

CHAPTER 2

LITERATURE REVIEW

This chapter presents a brief explanation of some theories that support this study. The theories relate to technology in learning English, learning media, and vocabulary mastery.

2.1 Theoretical Framework

2.1.1 Technology

1) Definition of Technology

Technology is a tool created by humans to facilitate human existence. Then technology information is all things that help humans in creating, changing, storing, communicating or disseminating information. Technology also brings fast computing and communications together to spread data, voice, and video. In today's era, technology is not just about computers, but also consists of various kinds of devices and social web that used to make a connection and relationships there. This is happened since human lives are embedded with mobile app technology.

2) Technology Education

Technology education, also known as tech or technical education, refers to the process of gaining skills and knowledge regarding to the use, understanding, and current development of technology. It encompasses a wide range of topics and activities aimed at enabling individuals to effectively engage in and contribute to technological advancement in various fields. Technology education includes both theoretical and practical aspects, with an emphasis on applying scientific and mathematical principles to solve real-world problems. It can be provided at various levels of education, such as primary education, secondary education, higher education, program of vocational training, and program of technical training.

In the future, education will be flexible, transparent, and accessible to all those who need it regardless of gender, age, or previous educational background (Bishop G., 1989). Then Tony Bates (1995) states that technology can improve

quality and reach when used properly for education and training, and has a very important meaning for economic prosperity.

3) Technology in Learning English

In this era of globalization, technology become an important element in assisting the learning process, especially English language learning. Language learning really needs the help of today's technology. In addition to make it easier, technology also has the benefit of making learning activities more enjoyable. According to Ahmadi (2017), the right method used by teachers in the classroom is important factor for facilitating the process of language learning. In addition, Susikaran (2012) stated that multimedia-based teaching enriches the learning contents and uses the best use of classroom times that is focused on teacher-centered learning method. It can be concluded that using technology in learning English can be an effective tool for teachers and students in classroom activities.

2.1.2 Media

The term media is the plural of medium, which can be defined as a place of communication that is useful for spreading news, films, education, songs, promotions, and music. These media include telephones, internet, radio, billboards, physical and online newspapers, and magazines. (Nordqvist, 2023). Which includes media, among others:

a) Games

A game is an activity that usually involves skill, knowledge, or chance, where players follow fixed rules and try to win against opponents or solve puzzles. The term "games" can refer to various forms of structured play, often undertaken for entertainment or educational purposes. The main purpose of games is for entertainment, something that is entertaining. However, with the development of this era, games have many benefits, one of which is to support learning needs and sources of information. Games are a form of entertainment that is often used as a mind refresher from the fatigue caused by our activities and routines (Henry, n.d).

Grace (2005) states that there are several types of games:

➤ Action

High-action games are the main draw. The primary skill required to play these games effectively is reflex response. The most popular action games are stealth (Metal Gear) and shooters (Doom). While some sports games are considered simulations, most sports games are also action games.

➤ Adventure

Games that focus primarily on puzzle solving and exploration. Although their popularity has declined over the past two decades, these games have historically provided the most compelling stories. Competent adventure game players often need to be able to reason, be creative, and be curious. Myst and Syberia are examples of pioneering adventure games.

➤ Puzzle

Puzzle-based games that are the main attraction for players. Most often, these games are available online on a budget. The oldest members of the gaming community are usually those who play these games. Tetris, Lemmings, and Minesweeper are some of the most popular puzzle games. Another interesting puzzle game with varying degrees of success is I.Q. Intelligent Cube.

➤ Role Playing

Games that allow players to be completely immersed in the circumstances of the player's character. By adopting advanced techniques for reporting and varying stories, role-playing games (RPGs) continue their long tradition of storytelling. RPGs usually have rich characters, long games, and complex character management. Famous RPGs include Fable, Never Winter Nights, Might and Magic, World of Warcraft, Baldour's Gate, and Ultima.

➤ Simulation

The player's ability to adapt the game situation to the real world is the most important element here. Simulations can provide a sense of fun in re-enactment. Examples such as car racing simulations and combat simulations are relatively common in this type of game. Simulations of social situations such as the Sims and Leisure Suit Larry1 are also included there. Gran Turismo and the Tycoon games are the mainstays of simulation games.

➤ Strategy

Strategy games provide entertainment by giving memorization tasks and solving problems in the game. Games in the first strategy, such as Civilization, do not use much storytelling, although the latest games use good narratives. An example of a story-based strategy game is the Command and Conquer game.

