

CHAPTER II

THEORETICAL REVIEW

A. Technology in Teaching

1. Definition of Technology

Technology is a tool that can change the nature of learning. No one accepts definition of what technology is. The term is used very loosely to describe a variety of ways computers are integrated into the learning process. Simply, technology is a word that is used to describe different things to different people. Technology is a term that is used by many to describe, study, and evaluate the various ways. Computers are integrated into education, both within and beyond of classrooms. The reality is that technology is a complex, dynamic, and ever-changing part of our society and world today. It is important to have an informed approach towards its role within our own sphere of influence. Instruction is the way we teach and technology is what we use to help us to teach. Instruction can take place with or without technology. However, technology can be used to facilitate instruction. Technology can be anything that is used as a means to help us, but it does not necessarily have to be electronic. A good definition of technology should include “the systematic application of scientific and other organized knowledge to practical tasks”. Technology is designed to make a person's life easier (Moursund & Bielefeldt, 1999).

Many experts expressed his/her opinion about technology, especially in teaching.

- a. Commission on Instructional Technology, (1970). Technology is a systematic way of designing, implementing, and evaluating the total process of learning and teaching in terms of specific objectives, based on research in human learning and communication and employing a combination of human and non-human resources to bring about more effective instruction.
- b. Barbara Seels and Rita Richey, (1994). Technology is the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning.
- c. Tom Cutchall, (1999). Technology in teaching is the research in and application of behavioral science and learning theories and the use of a systems approach to analyze, design, develop, implement, evaluate and manage the use of technology to assist in the solving of learning or performance problems.
- d. Association for Educational Communications and Technology, (2004). Technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources.

In addition, technology is the research in and application of knowledge, learning theories or practices and the use of a systems approach to analyze, design, develop, implement, evaluate, utilize and manage the use of

technology to assist in the solving of teaching and learning or performance problems.

2. Kinds of Technology Used in Teaching English

There are some technologies used in teaching English. They are audio, edmodo, e-learning, facebook, power point and video.

a. Audio

Audio is kind of media which have functioned and used as media that can be hear. For example: Radio, tape recorder, sound speaker, etc. (<http://YourDictionary.com>).



b. Edmodo

Edmodo provides teachers and students a secure place to connect and collaborate, share content and educational applications, and access homework, grades, class discussions and notifications. The goal is to help educators harness the power of social media to customize the classroom for each and every learner. (VirtualLearningEnvironment/Edmodo.com).



c. E-learning

The delivery of a learning, training or education program by electronic means. E-learning involves the use of a computer or electronic device (e.g. a mobile phone) in some way to provide training, educational or learning materials. (<http://ElearningDefinitionandExplanation.com>)



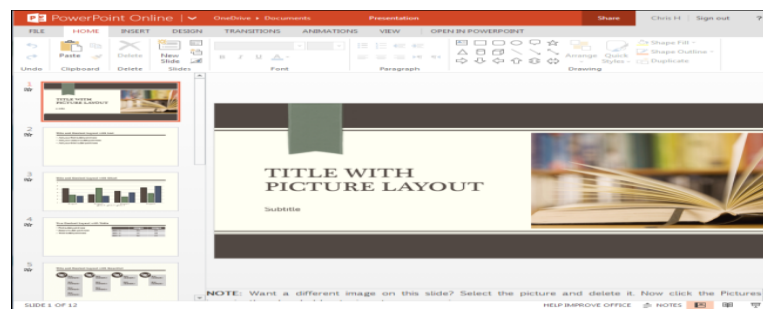
d. Facebook

Facebook is a free social networking site originally designed for connecting with friends and family to share everyday life experiences by answering a question ‘What’s on your mind?’. Later, educators saw benefits for using Facebook to connect students, tutors and teachers within learning communities, for sharing and discovering content and for communication and collaboration. (<http://SocialMediaforTeachingandLearning.com>)



