

CHAPTER III

RESEARCH METHODOLOGY

This chapter elaborates on the research methodology employed in the study. It covers research design, site and participants, instrumentation, data collection procedure, and data analysis. First, the research design discusses the method employed in the study by including the description of the principle and characteristics of the method. Second, the site and participants focus on the setting where the study was conducted and the participants who were involved in the study. Third, instrumentation emphasizes on the data collection technique used in the study. Fourth, the data collection procedure describes the sequences of collecting necessary data. Last, data analysis explains the procedures of analyzing and interpreting data that have been collected.

3. 1. Research Design

The methodology employed is qualitative methodology, which is, under qualitative design. This qualitative design is considered appropriate for the present study owing to several reasons.

First, the study aims at providing details, in-depth, and careful description, categories, analysis, and interpretation (Mackey & Gass, 2005; Yin, 2011; Creswell, 2012; Creswell, 2003; Richards, 2003) of multimodality used in students' English oral presentation as well as the extent to which the use of multimodality is able to facilitate students' meaning-making in English oral presentation in the classroom.

Second, this study focuses on the exploration of individual or entity (Gillham, 2000; Heigham & Croker, 2009; Richards, 2003) which is senior high school student, and addresses a particular phenomenon or unit (Hancock & Algozzine, 2006; Richards, 2003) —i.e. English oral presentation activity; without creating any generalization of the findings to broader population.

Furthermore, the phenomenon being investigated occurs in a natural setting and context (Hatch, 2002; Heigham & Croker, 2009)—i.e. in the classrooms of a private school in Bandung. In other words, the researcher did not

manipulate or interfere within the classroom activity since context—stated by Hancock & Algozzine (2006; p. 16), is important in qualitative research, and natural context is beneficial for doing intensive investigations of individuals or groups as well as events, situations, programs, activities, and other phenomena of interest.

3. 2. Site and Participants

3.2.1 Setting

The study was conducted in one of the private senior high schools in Bandung. This private school was chosen as the site of the study due to the researcher's knowledge of the school's situation and characteristics.

Since the researcher is a teacher in a private junior high school which is under the same institution as the investigated senior high school; the researcher is easy to get access to the site of the participants to conduct the study. Likewise, the researcher has some significant knowledge of the school's characteristics and situation. It is crucial for the researcher to be familiar with and understand the situational and the cultural context of the site being investigated to make sense of the event being described (Eggins, 1994; Emilia, 2005).

Regarding teachers' knowledge of the school's situation, it is found out that oral presentation utilizing PowerPoint is a common activity in the English classroom. The teacher usually takes a role as a facilitator in which the students are usually assigned to explore the material that they are going to learn by searching it on the internet. After exploration, the students should share and present what they have got in front of the class. Moreover, the assignments given are project-based, in which the students are required to present orally the result of the project in front of the class.

By considering those facts, the researcher aims at investigating the students' PowerPoint Presentation slides as multimodal text to figure out how the representational meaning is realized and how images and text are related to each other on the slides.

3.2.2 Participants

The participants involved in the study were the tenth grader of a private senior high school. These senior high school students were chosen as participants since it is stated that (Al-Nouh, Abdul-Kareem, & Taqi, 2015), oral presentation, which is the focus of the study, is considered as an important skill for students at a higher level of education. Furthermore, senior high school students are expected to have more enough English knowledge to do oral presentations comprehensively.

This tenth grader consists of 20 students. However, only 6 students, i.e. three students who explain the natural phenomenon and three students who explain the social phenomenon; were chosen purposively (Richards, 2003; Creswell, 2003; Mackey & Gass, 2005) as the representative of participants involved. Those representatives were selected due to three factors.

First, since there was two topics presented—natural and social phenomenon, the representative selected can represent and show a different angle of how PowerPoint slides are made to achieve the purpose of the genre, thereby eliciting the data of the interest (Etikan, Musa, & Alkassim, 2016). Mackey & Gass (2005) argue that by involving more than one individual learner or more than one existing group of learners and selecting them into categories; it would be able to illustrate the different pathways of learners in studying by comparing and contrasting their behavior within a particular context.

Second, as the study probes into the analysis of the image-text relation; the PPT that they designed involves a big portion of text and image in the slides. It means those six representative students have designed more slides which include image and text than the other students,

Third, the qualitative research tends to provide a detailed and thick description (Markauskaite, Freebody, & Irwin, 2006) of specific learners (or sometimes classes) within their learning setting (Mackey & Gass, 2005, p. 171); the number of participants is not a big deal in this study. It is typical in qualitative research to study a few individuals or a few cases (Creswell, 2012, p. 209; DePaoulo, 2000). Besides, the sample pool is small enough, which is one class; hence, Etika, Musa, & Alkassim (2016) suggest a set number of participants are not necessary.

