CHAPTER II

THEORETICAL FRAMEWORK

A. Perception

1. Definition of Perception

Perception is psychological processes through the experience gained by the five senses, individuals can process responses into positive or negative perceptions. Obtaining responses is obtained through the stages of selection, interpretation, and reaction (Erin, & Maharani, 2018).

Otter (in Ghadirian, Ayub& Salehi (2017) described perception as a process of actions for acquiring information. That acquisition can stem from the environments to which students are exposed. Another definition from Nugroho (in Saifuddin, 2020) perception is a process that starts form the use of the five senses in receiving a stimulus, then it organized and interpreted so that it has an understanding of what is sensed.

Fieldman (1999) stated that perception is a constructive process by which we go beyond the stimuli that are presented to us and attempt to construct a meaningful situation. Whereas Morgan (1987) stated that perception refers to the way the work, sound, feel, tastes, or smell. In other works, perception can be defined as whatever is experienced by a person.

According to Rahmat (in Arifin, Fuady&Kuswarno, 2017) perception is about objects, events, or relationships obtained by inferring information experience interpreting messages. Whereas, according to Sugihartono (in Arifin, Fuady&Kuswarno, 2017) perception is the ability of the senses to translate stimulus or the process to translate stimulus into human senses. In

human perception, there is a difference in sensing something that is good or positive perception and negative perception that will affect the human action.

From the definition above, it can be concluded that perception arises based on experience and feeling of each individual. Perception is a response owned by each individual through the process of sensing.

2. **Types of Perceptions**

According to Irwanto in Shandi's thesis (2020), perception divide into two, those are positive and negative perceptions.

a) Positive perception is a perception that describes all knowledge and responses that continue with the effort to use it. This will be continued by activating or accepting and supporting the perceived object.

b) Negative perception is a perception that describes all knowledge and responses that are not in harmony with the object in perception. It will proceed with passivity or reject and oppose the perceived object.

Thus, it can be said that perception is both positive and the negative will always affect someone in doing something. Positive perception or negative perception all depends on how individuals describe all their knowledge about an object that is perceived.

3. **The Process of Perception**

Based on Walgito (in Arifin, Fuady&Kuswarno, 2017) the process of perception occurs in the following stages:

a) The first stage, which is known as the natural process or physical process, is the process of capturing a stimulus by the human senses.

b) The second stage, a stage known as a stimulus that is a physiological by receptors (sensory organs) through sensory nerves.

c) The third stage, which is known as the psychological process, is a process of arising individual awareness about the stimulus that received by receptor.

d) The fourth stage is the results obtained from the process of perception, which is in the form of responses and behaviour.

4. Factors that Affect Perception

Perception is determined by personal perception and situasional factors (Rahmat in Arifin, Fuady&Kuswarno, 2017). The explanation as follows:

a) Functional Factors: functional factors come from needs, experience, and other things that are included in personal factors.

b) Structural Factors: Structural factors originate from the nature of physical stimuli and the neurological effects they cause on the individual nervous system.

RestiyantiPrasetijo (in Arifin, Fuady&Kuswarno, 2017), states that the factors that influence perception can be grouped into two main factors:

1) Internal factors, including experience, needs, rating and expectations

2) External factors, including external appearance, the nature of the stimulus, and environmental situation

According to Toha (in Arifin, Fuady&Kuswarno, 2017), there are some factors that influence someone's perception as follows:

a) Internal Factors: feelings, attitudes, desires or hopes, attention (focus), learning process, physical state, psychiatric disorders, values and needs are also interests and motivation.

b) External Factors: family background, information obtained, knowledge, intensity, size, resistance, repetition and motion, new and familiar things, or alienation of an object. In addition, Davis (1989) stated that there are two external factors that influenced someone perception those are perceived usefulness and perceived ease of use. Perceived usefulness is defined as the degree to which a person believes that using a particular system would enhance his or her job performance. Whereas perceived ease of use refers to the degree to which a person believes that using a particular system would be free of effort.