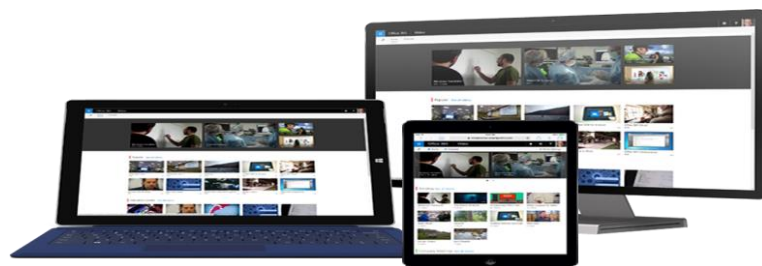
e. Power Point

Power Point is computer software created by Microsoft which allows the user to create slides with recordings, narrations, transitions and other features in order to present information. (<http://YourDictionary.com>).



f. Video

Video is a medium that engages viewers from multiple senses, sights and sounds, and can generate excitement about a subject or concept. (<http://YourDictionary.com>).



3. The Role of Technology in Teaching English

The role of technology in teaching is very important. Yang, S. and Chen, y. (2007). asserted that technology facilitates professional learning through bridging the distance between school and the community. The use of technology in teaching offers learners more opportunities to be in contact with current events all over the world. They argued that technology supports cooperative learning through using collaboration in problem solving and through permitting learning to occur meaningful contexts. Technology helps in transferring the outside world to the classroom.

Terry (1999) mentioned that technology in teaching is very important and the technology has become a powerful vehicle in promoting learning, teaching and communications. Technology is a powerful tool with enormous potential for paving high-speed highways from outdated educational systems to systems capable of providing learning opportunities for all, to better serve the needs of twenty-first century work, communications, learning, and life.

In addition, the role of technology in teaching is very important. Technology helps in transferring within and beyond classrooms. Technology has become powerful vehicle and powerful tool in teaching and learning.

4. Advantages of Technology in Teaching English

There are some advantages of technology in teaching English:

- a. The use of technology can make learning easy and interesting.

- b. The use of technology offers many opportunities for language learners to learn the language by their own using internet.
- c. The use of technology, with internet, provides language learners with many opportunities of practicing and using English.
- d. The use of technology also helps the learners to assess and test. Themselves and get feedback.
- e. The use of technology makes language-learning learner centered.
- f. The use of technology provides opportunities for learners to work. Both on their own and as part of a group to find their own learning needs and to use the English language in an authentic situation.
- g. The use of technology in teaching can motivate learners because the learning environment is more enjoyable.
- h. The use of technology in classroom can help learners to understand the complex concepts more easily.
- i. The use of technology in classroom can help learners to learn at their own pace.
- j. The use of technology in teaching can provide a multisensory learning environment.
- k. The use of technology in teaching can help learners to learn independently through self-discovery.
- l. The use of technology can increase learners' participation in activities in the classroom.

- m. The use of technology can increase interaction in the classroom and provide more active role in learning.
- n. The use of technology provides much needed exposure of target language in various forms for the learners.
- o. The use of technology helps teachers to promote a constructive class environment.

With such advantages and benefits for teachers and learners, it is not surprising that the demand for using technology to support teaching, learning and testing processes in classroom is becoming more serious. Thus integrating technology in classroom can help in bringing changes to the traditional teaching and learning environment in order to create what is termed as more authentic and dynamic learning environment (Rodinadze, and Zarbazoia, 2012).

B. Perception Towards Technology

1. Definition of Perception

Every day in human life, people perceive everything what they see, touch, smell and feel. While they perceive something, any information is received and then processed by the sensory nervous system. So perception is a process of biological (Sekuler and Blake, 1994).

Many experts explained the definition of perception, such as Hadis and Nurhayati (2010). They said that perception is an immediate experience to the

world, such as experience of seeing, hearing, feeling, smelling or testing. Other experts, Sekuler and Blake (1994), said that perception is the receiving and processing of sensory information in order to hear, smell, taste, see or feel any object in the world. Other definition, perception is the interpretation, integration, sorting out, and analysis of stimuli by the sense organs (Feldman, 1992).

