool to create a series of steps to show how to solve a problem or follow a procedure and then let the students explore by themselves.

*Online Discussions*. If you need to build an effective online learning community for the E-learning Corporation, then an online discussion is a suitable activity. Online discussions allow the students, through discussing, to improve their discussion skills while learning from others. E-learning courses, online Word documents or Power Point presentations are some of the critical online environments that allow discussion between

the students. Those platforms allow practicing skills, sharing experiences, collecting knowledge, and getting feedback, etc. Online discussions can also be done by writing (e.g. online Word documents) or speaking (e.g. Skype video calls, video conferences). Both of them are useful when the audience needs to debate some viewpoints in their own perspective while discovering others'.

*E-learning Games.* An E-learning game is the best way to boost students 'knowledge while encouraging online collaboration and competitive spirit at the same. This type of activity can give the students better learning experiences. The students can learn something new while enjoying the games. This can not only enhance learning experience but drive stronger bonds with their virtual classmate when a group of them play games together. There are many tools allowing you to create impressive E-learning games such as, a screen recorder, video editor & E-learning authoring software.

## **Advantages of using E-learning**

E-learning is considered as the one of the best methods in education (Deepali, 2016). The adoption of E-learning in education, especially for higher educational institutions has gave several advantages. Below are the list of the advantages of E-learning in teaching and learning.

*Flexibility of time and place.* E-learning is so flexible when it comes to the context of time and place. According to Smedley (2010), the adoption of E-learning provides a flexibility of time and place in teaching learning process. The teachers and students can arrange the appointment time to do the E-learning based on their availability,

and the students also can freely choose the place wherever they want as long as it connected with internet access.

*Enhances relations.* E-learning is able to give opportunities for the students and teachers as well as among the students themselves to create a closer relation using the discussion forums. Through E-learning, the students can remove the barrier that might have the potential of disturbing participation including the anxiety of talking to other students. E-learning also motivates the students to exchange and respect their different perspectives. It also helps the students take an active character, work with their colleagues/instructors from a variety of locations. Wagner, Hassanein, & Head (2008) stated that E-learning creates extra prospects for interactivity between the students and teachers while delivering the learning contents.

*Saves cost.* Through E-learning, the students and teachers can reduce their travel cost to go to the school or college. It means that they do not have to come to the institution to conduct the teaching and learning process so that it will decrease their outcome.

*Develops students'' cross cultural understanding.* E-learning helps the students to be connected to other students all over the world through joining communities. Moreover, by joining communities students can develop their cross cultural understanding (Majid, 2017). He also argued that students can post or share a picture or a link to a community to broaden their understanding about other cultures (Majid, 2017).

*Increases students' satisfaction and decrease stress.* The use of E-learning allows self-pacing. For instance, E-learning allows each students to study at their own way and pace and learn in their own speed, whether it slow or quick. It therefore rises students' satisfaction and reduces their stress (Codone, 2001; Amer, 2007; Urdan and Weggen, 2000; Algahtani, 2011; Marc, 2002; Klein and Ware, 2003).

*Develops the standard of education.* E-learning has been valuable in Information and Communications Technology (ICT). E-learning develops the standard of education by providing universal academic sources and by contributing training to academics.

## **Challenges in E-learning**

E-learning is not only considered as beneficial but it also has some obstacles that students might face. Unavoidably, students might face challenges and problems in Elearning. There are numbers of research that has been investigating the disadvantages of E-learning. A cross cultural study conducted in United States and South Korea in 2005 (Kwun et al., 2005) found that American and Korean students are mostly disagree with the following statements "E-learning activity is more effective", "I prefer to learn through E-learning instead to face to face class", and "E-learning is the most suitable method of learning in this era". In addition, both American and Korean students agreed with following statements "Traditional class is more beneficial than online learning" and "Elearning is more troublesome to be conducted than traditional class". These results have been showed that E-learning has not been fully acknowledged by students. Some of the obstacles of E-learning are delivered below. *Computer literacy.* Although many students are generally techno-literate and able to manage computers well, lack of computer literacy is still become a major issue in conducting E-learning (Kumar, 2015). One of the limitations of E-learning in teaching learning process is that students should be computer literate. It means that it could be a challenge that makes students unable to learn from E-learning method if they do not know how to use computer and unfamiliar with the technology.

