

CHAPTER II

LITERATURE REVIEW

In this chapter, the writer discussed some related theories to support this research. The quotations and some experts' opinions are to make the explanation clear. Therefore, this chapter aims to elaborate on the related literature in this research.

A. Teaching Media

Media is a tool used to deliver information or messages. It has a crucial role in the teaching-learning process. Without media, the teaching-learning process cannot run well. Media used in teaching and learning is called teaching media or educational media. It is a tool that helps teachers in their teaching practices to present materials to students. According to Smaldino, Russell, Heinich, and Molenda (2009), teaching media is a provision of messages on purpose to facilitate communication and learning. Moreover, Chan, Chin, Nagami, and Suthiwan (2011) stated that teaching media refers to instruments whose information may be stored to support learning. From the definition above, it can be concluded that teaching media is a tool used by teachers to attain specific learning objectives.

Teaching media has been used by teachers for decades. The teachers have to choose appropriate teaching media to support the process of teaching and learning. Gerlach and Ely (as cited in Arsyad, 2017) stated three characteristics of teaching media. The characteristics are fixative, manipulative and distributive properties. First, fixative property describes the ability of media to

capture, store, preserve and construct an object or event. For example, a photograph or voice recording can be used as information anytime. Second, manipulative property represents the transformation of an object or event in many ways. It means that the media can be edited or modified to support the teaching-learning process. For example, a recording of the process of flowers' bloom can be speeded. Last, distributive property describes the ability to present information through space. It means the media can be spread to students anywhere.

Teachers can utilize different forms of teaching media to teach. There are some types of teaching media. The teachers have to use the appropriate ones to support the process of teaching and learning. Smaldino et al. (2009) stated that “there are six basic types of teaching media: text, audio, visual, motion, manipulative, and people” (p.9). First, letters, numbers, and symbols in written or printed form in any format, such as books, posters, chalkboards, and files, are called texts. Second, audio is information that can be heard, such as people’s voices and music. Third, visual media represents information that can be seen, such as diagrams and graphics. Fourth, motion media is moving text or pictures, such as animations. Fifth, manipulative media is media that students can touch. Last, people as media mean teachers and students because students can learn from teachers or other students. Moreover, Mahajan (2012) classified teaching media into seven categories. They are graphic media (books, pictures, or charts), display media (chalkboard, bulletin board, or flannel board), three-dimensional media (objects or models), projected media

(slides, films or records), audio (radio or voice recording), video (CD or computers) and activity media (role play). In conclusion, the teachers have to choose and use appropriate media for the teaching materials. They can also combine some media to provide fruitful tools for enhancing students' knowledge, called multimedia.

1. Multimedia

Numerous different media merged are generally termed multimedia. Those media are used to present information. According to Vaughan (2011), multimedia is a combination of text, art, sound, animation, and video provided to users by using electronic devices, such as a computer. The combination makes media more organized and attractive. It means that multimedia offers an opportunity to the users of computers to present ideas in different ways through various media. According to Mayer (2009), multimedia is a technology used for providing materials visually and verbally. It means that multimedia displays information not merely in plain text form. In conclusion, multimedia is different media combined that produces fruitful outcomes for users. It enables multimedia to be used in many fields, especially in the educational field as an educational tool.

Multimedia has a significant influence on education. Andresen and van den Brink (2013) state that “multimedia can be viewed as a learning tool and a means of communication” (p.22) . It means multimedia can support and stimulate the learning environment. It can be used as a source of information in delivering learning resources. This new context in

education can affect the way of teaching and learning. It helps the students to get information in various formats. According to Selwyn and Gorard (as cited in Thamarana, 2016), applying multimedia in the educational field is viewed as necessary for keeping education relevant to the 21st century. It shows that the development of technology supports the use of multimedia in which offers new ways of learning that can take place in schools and at home. In addition, applying multimedia is advantageous in the teaching and learning process.

Many advantages of multimedia are significant for applying it in the educational field. It helps to enhance and lead to a better learning process. Andresen and van den Brink (2013) found that “multimedia can appeal to many types of learning preferences” (p.25). It helps the teacher apply appropriate media that cover students’ learning types. Multimedia is used to grab students’ interest and attention during the learning process. It can also make learning environments more fun and decrease students’ tension towards subjects. Moreover, multimedia has the potential for a better quality of the teaching-learning process.