3.3. Data Collection Techniques

As this study is under qualitative design, which focuses on a particular individual, event, situation, program, or activity (Hancock & Algozzine, 2006, p. 33); there are two instruments which are considered appropriate to collect extensive data— Document which includes students' PowerPoint presentation slides and observation which includes audiovisual recording of students' oral presentation. The elaboration of the data collection procedure by utilizing those instruments would be explicated as follow.

3.3.1 Document

The necessary document collected in the study is students' PowerPoint slides of a presentation. The students' PowerPoint slides are collected after the students have accomplished the presentation in front of the classroom. These data are collected to get a deep insight into how the experiential meaning of images and text is presented and how the images and texts are connected logically to each other in the slides.

3.3.2 Observation (video recording)

Observation is considered as one of the data collection technique in the study. By including audiovisual/video recording form, the observation aims at acquiring the information related to speech units in the presentation.

By serving a role as an active participant (Spradley, 1980) or a participant as an observer (Alwasilah, 2008), the researcher observes the classroom by participating and engaging actively in every activity. In this case, the observer teaches students an explanation text.

There are several steps in conducting an observation that adapts to Litosseliti (2010). The first step is collecting and logging data. In order to get more accurate, suitable, and necessary data; the researcher attends the classroom for 6 meetings. In these numbers of meetings, the researcher teaches students an explanation text. The objective of the instruction is the students can explain a certain phenomenon (either natural or social phenomena) both written or orally. However, since the focus of the study deals with representational meaning and text-image relation realized on PowerPoint Slides; the observation focuses on the

speech units realized on the presentation as the students utilize to explain the topic.

The second step is the sampling data. As video recording may produce and contain rich data and may take hours to transcribe an excerpt of few minutes; it is generally neither feasible nor necessary to analyze all of the videos in detail (Litosseliti, 2010). Therefore, sampling some videos and episodes are necessary for detailed analysis. For this reason, although all of the students in Grade 10th have participated in the observation; only three students from each group of explanation text—natural and social phenomena, which is 3 to 5 minutes long of each, become the primary source. Furthermore, since multimodal transcription and analysis in the presentation are extensive; several modes, i.e. speech, written, and visual images, are assigned as the focus of analysis.

3. 4. Data Collection Procedure

The data was collected through several stages. The stages are visualized in the graph below:

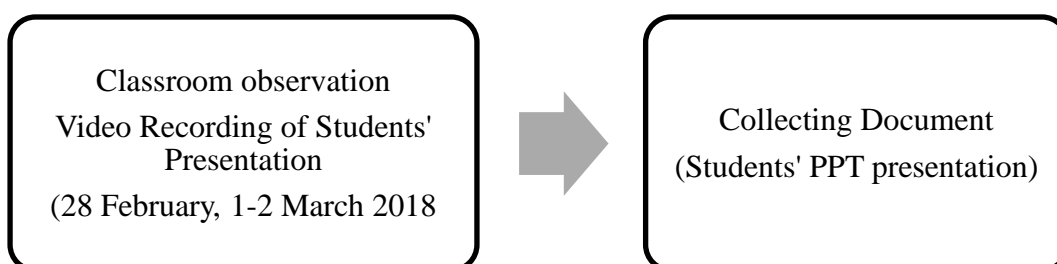


Figure 3. 1 Data Collection Procedure

3. 5. Data Analysis

There are two types of data—observation and document. Those data will be triangulated in order to get the best analysis and conclusion regarding the research question presented—how Representational meaning on images are realized and how image and text are related to each other in students' PowerPoint slides.

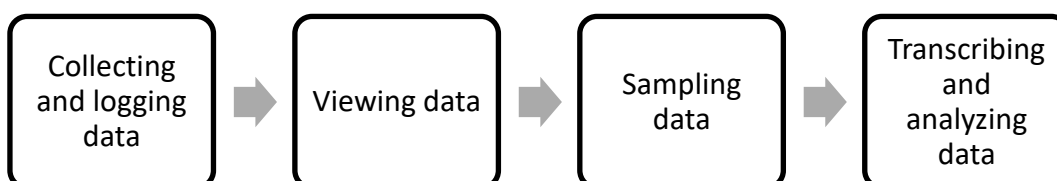


Figure 3. 2 Multimodal Analysis Framework by Bezemer & Jewitt (2010)

In general, Multimodal text, in this case, PowerPoint Slides, are analyzed using a Multimodal analysis framework proposed by Bezemer & Jewitt (2010), as shown in Figure 3.2. However, some particular resources to figure out Representational meaning on images and image-text relations need a more detailed analysis. In particular, the analysis of Representational meaning is based on the theory proposed by Kress & van Leeuwen (2006); while image-text relation is analyzed under Martinec & Salway (2005) theory. Those implemented theories have mentioned and explicated in the previous chapters.