*Technical Issues.* Technical issue refers to development issue such as the bugs, the speed, the errors, functions and features not correctly working or does not work according to what academics require (Nurul and Martin, 2015). Many students are not provided with the high bandwidth or the strong internet connection that E-learning requires. Their weak monitors make it hard to follow the related course. Most of them live off campus and find it difficult to keep in tune with the technical requirements of the chosen course. Some of them might do not even own computers. The implementation of E-learning that requires an internet connection has become a serious problem for the students since not all students have an access to a speed internet connection. A slow or unstable internet connection can be frustrating for the students. A study by Annika (2008) found that the speed of the connection could be the limiting factor in E-learning and even the students' who go to the internet cafe find that sometimes the connection can be unpredictable and slow for required assignments. It can be concluded that low internet connection served as a challenge of the students when using E-learning (Annika, 2008).

*Low level of interactivity.* E-learning method may be less effective than the traditional method in context of immediate explanations, clarifications, and interpretations. One of the participants in a research that has been conducted by Annika (2008) revealed that the questions, or doubts, that arise when going through E-learning materials cannot be solved immediately as in traditional class due to the distance with the teachers. Means that the students may feel isolated or miss social interaction they get in a classroom setting and the possibility of getting direct feedback and a feeling of someone being there and the learning process is much easier if the students are in the same place with the teachers.

*Possibility of being distracted, cheated and plagiarizing.* Since E-learning requires an internet connection, so there is possibility for the students to open irrelevant and unnecessary websites that could distract focus in learning process. The finding by Mokhtar (2016) revealed that the limitation on the use of web-enhanced learning (Mix mode) learning is that the students cannot really focus to the activity in on line learning. Since an online learning requires the students to conduct their learning online, hence there is possibility of students to get distracted from the real focus (Mokhtar, 2016). Since tasks or assignments in E-learning are possibly done with the use of internet, there is also a possibility for the students to cheating and plagiarizing. The students may also tend to complete the given task by copy and paste from internet source. When this happen, it will be tough for the teachers to control or regulate those bad activities.

*Students' lack in speaking skills.* When considering about improvement in communication skills of students, E-learning as a method might have a negative effect. Becta (2008) found that many students preferred traditional teaching or face-to-face

method rather than the use of computers because the students may have a brilliant understanding in academics, but they may not possess the needed skills to deliver their acquired knowledge to others. It can be said that E-learning is give a negative result in students' performance in terms of speaking.

# The Use of E-learning in Language Education

E-learning has come to be more important in institutions of language education. The introduction and expansion of a range of e -Learning tools has been initiating several changes in language education institutions, particularly when it comes to their educational delivery and support processes (Dublin, 2003).

As stated earlier in the previous section, there are different modes of E-learning and also different ways of employing the technique in education. Algahtani, (2011), in his evaluation of E-learning effectiveness and experience in Saudi Arabia, discovered three distinct models of using e-learning in education including the "assistant, blended learning and online". The three ways of using E-learning technologies as discovered by Algahtani (2011) are described below. In assistant mode, E-learning is employed as an assistant in the traditional classroom by providing comparative material to the learners or students (Algahtani, 2011). In blended learning, Algahtani (2011) and Zeitoun (2008) explained that, in this way of using E-learning method and E-learning method in the classroom setting. The third one which is online learning is devoid of the traditional learning participation or classroom participation. In this form of usage, the teaching learning process is fully done online (Algahtani, 2011; Zeitoun, 2008). Zeitoun (2008) has gone further to explain that the online model is divided into the individual and collaborative learning, where the collaborative learning also consist of the synchronous and asynchronous learning (Zeitoun, 2008).