Designing multimedia is combining various media into one with noticing some aspects. It takes more time and effort than just writing a story. Twelve principles can be applied as guidelines in designing multimedia to make the learning environment more engaging and effective. The principles are stated by Mayer (2009).

a. Coherence Principle

This principle refers to using information only needed by the students. It can be presented through simple text and pictures related to the learning topic. Using simple language helps the students to understand easily.

b. Signaling Principle

Students learn better when they know what things they should pay attention to on the screen. It can be done by highlighting significant parts, such as underlining words or adding an arrow.

c. Redundancy Principle

It refers to explaining graphics with narration or text but not using both. It means that if the multimedia has a picture with narration, no need to add text or vice versa. It is to avoid presenting redundant information. However, text can be added if there is an unfamiliar word or key phrase.

d. Spatial Contiguity Principle

It is about spaces between text and graphics on multimedia. They should be close to ease students in processing the information. The text and graphics are relevant to each other.

e. Temporal Contiguity Principle

It refers to describing a graphic or an animation as it is happening. Narration and graphics or animations are presented together, not separated. It means they should occur at the same time.

f. Segmenting Principle

This principle implies splitting information into segments so students can learn better. It provides students with more control over their learning. This principle is effectively applied for teaching media that has complex materials.

g. Pre-training Principle

It refers to introducing key terms or concepts before starting the process of learning. It allows the students to understand basic definitions, words, or ideas. It can be done by spreading handouts about basic knowledge of the learning topic to students.

h. Modality Principle

It implies that describing graphics with narration is better than on-screen text. Learning through graphics and spoken text is better than graphics and written text. It refers to limiting the amount of text used. It tends to rely more on graphics unless to define significant terms.

i. Multimedia Principle

This principle is in line with multimedia elements. Mayer (2009) stated that “learning from words and pictures is better than merely words” (p.223). Relevant graphics are used to enhance or clarify information. It also helps students to understand and organize information easily.

j. Personalization Principle

It refers to representing information with simple and casual languages. Having a more natural voice can improve the learning experiences. It also allows students to feel more comfortable.

k. Voice Principle

It is important to select voices used in multimedia. This principle implies that learning from a human voice is better than a machine voice. It means avoiding using an automated computer voice.

l. Image Principle

It refers to using relevant animations and graphics that help reinforce the audio voiceover. Trying to limit talking head screen time amounts is needed to avoid distracting the students' attention.

All the principles above support designing effective multimedia to create better learning experiences. However, this does not mean using principles altogether when designing multimedia. It is merely as guidelines. 6 out of 12 principles are applied by the writer in developing the multimedia. They are coherence, signaling, spatial contiguity, segmenting, multimedia, and voice principles. Moreover, effective multimedia should be interactive, flexible, and integrated to support the learning process and increase students' motivation, and it is also known as interactive multimedia.

2. Interactive Multimedia

Interactive multimedia refers to a combination of some media provided with navigation to create interaction between users and multimedia

itself in digital systems such as computers. According to Deliyannis (2012), interactive multimedia is a digital system in which multiple media and users affect each other behavior. Interactive itself refers to two ways of communication in which users' inputs create outputs. Richards and Schmidt (2010) state that interactive is the ability of a user to interact with a computer. They added an example: multimedia can be classified as interactive when involving a question in a computer and users respond to it; then the computer gives feedback by telling the users whether the answer is correct or not. It means interactive components are the control from users and feedback from the computer. It is supported by Alessi and Trollip (2001) that interactivity elements in multimedia are users' control (such as navigation buttons) and providing feedback. Interactive multimedia is a package of multiple media appearing as computer software and allowing users to control it.

Interactive multimedia is a new way of teaching and learning to new generations. It is an innovation to modernize the way of exploring educational things. According to Andresen and van den Brink (2013), the provision of interactivity is the biggest advantage of interactive multimedia as digital media compared to other media. It allows students to control the presented content. It also can provide feedback based on the students' needs. Utilizing interactive multimedia as an educational tool does not mean eliminating the teacher's roles; instead, it eases both the teacher and the students in the process of teaching and learning.