Meanwhile, according to Restiana (2017) games are divided into several types:

- Puzzle

A puzzle game where the player is required to solve puzzles in the game.

- Sport

This game is an adaptation of reality, requires agility and strategy to play

- Adventure

A game that emphasizes the storyline and the player's thinking skills in visually analyzing places, solving puzzles visually, solve puzzles or deduce events.

- Edugames (Educational)

This type of video game is created with the specific purpose as an educational tool, whether it's for learning to recognize colors, letters and numbers for toddlers, math, and learning a second language. The developer who makes it must aware to various things about this game so that this can really give education and improve skills to the game player, must take into account various things so that this game can really educate, add to the educational knowledge and improve the skills of those who play it.

b) Website

Website is one of the features that can be accessed using the internet. According to Rouse (2020) a website is a collection of publicly accessible and interrelated Web pages that share one domain name. The first website in 1990 was created by Tim Berners-Lee, a British physicist at CERN. Then, in 1993, the creator announced that everyone could use and access the web for free around the world. Rouse (2020) stated that websites were originally categorized based on the domain of top level. There are some examples, they are:

- Government agency websites = .gov

- Educational institution websites = .edu
- Non-profit organization websites = .org
- Commercial websites = .com
- Information website = .info

Websites are posted on servers, and it requires a web browser such as Internet Explorer, Chrome, or Firefox, to join and visit them. In addition, the people who want to visit them can use a computer or mobile device. The way to access is by clicking the enter on its URL address or by typing it on the search engines such as Bing and Google.

According to Tokening (2023) there are elements of website, such as:

a) Domain

The address of a website is called a domain. Domains are an alternative to IP addresses that consist of a dot-separated combination of numbers, such as 191. 898. 33. 1. Nevertheless, the number is difficult to remember by the user, so instead of IP addresses, the domains are used. There are two parts of the domain, such as the extension and the site name. Examples include edutech.com Edutech is the site name and .com is the extension.

b) Hosting

The definition of hosting in a website is an online service that has responsibility for backups, managing, security, configuring, web performance, and running the physical server. Hosting saves and manages all website data so that the user can sign-in through internet by using smartphones, laptop, computer. Moreover, the data can be in the form of text, databases, photos, and videos.

c) Programming Language

Programming languages are computer languages in which programmers send instructions to computers to perform certain tasks. This programming language will assist the programmer in determining which data the machine can process effectively.

d) Content

The website's content includes all of the information intended for visitors. As a result, this content allows visitors to obtain information from the intended website. Visitors to a news website, for example, can learn about the most recent news stories.

e) The Design Style

Design style refers to the appearance of a website. The appearance of a decent site will help us judge its credibility. An interesting impression, attractiveness, and user-friendliness will encourage visitors to explore the site.

In addition, according to Tukunang (2023), the benefits of a website are as follows: 1) building branding, 2) source of communication and information, 3) marketing media, 4) increase trust and incredibility, and 5) easy to access.

c) **“Games to Learn English” Website**

According to McGonigal (2013), games are defined as sequential activities carried out to achieve goals, contain fun characteristics, and have rules that must be followed. The rules in the game play a role in creating competitive and cooperative situations when choosing a strategy to win a game, either in groups or individually. Therefore, games are one of the most appropriate tools as a learning tool. One context of learning tools, for example, vocabulary teaching activities, games can help students improve their memory of the vocabulary contained in the game because during the learning process while playing, so students can remember the pleasant impressions of playing while learning.

Games to Learn English is one of the games on the website that is used as a tool for all students' resources to practice English in a fun and interesting way. In addition to being a tool for students to learn, this website can also be used by teachers to provide teaching materials for their students. However, students can also learn by using the 'Games to Learn English' site independently. As the site claims, the aim of this site is to provide a resource for students to practice English in an engaging and fun way. Other similar sites are more geared towards providing teachers with resources to give to their students, but the intention this site is to be a resource that language learners can use

independently. The main page for example only has a brief summary of each game, while the games themselves are quite easy to figure out and interact with. However, it is necessary to have some text descriptions and longer text articles as these help with search engine visibility.

In addition, this 'Games to Learn English' website has a special feature for teachers to create their own questions. So that it can make it easier for teachers to create teaching materials on one website.