3.4.1 Document Data Analysis

As stated previously, the document accounted for as data in the study is the Students' PowerPoint Slide presentation. Since the analysis focuses on how the experiential meaning of images and text is realized and how images and text are related; the slides selected for the analysis are they which comprise texts and images. In specific, the data analysis of each multimodal element shown on the slides is accomplished by some established theories:

3.4.1.1 The analysis of representational meaning of images

The representational meaning is analyzed using a framework coined by Kress & van Leeuwen (2006). Kress & van Leeuwen (2006) suggest that the analysis of representational meaning deals with the weather the images are shown to hold narrative or conceptual representation. It is **narrative representation** if the available multimodal resources on the images illustrate the actional or reactional process. In the actional process, the analysis looks at the unstable ongoing action of the participants in the images. It deals with the actor, the goal, and the vector (a connector between an actor and the goal). In another narrative process, which is reactional, the analysis focuses on how the vector represented by the direction of 'the glance' or 'eyeliner' of participants. It deals with the reactor, a participant who does look, and phenomenon, a participant towards which the looking is done.

Furthermore, it is **conceptual representation** if the images analyzed show inanimate objects such as graphic and diagrams; thus, the analysis focuses on motionless and stable participants. The analysis deals with the weather the graphics or diagrams or images involve the classificational process (taxonomy relation between participants), analytical process (the parts-whole structure of

participants), or symbolic process (meaning representation shown in the image). In short, Figure 3.3 summarizes how the analysis of Representational meaning works.