Some elements should be considered in designing interactive multimedia. A combination of those elements makes information more understandable. According to Ivers and Barron (2002), they are components that provide realism, color, motion, and sound. All elements improve the information of the learning topic and make it more efficient for the students. Vaughan (2011) stated five main elements of interactive multimedia: text, graphics, sound, animation, and video.

a. Text

Text is the most common system of communication. It delivers meaning accurately and in detail. Therefore, it is one of the fundamental elements in designing interactive multimedia. Using short and straightforward textual information is suggested to prevent the screen from being overcrowded. According to Vaughan (2011), it is important to use specific and powerful meaning words to express ideas. The text is for menus, navigation systems, keyword lists, and contents. It is recommended to use a simple typeface and font for the same types of information.

b. Graphics

Graphics are a key part of interactive multimedia. The graphics may be small, large, or even full screen. The graphics may also be colored, placed randomly on the screen, or shaped differently. According to Ivers and Barron (2002), graphics are images, pictures, drawings, or paintings presented on computers. There are several ways

to collect graphics in designing interactive multimedia: creating with a computer program, importing from an existing file, scanning from a hard copy, or digitizing with a camera. Moreover, the graphics must be relevant to the learning topic.

c. Sound

Sound is a meaningful way of communication in any language. According to Ivers and Barron (2002), sound elements in a program are known as audio. It can be obtained by recording with a microphone, controlling a CD with audio, using synthesized speech, creating music with a MIDI input device, or using clip audio. Using the power of audio in designing interactive multimedia can make the difference between an ordinary one and an outstanding one. It is one of the appropriate ways to teach different languages. It can attract and help students in learning. However, it is vital to use relevant audio and content to avoid ruining the interactive multimedia.

d. Animation

An Animation is an object that moves across on the screen. Ivers and Barron (2002) stated that animations are images files that include movements. Images can be enlivened in many ways using appropriate software. There are two kinds of animations: path and frame animation. Path animation is one or two objects moving on the screen; meanwhile, frame animation is some objects that move simultaneously. Animation

represents an abstract concept. However, overusing animation and irritating visual effects can ruin interactive multimedia.

e. Video

Video is a combination of sequence images to form moving pictures and sound. Video can be recorded in digital format or converted (digitized) through a special card in the computer. Ivers and Barron (2002) stated that digitized video refers to recorded motion sequences and is saved as a computer file. In addition, digital video is used when it is necessary.

Those all elements make the interactive multimedia more alive. They are to illustrate abstract concepts and enhance students' ability through visual and other media. Besides those elements, there are also criteria for interactive multimedia. Those multimedia elements and interactivity elements (users' control and feedback) should be considered to design appropriate interactive multimedia. One of the software used to create interactive multimedia is Microsoft PowerPoint.

3. Microsoft PowerPoint

Simple presentations have been created with PowerPoint. It is commonly software for multimedia presentations. According to Frandsen (2011), PowerPoint is a program that can create attractive slides with text, images, audio, and video. PowerPoint can be an effective tool to present material in the classroom and encourage student in learning. PowerPoint can be used to project visuals that would otherwise be difficult to bring to class.

many kinds of quizzes, such as multiple choices, essays with short answers, fill-in blanks, timers, provided feedback, and scores after answering quizzes. Furthermore, it is helpful to create powerful interactivity using Microsoft PowerPoint.

PowerPoint gives some advantages to the users. According to Fisher (as cited in Amal, Ikhsanudin and Bunau, 2021), here are the advantages of using PowerPoint as teaching media:

- a. PowerPoint is easy to obtain, modify, and create.
- b. It may take time to produce or adapt, yet it can be shared.
- c. It is versatile for any classroom.
- d. It can be used for class activities.

Due to all advantages above, it shows that PowerPoint is useful for teaching.

Moreover, it can motivate students to engage in the learning process.

B. Vocabulary

Vocabulary is one of the important aspects of learning English because it is a bridge to link reading, listening, writing, and speaking skills. According to Akdogan (2017), vocabulary is an element to express ideas. It is to understand others' messages and to communicate students' ideas. Vocabulary has a great role in producing and mastering a language. It means that students cannot express their ideas well in English without learning many vocabularies. Communication can be successful if the speakers understand each other's messages.