## **Review of Related Study**

A number of studies that investigated the perception of students towards Elearning have been conducted by some researchers. In recent years, there are many published studies that explore and analyze students' perception and expectation towards the use of electronic as a learning media, or E-learning (Wang, 2004). A study by Andersson (2007) identifies which of these factors are most salient for an E-learning course in Sri Lanka. Comments and opinions of 1887 students and staff were collected from 2004 to 2007. A quantitative approach is used to identify the most important factors followed by a qualitative analysis to explain why and how they are important. The study identified seven major challenges in the following areas: Students support, Flexibility, Teaching and Learning Activities, Access, Academic confidence, Localization and Attitudes.

Alkhalaf, Drew, and Alhussain (2012) are also conducted a research about the influence of E-learning on students in Saudi Arabia. They distributed 528 questionnaires (328 men and 200 women) to Qassim University students and King Abdul Aziz University students. The questionnaire is organized on the basis of IS measurement model. The results of their questionnaire indicate that 72% of students agree or strongly agree that the E-learning system raises awareness of the needs of the educational process. It was also found that 71% of students said that E-learning systems increased their productivity. It was also found that 60% of students were satisfied or very satisfied with the use of E-learning system. This study found out that the use of E-learning system is

reported to have a positive impact on the students learning process. Researchers also added that E-learning systems have improved students' ability to interpret information accurately. In addition, E-learning helps provide the information needed by the students in making decisions effectively and accurately to increase the productivity of the learning process.

According to the results of research on both studies, it can be summarized that Elearning has provided variant benefits and challenges in teaching and learning process toward the students at universities. This is in line with this study that aim to know about students' perception toward the benefit and challenges faced by the students while learn through e-Learning.

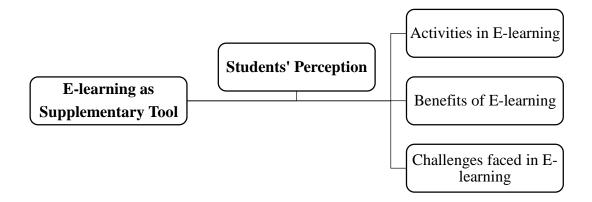
## **Conceptual Framework**

E-learning is being used in education field because of its usefulness. E-learning can be used in teaching and learning process either as a major tool, semi-major as its used in web-enhanced course with mix mode learning or as a supplementary tool as its used in web-enhanced classroom (as supplement to face-to-face). Abbad (2009) stated E-learning means any learning process that is applied electronically. According to Smedley (2010), he argued that the implementation of E-learning provides flexibility of time and place to the institutions as well as the teachers and students to deliver and receive the learning material. Additionally, Wagner et al (2008) stated that E-learning creates extra prospects for interactivity between the students and teachers while delivering the learning contents. Regardless of its advantages, several problems have been found on the implementation of E-learning. A study by Annika (2008) found that the speed of the connection could be the limiting factor in E-learning and even the students' who go to the internet cafe find that

sometimes the connection can be unpredictable and slow for required assignments. The finding by Mokhtar (2016) revealed that the limitation on the use of web-enhanced learning (Mix mode) learning is that the students cannot really focus to the activity in on line learning. Since an online learning requires the students to conduct their learning online, hence there is possibility of the students to get distracted from the real focus (Mokhtar, 2016). For this reason, it is important to know the perception of the students towards the use of E-learning as supplementary tool.

There are several points that are served as the main focus of this study; those are activities, benefits and challenges in E-learning. The first point that will be investigated in this study is the perception of the students towards the activities in E-learning. Investigating the activities that can be done in E-learning is importance since it determines how E-learning supports learning and teaching process. Secondly, this research will also investigate the perception of the students towards the advantages as well as challenge in E-learning.

The title of this research is students' Perception towards E-learning Activity or Elearning at ELED of a private University in Yogyakarta. From the title, the researcher is going to do a research based on two research questions: to know what is the students' perception towards E-learning. Therefore, the conceptual Framework is presented in the following figure.



*Figure. 1* Conceptual framework