2.1.3 Vocabulary Mastery

1) Definition of Vocabulary

Vocabulary is all about words, whether they be in a language or a specific set of terms that have been learned. Hatch and Brown (1995) define vocabulary as "a list or set of words for a specific language or a list or set of words that individual speakers of a language may use." Nation (2001) portrays the relationship between vocabulary knowledge and language usage as complementary: vocabulary knowledge facilitates language use, while language use, in turn, leads to an increase in vocabulary knowledge. Then McKeown and Curtis (2014) defined vocabulary as knowledge about the meanings of words. Thus, vocabulary is crucial in linguistic contexts.

Vocabulary learning is an essential part of foreign language learning as the meanings of new words are very often emphasized, whether in books or in classrooms. Learning vocabulary is one of the most important skills necessary for learning English. A conversation about the importance of vocabulary refers to using language to communicate with other people. In other words, vocabulary plays a central role in developing language skills in English lessons. Without vocabulary, learners will not be able to understand others or express their ideas.

Vocabulary mastery refers to an individual's capacity to understand vocabulary. Mastering vocabulary is one of the factors in learning English as a foreign language. It indicates that pupils can understand and apply words and their meanings. The more vocabulary children learn, the better they can use the language (Syarifudin et al., 2014).

2) Kinds of Vocabulary

Vocabulary is a key factor in determining the performance of each skill. The more language we have, the easier it is to communicate and express our ideas. Language abilities that use vocabulary in our tasks include listening, speaking, reading, and writing.

Hatch and Brown (1995) state that there are two types of vocabulary: receptive and productive vocabulary.

➤ Receptive Vocabulary

Receptive vocabulary includes words that learners know and understand when used in context but cannot produce. Students recognize vocabulary in reading texts but do not employ it in speaking and writing (Stuart, 2008).

➤ Productive Vocabulary

Productive vocabulary that students can understand, pronounce correctly, and apply constructively while speaking or writing. Productive vocabulary contains everything required for receptive vocabulary, as well as the capacity to speak and write on time. Developing productive vocabulary can be described as an active process because children can develop words to explain their ideas to others (Stuart, 2008).

3) Aspects of Vocabulary

There are some factors to consider when acquiring vocabulary. In vocabulary learning. According to Thornbury in Kurniasari (2014) stated that what becomes an indicator of achievement or assessment of vocabulary mastery is (1) pronunciation, (2) spelling, and (3) meaning.

➤ Pronunciation

Understanding how words are pronounced in English is very important for vocabulary acquisition, as each pronunciation has a different meaning but similar writing. English has a very large number of vowel sounds when compared to other languages, and this tends to be the most difficult area

for learners to deal with, with consonants being relatively easier. English vowels differ greatly between dialects, which is another source of difficulty.

➤ Spelling

When writing, correct spelling is very important to master. Just like pronunciation, spelling will mean wrong if the way it is written is not appropriate. Sometimes the same sound but the spelling is different. Good spelling is an essential aspect of effective communication in written language.

➤ Meaning

In the vocabulary of the English language, there are so many words that have different written words but have the same meanings. Therefore, learners should know the meaning of the words, so that they can also get new vocabulary by knowing other words that have the same meaning and make it easier to communicate during the learning process.

4) The Importance of Vocabulary

Vocabulary is considered an important element in the learning process. Vocabulary's role in determining the success of achieving skills is needed. The more language we have, the easier it is to communicate and express our ideas. Language abilities that use vocabulary in our tasks include listening, speaking, reading, and writing.

According to Lewis (2009), the first and most crucial challenge for second language learners before learning the four English skills of hearing, speaking, reading, writing, and even translating is to master vocabulary. It means that without proper vocabulary knowledge, we cannot develop language because vocabulary is an essential component of a language. Even with a little comprehension of syntax, humans may communicate well using only language. According to English linguist David A. Wilkins, "without grammar, little can be conveyed; without vocabulary, nothing can be conveyed."

Meanwhile, Lastiri (2023) stated that there are 9 benefits of mastering vocabularies, such as:

(1) Vocabulary improves reading comprehension.

- (2) Vocabulary improves one's ability to communicate.
- (3) Learning new vocabulary improves your reading and writing ability.
- (4) Vocabulary helps develop critical thinking skills.
- (5) Vocabulary knowledge increases the likelihood of academic success.
- (6) A strong vocabulary opens up career advancement opportunities.
- (7) Vocabulary helps develop life skills.
- (8) Having a rich vocabulary helps to convince others.
- (9) Vocabulary increases your confidence level.