Harmer (2007) defines “vocabulary as chosen units to construct sentences on purpose to express a particular meaning” (p.61). Vocabulary is words combined into phrases or sentences to communicate to others. Hiebert and Kamil (2005) define “vocabulary as the knowledge of words and their meaning” (p.3). A vocabulary can have more than one meaning. It can be understood by looking at the previous or next vocabulary. From the definition above, it can be concluded that vocabulary is chosen and constructed to express ideas with a particular meaning. Used vocabulary can represent the students’ English skills.

1. Types of Vocabulary

It is important to know that there are different types of vocabulary. They have different purposes. Some experts have classified types of vocabulary. According to Hiebert and Kamil (2005), there are two types of vocabulary: receptive and productive vocabulary.

a. Receptive vocabulary

It refers to the vocabulary that the students get from others. According to Hiebert and Kamil (2005), the vocabulary is not well known and is not used frequently by the students. They may be able to guess the meaning of some receptive vocabulary, even though they do not know its meaning. The students can obtain it through listening and reading.

b. Productive vocabulary

It refers to a set of words used in speaking and writing. According to Hiebert and Kamil (2005), the students are well known, familiar, and

frequently use the words. It is also called expressive or active vocabulary. They produce the words to express their ideas to others.

Based on the explanation above, we can conclude that there are different types of vocabulary that are understood and used by the students. It means that although they know the words, they may not use them because they obtain from others. Meanwhile, the students must be mastering the words they use in speaking and writing.

2. Aspects of Vocabulary

Vocabulary has some important aspects in teaching-learning process. The aspects can help the students have better English skills because they know what appropriate vocabulary to be used. According to Nation (as cited in Lessard-Clouston, 2021), there are three aspects of vocabulary knowledge: form, meaning, and use.

a. Form

It involves spoken and written forms of vocabulary. Learning the spoken form of vocabulary is related to learning new sounds that may be different from the sounds in students' first language. Every language has its own set of sounds. Besides the spoken form, it is also important to learn the written form of vocabulary. Learning the written form of vocabulary is related to reading or writing. It enables the students to enhance their English skills. According to Nation (as cited in Lessard-Clouston, 2021), the form of vocabulary includes its pronunciation

(spoken form), spelling (written form), and word parts (such as prefix, root, and suffix).

1) Pronunciation

It is producing sounds of vocabulary in a particular way. The students need to know what a vocabulary sounds like when they learn English. It helps them to understand what others mean easily. Stressing is important in producing vocabulary or sentences. It is because there are many homonyms, homographs, and homophones in English. The use of intonation is crucial in conveying meaning. It is used to distinguish whether it is asking questions or making statements.

2) Spelling

It is a group of letters that represents words. It refers to the written form of vocabulary. By knowing the written form, it helps the students to write them correctly. English spelling is difficult because many of their spelling is different from how they sound.

3) Word Parts

Many vocabularies in the English language are constructed from word parts called prefixes, roots, and suffixes. It has particular meanings when the word parts are added. First, the prefix is a word part added to the beginning of a base word (a word root) to modify its meaning. Second, the root or base word is a word part that can

stand alone and is meaningful. Last, the suffix is a word part added to the end of a base word (a word root) to modify its meaning.

b. Meaning

It is one of the significant aspects of vocabulary. It refers to the definition of vocabulary. In learning English, students should know the meaning of vocabulary. English vocabularies usually have more than one meaning when used in a different context. Knowing vocabulary meaning can ease the students to communicate their ideas.

c. Use

It refers to the way a vocabulary is used in a language. This aspect involves grammatical functions, collocations, idioms, registers, and frequency. First, grammatical functions refer to combining vocabulary and grammar to form patterns. Second, a collocation is two or more vocabularies that appear together frequently. Third, idioms are expressions whose meaning is different from the meaning of base vocabulary. Fourth, the register refers to the vocabulary used for a particular context. Last, frequency is vocabulary which is more frequent than others. Most common vocabularies need to be learned by students because they can be encountered in reading or listening.