Wagenaar and friends said in their book Atkinson & Hilgard's Introduction to Psychology: "Perception is constructing an internal model of the world based on bottom-up sensory processes combined with top-down real-world knowledge." (Wagenaar and friends, 2009).

Gazzaniga and Heatherton (2003) said that perception refers to the brain do further processing of sensory signals that end in a stimuli internal representation. For example, specialized neurons in the eyes detect a green light emits photons, and then the brain receive signals.

In other definition, Hall (1983) defined perception as awareness of an organism of objects and events in the environment, brought about by the organism's sense organs stimulation. In other hand, Crider and friends (1983) in their book described perception as the process of brain selecting, organizing and interpreting to gather information about the environment.

Based on the description above, perception is a common process of human brain in everyday (biological process). When the people see, touch,

smell, feel and taste, they get information. The information is sent to the brain and then processed by its sense organs.

2. Kinds of Perception

There are some kinds of perception like stimulus, perceptual screens, cognition and Mental Files.

a. Stimulus

A stimulus is physical information we receive through our senses. Advertising stimuli can appear in a variety of forms: a window display at a local department store, the brightly colored labels on cans of Campbell's tomato soup, or even the red price tag on a pair of skis at the Sport Chalet. These objects are all physical in nature; they stimulate our senses (with varying degrees of intensity) in ways that can be measure.

b. Perceptual Screens

The second key element in perception is the personalized way of sensing and interpreting the stimulus data. Before any data can be perceive, they must first penetrate a set of perceptual screens, the subconscious filters that shield us from unwanted messages. There are two types of screens, physiological and psychological.

The physiological screens comprise the five senses: sight, hearing, touch, taste, and smell. They detect the incoming data and measure the

dimension and intensity of the physical stimuli. We limited not only by the physical capacity of our senses but also by our feelings and interests. Each consumer uses psychological screens to evaluate, filter, and personalize information according to subjective emotional standards. Advertisers face a major problem dealing with consumers' perceptual screens. As over communicated consumers, we unconsciously screen out or modify many of the sensations that bombard us, rejecting those that conflict with our experiences, needs, desires, attitudes, and beliefs. We simply focus on some things and ignore others. This called selective perception.

c. Cognition

The third key element in perception is cognition: comprehending the stimulus. Once we detect the stimulus and allow it through our perceptual screens, we can comprehend and accept it. Now perception has occurred, and the stimulus reaches the consumer's reality zone. Nevertheless, each of us has his or her own reality.

d. Mental Files

The mind is like a memory bank, and the stored memories in our mind called the mental (or perceptual) files. Just as stimuli bombard our senses, information crowds our mental files in today's over communicative society. To cope with the complexity of stimuli such as advertising, we rank products and other data in our files by importance, price, quality, features,

or a host of other descriptors. Consumers can rarely hold more than seven brand names in any one file-more often only one or two.

3. Lecturers' Perception Towards Technology

Computers have changed the way that many teachers or lecturers approach teaching. Teachers or lecturers are now able to use computers to demonstrate dynamic processes in real time such as providing students with simulations of how gases behave at different temperatures in science classes (Hurwitz, 1999) or showing videos and movie clips of significant historical events, all of which allow the teacher or lecturer to provoke deeper thought processes. Several older digital natives who have used computers, both within and beyond classroom, over the past two decades would recognize, as well as welcome, the necessity for an informal and critical approach to the use of computers in education (Loveless, 1999). Despite the enormous headway that computer technology has made, there is still a common misconception that computers and the Internet are the only useful technologies for the field of education (Lyle, 2009). However, education technology is actually spread throughout a broad spectrum of different technologies, not limited to those used in “design, making, problem-solving, technological systems, resources and materials, criteria and constraints, processes, controls, optimization and trade-offs, invention, and many other aspects dealing with human innovation” (Lyle, 2009).