5) Teaching Vocabulary

Teaching vocabulary involves helping individuals to acquire and comprehend the meaning, uses, and pronunciation of words. There is a wealth of research on how best students learn and how best teachers teach. According to McCarten (2007), there are some principles that can be used to help students learn vocabulary more effectively in the classroom:

a) Focus on Vocabulary

The syllabus and classroom should more focus on vocabulary so that students recognize its significance and realize that language learning extends beyond just learning a language. It's important to emphasize that learning a language is more than just grasping grammar (O'Dell 1997). In any classroom, one of the initial vocabulary learning strategies involves learning how to inquire about unfamiliar English words and their meanings, making phrases like "What's the word for... in English?", "How do you say...?", and "What does... mean?" are valuable to teach at the primary levels (Mc Carten, 2007).

b) Over Variety

A teacher teaching vocabulary needs to be creative in order to increase the student's motivation, engagement, enjoyment, and interest in the material. In order to create environments that promote high motivation, active learning, enjoyment, engagement, and understanding (Lelawati et al., 2018).

c) Repeat and Recycle

Learning vocabulary is basically learning to see, remember, write, and pronounce which needs to be done repeatedly. EFL learners' surroundings do

not offer opportunities to practice the learned lexis in a natural way on the other hand ESL learners have more opportunities to practice. So, classroom practice and recycling of lexis becomes immensely important for EFL learners. This repeat and recycling should be done over an extended period of time so that learners have the opportunity to review and practice again and again until the learners have considerable mastery of learnt chunk (Azim et al, 2020).

d) Provides an Opportunity to Organize Vocabulary

As a medium for recall, textbooks have a lot of new vocabulary, but there are other types of organization and these can be described under three broad headings:

➤ Real-world groups

This means vocabulary based on specific groups or activities (e.g. part of body, kinds of foods, celebration at an even, etc.)

➤ Language-based groups.

This using linguistic criteria as a way to group, for example, different parts of speech of a word family; words that have the same prefix or suffix, or the same family; words that have the same prefix or suffix, or the same sound; dependent verbs and prepositions; collocations of different types (verb + noun; adjective + noun, etc.).

➤ Personalized groups.

This grouping based on students' experiences or likes and dislikes.

e) Make Vocabulary Learning Personal

This point is more about organizing vocabulary based on students' interests.

f) Use strategic vocabulary in class

This refers to the selection of the way teachers teach and media that attract students' learning interests. One of them is by utilizing website games technology (Games to Learn English Website).

2.2 Study of Relevant Research.

Considering the topic discussed in this research, there are some researches has been conducted related to the topic, they are:

- 1) In a study conducted by Jihan (2022) entitled "Improving Students' Vocabulary Mastery using Web-based Vocab Game Gamestolearnenglish.com at Seventh Grade SMPN 2 Senduro" with the aim is to find out the improvement of students' vocabulary mastery using web-based vocab game on gamestolearnenglish.com. This study was conducted using the Classroom Action Research method. The results of this study showed an improvement from cycle 1 to cycle 2 in vocabulary tests given by the researcher.
- 2) The second study was conducted by Burhani (2023) entitled "Web-Based Wordwall to Promote Students' Self-Motivation in Vocabulary Learning: A Case Study of Junior High School in Tasikmalaya" with the purpose investigate students' motivation in English vocabulary by utilizing Wordwall. This study was conducted using descriptive case study. Then, the results of this study five aspects of when students are motivated in the context of foreign language learning, particularly English are investigated.
- 3) The third study with title "Web-based Learning Media "ESL Games" to Enhance Students' English Learning Vocabulary" conducted by Chaidir (2021). Through web-based English learning, this study seeks to increase eighth-grade students' vocabulary knowledge in English for junior high school students in the 2021 academic year. Additionally, it seeks to ascertain the efficacy, efficiency, and appeal of Web-based English learning in terms of English language acquisition. In addition, the result of the study is that the website helps students in their vocabulary mastery and also increases the effectiveness of English learning as assessed by learning outcomes and test scores.
- 4) The fourth study was conducted by Rochmanawati (2015) entitled "Improving English Vocabulary through Pearl's Peril Game". This study sought to determine the efficacy of game-based learning for vocabulary acquisition in English. The quantitative method was used to conduct this investigation. The

study's findings demonstrated a substantial difference between the pre-test scores prior to the Pearl's Peril game treatment and the post-test scores following playing the Pearl's Peril game in both scenes.

Since the previous study chose junior and high school students, the researcher is interested in researching with elementary schools to capture rich insights. In addition, in this study, the researcher wants to focus on one of the learning websites, "Games to Learn English".