3. Teaching Vocabulary for Junior High Schools

In developing the interactive multimedia, it is important to consider a curriculum, syllabus, and teaching method used by the English teacher during teaching-learning process. *Kurikulum* 2013 is the curriculum

developed and applied in Indonesia. It is a curriculum whose learning objectives include students' development in attitudes (affective), skills (psychomotor), and integrated knowledge (cognitive). This curriculum covers both interpersonal and transactional communications in many different contexts through types of text and language features by following The Ministerial Regulation No.65 of 2013. In addition, the learning material contains the social function, text structures, and language features.

Kurikulum 2013 commonly applies a scientific approach based on the standard of the learning process. It is a model of teaching that emphasizes students as subjects of learning. According to Nugraha and Suherdi (2017), it refers to organizing the students to be more active in the learning process. This approach is more effective in increasing students' learning outcomes. It requires the students to get information from many resources without only relying on the teacher. The scientific approach in *Kurikulum* 2013 consists of five main stages: observing, questioning, experimenting, associating, and communicating.

Therefore, it is important to consider a curriculum, syllabus, and teaching method used by the English teacher during teaching-learning process in developing the interactive multimedia. The stages of the scientific approach as the teaching method should be inserted in the product to emphasize the students as a learning center. According to Demaulid (2020), the procedures of teaching vocabulary by applying scientific approach are as follow:

a. Observing (Pictures or Text)

An English teacher provides pictures or a reading text for students. The students observe the pictures, or read the text and take note of bold words in the text.

b. Questioning (Asking Questions)

The students identify the information they need to know to understand the pictures or the bold words in the text. They ask questions to the English teacher related to the pictures or the information of the bold words in the text.

c. Experimenting (Collecting Data/Information)

The students collect data or information related to the pictures or the text by reading teaching material or looking for it in a dictionary.

d. Associating (Analyzing Data)

The students analyze the data or information by doing some activities, such as answering the questions independently or with a group.

e. Communicating

The students communicate their answers based on what they have discussed, such as presenting the answers in front of the class.

C. Descriptive Text

There are several text genres taught to junior high school students. It is based on *Kurikulum* 2013 which is text-based. Each genre has its purpose, generic structure, and language features. One of the genres is descriptive text. According to Knapp and Watkins (2005), descriptive text is talking or writing about a

picture, a character, a place and an animal. It means that this type of text is about description. According to Langan (2016), descriptive text provides readers a visualization or a picture in words. Hence, the writer should know well about what they want to describe in order to provide clear description, and the writer should consider how familiar the readers about the topic. In conclusion, descriptive text is a text whose purpose is to describe people, animals, and things in specific.

1. Generic Structure of Descriptive Text

Descriptive text has its generic structure. According to Knapp and Watkins (2005), it consists of identification and description. Identification is to identify the person, animal, place, or thing to be described. It is usually a general statement in the first sentence or the first paragraph in order to introduce the subject of description. Meanwhile, description is to describe parts, qualities, and characteristics of the subjects. Here is the example of descriptive text in order to make clear explanation of its generic structure:

Table 2. 1 The Example of Descriptive Text

My Uncle	
Identification	I'd like to tell you about my uncle. His name is Dwi Triyanto. People call him Mr. Dwi.
Description	He is in his thirties. He is tall and well built. He is also strong and healthy. He has short black hair and brown skin. He is good at martial arts, especially <i>Pencak Silat</i> . He is a security officer in a shift. He looks

serious, but is actually humorous. He is also kind and helpful. He works as a volunteer for my town's SAR team. Whenever he is off, he is ready to help SAR team, such as helping victims of natural disasters or fire.

Taken from *Buku PR Bahasa Inggris untuk SMP/MTs Kelas VII Semester 2, (2021), Intan Pariwara: Yogyakarta*

2. Language Features of Descriptive Text

Descriptive text also consists of language features. According to Knapp and Watkins (2005), here are the language features of descriptive text:

- a. It mostly uses Simple Present Tense.
- b. Relational verbs are used when classifying and describing appearance/qualities and parts/functions of phenomena (is, are, has, have).
- c. Action verbs are used when describing behaviors or uses.
- d. Mental verbs are used when describing feelings.
- e. Adjectives are used to describe nouns.
- f. Adverbs are used to describe verbs to provide more detailed description.
- g. Adverbial phrases are used in descriptions to add more information about the manner, place, or time.
- h. Personal and literary descriptions generally deal with individual things, for example: my favorite toy, my house, and my big bear.