B. E-Learning

1. The Definition of E-Learning

Electronic learning (E-learning for short) or online learning has been variedly defined by researchers, including the following based on Singh and Thurman (in Handbook on Facilitating Flexible Learning During Educational Disruption: The Chinese Experience in Maintaining Undisrupted Learning in COVID-19 Outbreak, 2020) Online learning is defined as a learning experience in a synchronous or asynchronous environment using electronic devices with internet access. In this environment, students can be anywhere (independent) to learn and interact with instructors and other students. According to Basori (in Pratiwi 2020) this learning model utilizes technology especially in helping lecturers and students especially in managing learning activities.

Another definition Mamattah (2016) states that E-learning is one of the forms of education that encompasses the use of the World Wide Web (www) to support instruction and to deliver course content and it is facilitated by the internet and technologies. E-learning is learning process which is achieved using ICT and a computer. On the other hand, e-learning is defined as "the use of new multimedia technologies and the internet to improve the quality of learning by facilitating access to resources and services, as well as remote exchange and collaboration" (EC, 2001).

From the definitions above, it can be concluded that E-Learning is a learning system that facilitated by technologies, multimedia and internet connection. Through this learning system, students get the opportunity to interact and learn with their instructor or their friends without in the same location or need to attend the class.

2. **Types of E-Learning**

a) **Depending on the use of the source or the delivery medium**

According to Anastasiades&Retalis in Mamattah (2016) Elearning comes in three different types: fully online, mixed mode (also known as hybrid or blended learning), and web assisted.

In fully online learning there are no physical contact between students and the instructors. Every teaching and learning process is done fully online through internet and technologies.

Blended learning is the type of E-learning that combined face-to-face meeting and online learning. For example, teaching and exams are done during the face-to-face meeting, while assignments and presentations are done online.

Web assisted where course website and tools are used to enhance teaching and learning. Web assisted learning is operated much in the same as the fully online class with the exception that it includes online discussions and interactions between the learners and the instructors. Web assisted learning purely by looking up on the Internet with the use of search engines or social media groups. Learning can be achieved through reading blogs, participating in online forums, threaded email discussions, social media or through online training platforms such as the code academy.

The main difference between fully online and web assisted learning is web assisted learning allows for live interaction, while fully online is learning that does not allows form live interaction. Furthermore, the difference between web assisted learning and blended learning is both allows for interaction among participants and with the instructors. Blended learning allows for physical contact, while web assisted there is no physical meeting. According to David in Mamattah (2016) among the types of E-Learning, blended learning is better because it combines fully online learning and web assisted learning with the traditional classroom meeting. From explanation before, it can conclude that various type of E-Learning, internet and technologies are used for teaching and learning process.

b) **Depending on the use of technological advancement and interactive capabilities of the learning system, E-learning can be divided into three different types (Guragain, 2016):**

1. E-learning systems with low interactive capabilities, which mainly consist of texts or multimedia materials. The examples of this type of

systems mainly consist of power point presentations, learning from an E-book or learning from watching videos or audio podcasts.

2. E-learning systems with moderate interactive capabilities. The examples of this type of systems mainly consist of quizzes with feedback, interactive resources, reflective learning, and learning by using simulators or demonstrations.

3. E-learning systems with high interactive capabilities either with student to student or student to teacher or even both. The examples of this type of system mainly consists or modern blended E-learning systems such as virtual classrooms, video conferencing, streaming medias, different online group games, online blogs, Wikipedia, or social media groups.

3. Forms of E-Learning

The types of E-learning availability, it is further classified into two forms, synchronous and asynchronous learning.

a) Synchronous learning

This form of learning is done in real-time with an instructor facilitating live discussions and lectures with students in the learning process. Participants log in at a set time and interact directly with the instructor and with the other class participants (Kalpana, 2010 in Mamattah, 2016). This form of learning is facilitated by electronic media that capable to handle many people in the different places at the same time. Based on Littlefield (2018) synchronous learning is more structured learning strategy, where the courses are scheduled at specific times and in live virtual classroom settings. In this way, students benefit from real-time interactions, hence get instant messaging and feedback when needed. Moore & Kearsley (in Sun,

& Chen, 2016) defined that synchronous learning refers to teaching and learning that happen at the same time, both of which are conducted through technologies such as Internet.