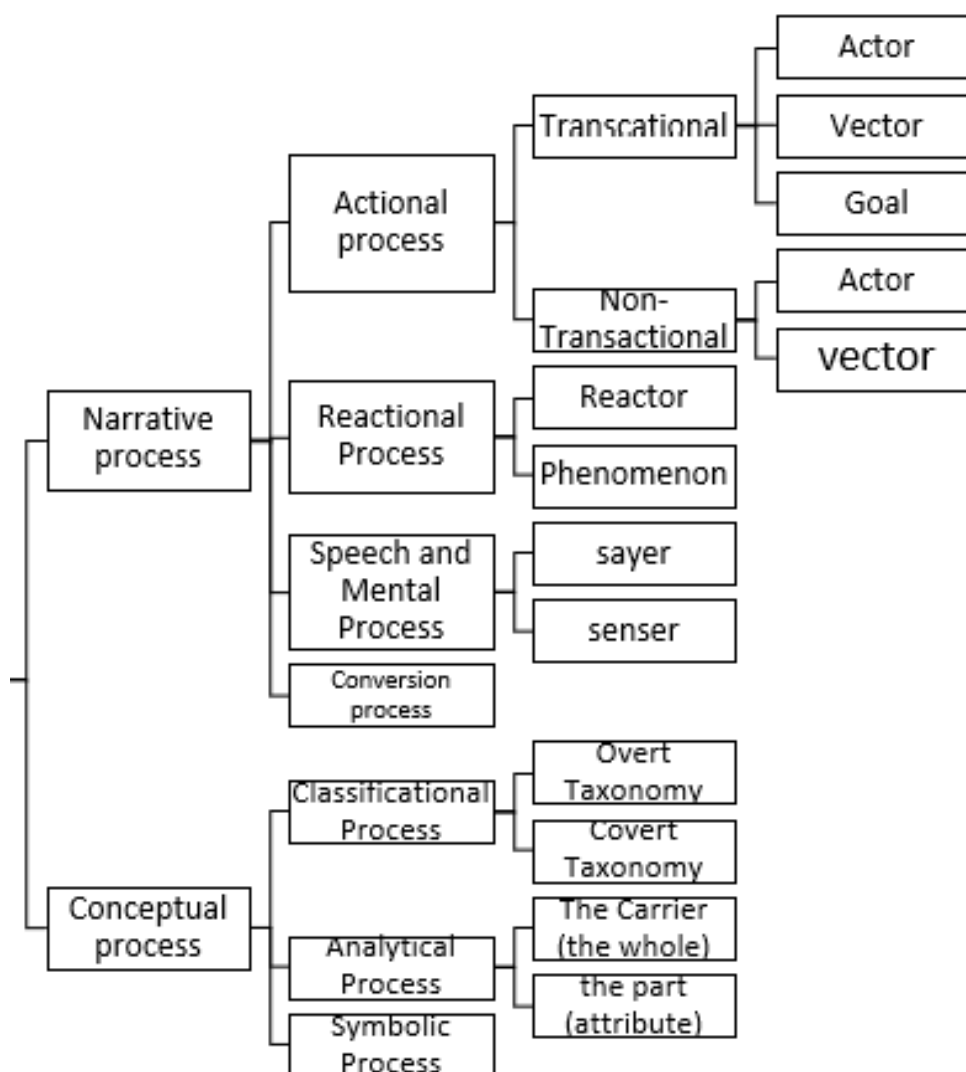


Figure 3.3 Framework for analyzing Representational meaning

3.4.1.2 The analysis of representational meaning of text

The texts accompanied the images on the slide are analyzed by the transitivity system proposed by Halliday (1994). In this transitivity system, there are six different types of processes: material, mental, verbal, relational, behavioral, and existential (Emilia, 2014, p. 150). Each process consists of three components—the process itself, the participants and the circumstances (Halliday, 1994, p. 107). Accordingly, the analysis of text in the present study follows the transitivity framework which is exemplified below:

The esophagus	delivers	the food	to the stomach
Actor	Pro: Material	Goal	Circ: Place
Participant	Process	Participant	Circumstance

3.4.1.3 The analysis of image-text relations

The relation of image and text in PowerPoint Slides is analyzed by using status and logico-semantic relation system proposed by Martinec & Salway (2005). Figure 3.3. below illustrates how status and logico-semantic relation work to figure out the relation of image-text.