There are a lot of researches on the views of teacher's about technology use in the classroom. According to Cope and Ward (2002), experienced teachers who had little or no professional development in the use of technology in the classroom were less likely to use it in the classroom and were less likely to see the benefit of technology usage in the classroom. Royer (2002) found that the more teachers were involved in actually setting up classroom technology the more likely they were to use that technology for instruction. This is why it is important for teachers to receive technology skill training. This is not to say that the advancement of technology use in the classroom changes the role of the teacher. Wang (2002) found that teachers saw their roles as being more teacher centered and less student centered in classrooms that did not have computers. However, teachers did not think that they would teach differently or that their roles would be different in a classroom with computers. Savery (2002) noticed that faculty felt comfortable using technology such as email, overhead projectors, and videos. However, faculty felt that they used email more often for instruction rather than for the students demonstrating a difference in the perceptions of the use of email (Savery, 2002). Wilson, Notar, and Yunker (2003) found that on the average, teachers used the computers 1.9 hrs. per week mainly to enter grades in elementary schools. Students spent even less time on the computers-only 1.5 hrs. per week. A study in Taiwan demonstrated a strong relationship between teacher training and the integration of technology into the curriculum. Hsu (2010) discovered that the better trained the teacher was in the use of technology, the more likely he or she was to

successfully integrate it into classroom instruction. In a study of teacher perception of the values are needed to be an “exemplary” user of technology in the classroom, it was found that teachers believe that a person has to be confident in his or her ability to use technology and committed to its use (Ertmer, Ottenbreit-Leftwich, & York, 2007).

In addition, Warschauer (2007) found that schools with a higher socioeconomic status integrated technology much more readily because teachers are confident that students have better access to computers and/or technology at home and therefore can complete homework in which technology is necessary for the completion. Schools with a lower socioeconomic status can compensate somewhat for this difference by providing laptops for home use, keeping the computer lab open after school, or using mobile labs more efficiently. Warschauer also stated that boys appear to use computers for gaming whereas girls tend to use it for networking and communication. Schools need to develop better strategies for incorporating technology into classroom instruction by using this information.

When middle school and secondary school teachers used web-based learning tools as part of their lessons, they perceived that their students were more successful as it appeared to significantly engage the students (Kay, Knaack, & Petrarca, 2009). Furthermore, the students also scored higher on tests. This study also found that teachers felt the web-based learning tools were easy for the students to use. The use of technology in the classroom allows students to engage in a more active way of thinking, literally a hands-on learning

experience in which they are able to practice executing skills that would be impossible with a traditional book lesson.

4. Influencing Factors of Perception

Several factors may influence people how to process the perceptual inputs and transform them into outputs. There are three broad categories: characteristics of perceiver, characteristics of target and characteristics of the situation.

a. Characteristics of Perceiver

A person needs and motives, self-concept, past and new experience, emotional state, expectation and personality aspects strongly influence the perceptual process.

1) Needs and Motives

Unsatisfied needs or motives stimulate individuals and may exert a strong influence on their perception. For examples, two groups of subjects—One group who is deprived of food for about 24 hours and the other group, which had food enough, were shown the blurred pictures and asked to explain the contents. The first group perceived the blurred image as food far more frequently than the other group. People needs and motives thus play a big part in the perceptual process.

2) Self-Concept

It refers how a person perceives himself/herself, which in turn influence his or her perception of the world around them. If a person perceives himself as incompetent, then he perceives the world as threatening. On the other hand, if he feels himself as confident and capable, he will perceive everything around as friendly.

3) Attitudes

The preferences and livingness affects ones perception. A lecturer, who likes bigger class, feels comfortable in a lecture session that has more than hundred students. Another lecturer, who likes small class with many questions, may not be so comfortable in such big classes.

4) Interests

The interests of people also influence individual's focus of attention. A plastic surgeon will more likely to notice an imperfect nose than a plumber. Because of our individual interests differ considerably, what one person notices in a situation, can differ from what other person perceives.