b) **Asynchronous Learning**

Asynchronous learning is teaching and learning that do not happen at the same time (Moore & Kearsley, 2011). In asynchronous learning, the students cannot get instant feedback and message. Additionally, the learning content is not provided in live classes, but rather on different learning management systems or forums (Littlefield, 2018). This form enable students from different time zone can be participate on the "class". Based on Kalpana (in Mamattah, 2016) this form of learning links participants to referenced materials instead of live, real time instructors. This form of learning is more flexible than synchronous learning. This flexibility gives participants a variety of options, allowing them to learn at their own pace and in their own time (Kocur & Kosc, 2009).

From the definition above, it can be concluded that both of synchronous and asynchronous is the form of learning that facilitated by using technologies and internet connection without physical presence. Furthermore, the students can choose the form of learning that suitable to them. Students who want to interact directly with instructors or other students, could choose synchronous learning. The students who do not need to interact directly but only want to acquire the knowledge. They can choose asynchronous learning.

4. **The Advantages and Disadvantages of Implementation of E-Learning**

There are some advantages of implementation of E-Learning based on Balaji, Al-Mahri, &Malathi (2016):

1) Flexible learning it means that every student can choose the right time and location to study using the E-learning method.

2) Effective knowledge and competence: Students can have access to large amounts of knowledge easily.

3) Cost-effective: students are not required to travel to gain knowledge.

4) Remove barriers to communication between students themselves and their instructors especially those who are afraid of talking to other strangers.

5) Students can adjust their learning needs based on their skills and background.

6) Self-pacing: students can control their learning process depending on the speed of their own learning.

Although there are many advantages, the implementation of e-learning also has many disadvantages. There are the disadvantages based on Balaji, Al-Mahri, & Malathi (2016):

1) Lack of interaction between lectures and students or even between students themselves.

2) Low level of learning efficiency. Interpretation and clarification are more effective and easier in face-to-face learning.

3) Untrusted results of E-learning assessment. Difficult to control cheating during the assessment with potentials of a high chance of plagiarism that can be done by the system.

4) E-learning methods are not suitable for all academic fields.

5) Waste of time and money: due to extensive use of certain websites.

6) Low level of learner's communication skills. Learners gain much knowledge through E-learning, but it might be difficult to transfer the knowledge to other learners due to lack of such skills.

7) Not all internet facilities are available. With some disadvantages that have been mentioned, the lack of ELearning can be overcome by using E-Learning only as a support system not a replacement system in teaching and learning process.

C. Previous Studies

There are some similar studies have been conducted that related to this research. The first from (Mamattah, 2016) on his research entitled "Students' Perceptions of E-Learning". This study focuses on discovering students' opinions of e-learning. The participants of this research involved students at Ho Polytechnic, Ghana. The results of the research show that students think e-learning is an innovative idea and must be encouraged. E-learning is useful because people being able to study from anywhere in the world without necessarily relocating. Also, respondents prefer combination of online learning and face-to-face learning.

The second from (Cakrawati, 2017) on her research entitled "Students' Perceptions on The Use of Online Learning Platforms in EFL Classroom". The study focuses on students' perceptions about the use of online learning platforms in English as a Foreign Language Class (EFL). This study involved 40 participants consisting of middle and high school students in Bandung, West Java. The results of this study indicate that most participants revealed that the use of Edmodo or Quipper in teaching and learning English is effective and efficient

in terms of time. Although slow internet speed is considered one of the difficulties in using Edmodo and Quipper, most participants agree that online learning platforms can help them practice language skills, acquire new vocabulary, and increase their understanding of the content of the lessons.

The third from R. Rusli, Abdul Rahman, Helmi Abdullah (2020) on their study entitled "Student Perception Data on Online Learning using Heutagogy Approach in the Faculty of Mathematics and Natural Sciences of Universitas Negeri Makassar, Indonesia". The data collected by questionnaire to the students of FMIPA UNM who were active in academic information systems on Academic Year 2019. The results showed that online learning can increase creativity, fun, willingness/motivation, and ability in the learning process. They can study anywhere and anytime without any limitations on space and time.