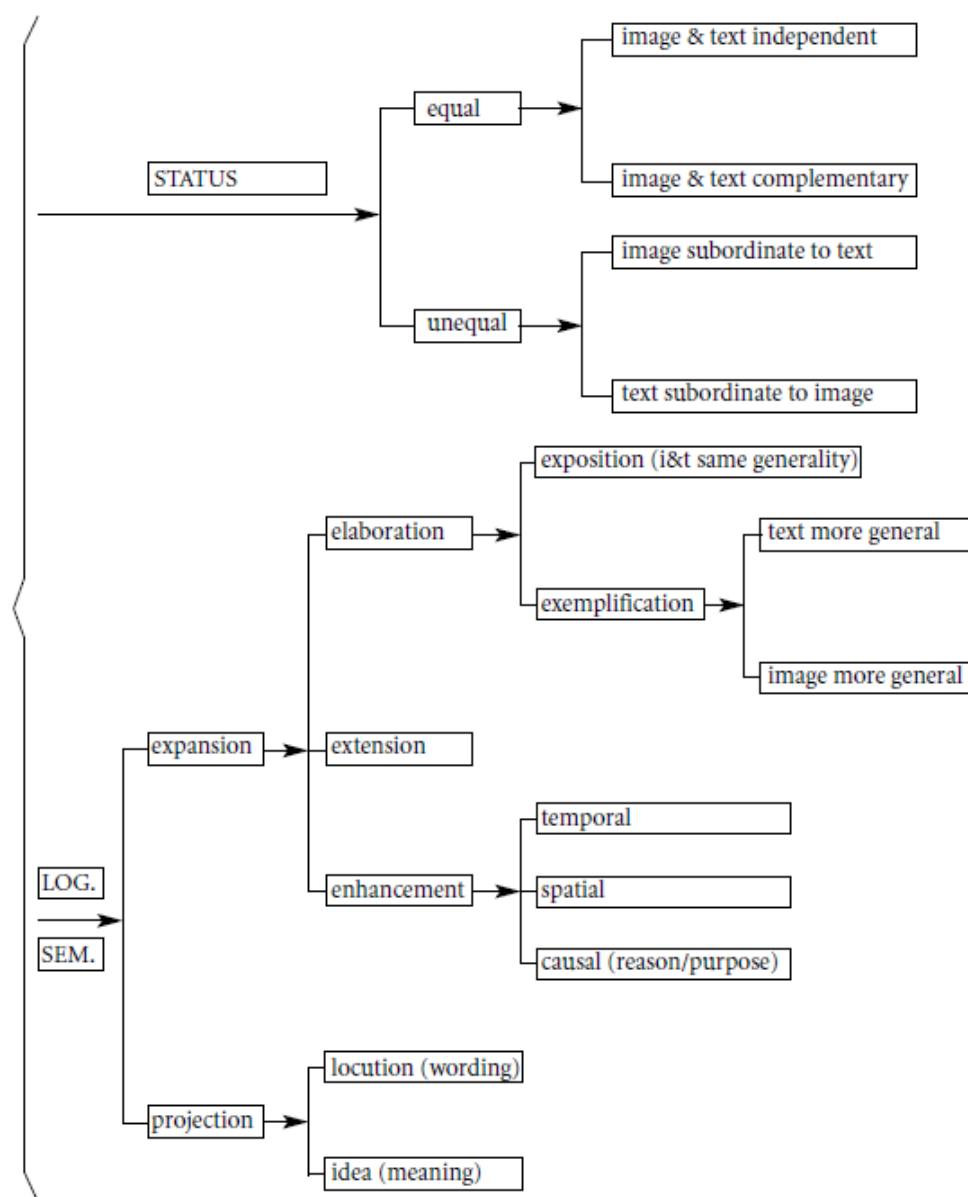


Figure 3. 4 A Network analysis of the combined status and logico-semantic relation

3.4.2 Observation of Data Analysis

According to Bailey (2007), the analysis of observation data is started at the moment the researcher starts to think about conducting the research. It continues during each stage of the research process, such as gaining entrée, building relationships, observing and interacting in the field. However, since observing multimodal data in the presentation is abundance; narrowing the transcription of classroom observation data at a certain episode or scene is necessary (Litosseliti, 2010).

Even though the study attends at analyzing the images and texts on the slide; the speech units is necessary to be analyzed to understand the full meaning of the topic presented by the students. The scenes that are transcribed and analyzed are when the students do an oral presentation in front of the class to gain the speech unit data. These scenes are transcribed by utilizing Jeffersonian Transcription Notation (Jefferson, 2004) which includes some symbols as shown in Table 3.1

Symbol	Name	Use
[text]	Brackets	Indicates the start and endpoints of overlapping speech.
=	Equal Sign	Indicates the break and subsequent continuation of a single interrupted utterance.
(# of seconds)	Timed Pause	A number in parentheses indicates the time, in seconds, of a pause in speech.
(.)	Micropause	A brief pause, usually less than 0.2 seconds.
. or ↓	Period or Down Arrow	Indicates the falling pitch.
? or ↑	Question Mark or Up Arrow	Indicates a rising pitch.
,	Comma	Indicates a temporary rise or fall in intonation.
-	Hyphen	Indicates an abrupt halt or interruption in the utterance.
>text<	Greater than / Less than symbols	Indicates that the enclosed speech was delivered more rapidly than usual for the speaker.
<text>	Less than / Greater than symbols	Indicates that the enclosed speech was delivered more slowly than usual for the speaker.
°	Degree symbol	Indicates whisper or reduced volume speech.
ALL CAPS	Capitalized text	Indicates shouted or increased volume speech.
underline	Underlined text	Indicates the speaker is emphasizing or stressing the speech.
:::	Colon(s)	This indicates the prolongation of an utterance.
(hhh)		Audible exhalation
? or (.hhh)	High Dot	Audible inhalation
(text)	Parentheses	The speech is unclear or in doubt in the transcript.
((italic text))	Double Parentheses	Annotation of non-verbal activity.

Table 3. 1 Symbols of Jeffersonian Transcription Notation

Moreover, after the speech units are transcribed, both visual and speech units are combined to examine how both image and text work. In transcribing the visual and speech data, this study adapts Zhao et al. (2014) framework for analyzing PowerPoint presentation. The transcript comprises two main vertical columns: the first indicates the gestural resources responsible for the coordination of semiotic resources at a given point in the presentation, while the second one shows the integration of the visual and speech units. However, as the study focuses on images and texts realized on PowerPoint presentation; the study adapts this framework for only transcribing the visual and speech units as shown at Table 3.2.

Semiotic resources integration	
Visual resources	Speech units
<p>2nd slide of Student 1</p>	<p>[Okay. <u>What</u> digestive system] [digestive system – A digestive system is a group of organs working together to process the food into energy and nutrition and make our body strong] [that's many systems] [eh, that's many organs that's (used)]</p>

Table 3. 2. Transcription framework of visual and speech units

This transcription is analyzed under the theory of representational meaning proposed by Kress & van Leeuwen (2006) and status and logico-semantic relation suggested by Martinec & Salway (2005) as presented in the previous section.