5) Experiences

Individuals' experiences also influence in molding ones perception. For example if one has had problem responding to examination questions in the past, he or she will tend to perceive even simple, straightforward examination question as tricky. Likewise, if a couple of friends betrayed

a person, he or she would never venture to cultivate new friendship in future.

6) Psychological or Emotional State

If an individual is depressed, he or she is likely to perceive the same situation differently from the other person who is at the extreme level of excitement or happiness. If a person has been scared of seeing a snake in the garden, she is likely to perceive a rope under the bed as a snake. Thus, the emotional and psychological states of an individual also influence the perceptual process and the different types of interpretation of the situation.

7) Expectation

Expectations can also distort the perceptual process. If a person expects police officers to be more authoritative and dictatorial, he or she may perceive them as if they are rough and tough regardless of the Police Officers actual traits.

8) New Experience

If a person experiences something new, that is more likely to grab attention than the objects or events that has been experienced before. For example, a person is more likely to notice the operations along an assembly line if this is first time that person has seen an assembly line. In 1970's women police officers are highly visible because traditionally Police Officers positions were predominantly held by males.

9) Personality Characteristics

There is a strong relationship between personality factors and perception. For example, secure people tend to perceive others as warm supportive than those, who are more cold and indifferent. Similarly, self-accepting persons perceive others as lining and accepting them. Those who are not self-accepting tend to distrust others. Insecure, thoughtless or non-self-accepting persons are less likely to perceive themselves and those around them accurately. In all probabilities, they are likely to distort, misinterpret or in other ways defensively perceive the situation.

b. Characteristics of Target

The ways things are organized around people are greatly influencing the perceptual process. Some of the typical characteristics include bright color, noise; novel objects, bigger unusual size, moving objects, status, appearance, contrast, intensity, repetition etc. catch people attention. For example, an unusual noise raised by a person, a strong beam of light suddenly flashed, a very handsome, attractive person among a group of clumsy people, a red light against the black background, an unusually obese person amidst a group of slim people etc.

1) Organization of Target

People tend to organize the various parts of elements in the environment as a meaningful whole. Such organizing activity is a cognitive process and those are based on Gestalt Principles. The following are the four

Gestalt Principles – Figure and Ground, Proximity, Similarity, Closure, Continuation.

2) Figure and Ground

What a person observes is dependent on how a central figure is being separated from its background. This implies that the perceived object, person, or event stands out distinct from its background and occupies the cognitive space of the individual. In a dance program, the spectators' tend to perceive the dance performance against the background music, backdrop setup etc. The perceiver thus tends to organize only the information that stands out in the environment that seems to be significant to the individual.

3) Proximity

People tend to perceive things, which are nearer to each other, as together as group rather than separately. If four or five members are standing together, someone tends to assume that they are belonging to same group rather than as separately. Because of physical proximity, people often put together objects or events as one group even though they are unrelated. Employees in a particular section are seen as group.

4) Similarity

Persons, objects or events that are similar to each other also tend to be grouped together. This organizing mechanism helps people to deal with information in an efficiently way rather than getting bogged down and confused with too many details. For examples, if someone happens to see

a group of foreign nationals at an International seminar, Indians grouped as one group, British as another, Americans yet another based on the similarity of nationalities.

5) Closure

In many situations, the information what someone intends to get may not be fully complete in all respects. However, we tend to fill up the gaps in the missing parts and making it as meaningful whole. Such mental process of filling up the missing element called as closure. For example, while giving promotions to the staff members, the manager will try to get full information to make an effective decision. In absence of getting complete information, manager tries to make meaningful assumptions that based on that suitable decision will be made.

c. Characteristics of the Situation

The context at which the incident is occurring can influence the perceptual process. The physical, social, organizational settings, time etc. can influence people how interpret the stimuli. For example, late coming of subordinate at birthday party may be ignored but treated him as an important guest by the manager, but at the same time, the same person's late coming to an important official meeting will be viewed as seriously and manager may issue a memo seeking his explanation. Thus, the location of an event, the social context in which takes place, timing and the roles played by the actors play a significant part in how people interpret the situation.