

CHAPTER III

RESEARCH METHODOLOGY

This chapter describes the procedures of the research to find out the answer to the research questions previously stated in chapter one. The chapter covers research design, data and source of data, data collection and data analysis.

3.1 Research Design

This research was qualitative in nature. The research had used the content analysis method to make replicable and valid inferences (see Krippendorff, 2004; Bell, 2001) from the visual images in the EFL textbooks. Kress and Van Leeuwen's (2006) theory of visual grammar was used as the analytical tool for analysing the representational, interactive, and compositional meaning of the visual images used in the EFL textbooks. The use of the visual grammar framework analysis had allowed the researcher to explore the pedagogical representation in the multimodality textbooks analysed.

3.2 Data and Source of Data

The data are in the form of visual images. The images were selected from two English textbooks: “Bahasa Inggris” textbook for 10th-grade students published by the Indonesian Ministry of Education and Culture based on the 2013 curriculum 2017 revision and “Pathway to English” textbook for 10th-grade students Kelompok Peminatan issued by Penerbit Erlangga based on the 2013 curriculum 2016 revision. The textbooks have been chosen because the textbooks are used as the teaching resource at many Indonesian high schools both for English language and English language and literature subjects, as explained in Chapter II. The two EFL textbooks have a total of 339 images. Below is the frequency and distribution of images in each chapter of the two EFL textbooks.

Table 3.1. Frequency and distribution of images in the Bahasa Inggris textbook

Chapter	Number of images
CHAPTER 1: Talking about Self	6
CHAPTER 2: Congratulating and Complimenting Others	34
CHAPTER 3: What are You Going to Do Today	8

CHAPTER 4: Which One is Your Best Getaway?	6
CHAPTER 5: Let's Visit Niagara Falls	22
CHAPTER 6: Giving Announcement	3
CHAPTER 7: The Wright Brothers	8
CHAPTER 8: My Idol	5
CHAPTER 9: The Battle of Surabaya	1
CHAPTER 10: B.J. Habibie	3
CHAPTER 11: Cut Nyak Dhien	3
CHAPTER 12: Issumboshi	4
CHAPTER 13: Malin Kundang	11
CHAPTER 14: Strong Wind	8
CHAPTER 15: You've Got a Friend	7
Total	129

Table 3.2. Frequency and distribution of images in the Pathway to English textbook

Chapter	Number of images
CHAPTER 1: Would You Fill Out This Form, Please?	1
CHAPTER 2: What Should I do?	13
CHAPTER 3: Whatever Will Be, Will Be	15
CHAPTER 4: Both You and I	18
CHAPTER 5: Why Were They Famous?	15
CHAPTER 6: Too Hot, Too Cold	41
CHAPTER 7: Calendar of Events	19
CHAPTER 8: Inventions Make Life Easier	63
CHAPTER 9: Why Is Water Like a Horse?	17
CHAPTER 10: Make a Peaceful World Through Songs	8
Total	210

Furthermore, out of 339 images, the research data consist of 30 images which were analysed in detail. The image selection was explained in the next part of the paper.

3.3 Data Collection

The data were collected through document analysis. Document analysis, according to Bowen (2009), entails skimming (superficial examination), reading (in-depth examination), and interpretation. This process incorporates elements of content analysis that is classifying information related to the research question.

This research collected the data from the “Bahasa Inggris” textbook for 10th-grade students and the “Pathway to English” textbook for 10th-grade students *Kelompok Peminatan*. First, the researcher counted the frequency and distribution of images in the book chapters of both the Bahasa Inggris textbook and the Pathway to English textbook. After that, each image was classified according to its category and sub-category in three levels of meaning by Kress and van Leeuwen (2006) (see Table 3.3). According to Bowen (2009), this step was the element of content analysis in which the data, in this case, the visual images, were organised into their category according to the representational, interactive, and compositional meanings of images. Furthermore, this step determined the visual images used as the data source, which were analysed in detail in Chapter IV.

Table 3.3. Three levels of meanings by Kress and van Leeuwen (2006)

Meanings		Category	Sub category
Representational	Narrative	Action processes	
		Reactional processes	
		Speech processes and mental processes	
	Conceptual	Classificational process	
		Analytical process	
		Symbolic process	
Interactive	Distance	Close-up	
		Medium shot	
		Long shot	
	Perspective	Horizontal	Frontal
			Oblique

		Vertical	High
			Low
			Eye-level
	Modality	Colour	
		Contextualization	
Compositional	Text-Image	Informative	
		Illustrative	
		Decorative	
	Information	Left/Right	
	value	Top/Bottom	

The images that serve as the data source were selected as they depict each category and sub-category of the three levels of meanings by Kress and van Leeuwen (2006) found in the EFL textbooks: representational meaning (narrative representation: action process, reactional processes, and speech and mental processes; and conceptual representation: analytical process and symbolic process), interactive meaning (distance: medium and long shot; perspective: horizontal and vertical; and modality: colour and contextualisation), and compositional meaning (text-image status: informative, illustrative, and decorative; and information value: left/right and top/bottom).

3.4 Data Analysis

The data analysis followed the procedures of the Interactive Model by Miles, Huberman and Saldaña (2014). This model has three components of data analysis, which come simultaneously after the process of data collection, namely: data condensation, data display and data conclusion. The Interactive model is chosen as it provides a well-documented process to help understand more clearly what is going on when the data were analysed in order to reflect, refine the methods, and make them more generally usable. The following figure illustrates the flow of the steps of analysis.

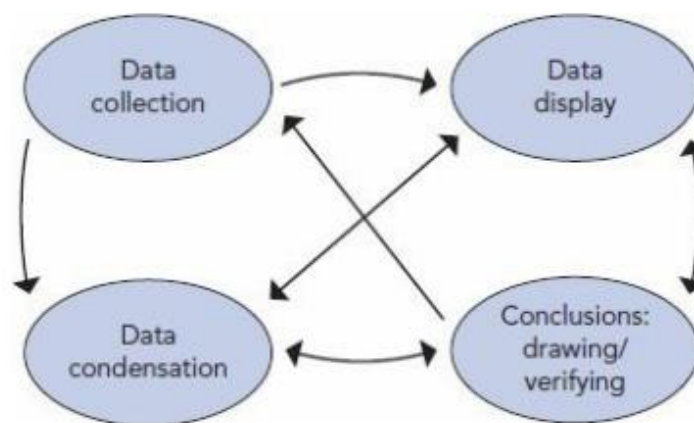


Figure 3.1. Components of Data Analysis: Interactive (*Miles, Huberman, & Saldaña, 2014*)

3.4.1 Data Condensation

Data condensation is the process of selecting, focusing, simplifying, abstracting, and/or transforming the data that appear in the full body of the data collection (Miles, Huberman, & Saldaña, 2014). Data condensation is a type of analysis that clarifies, groups, concentrates, discards, and arranges data in a way that allows for the drawing and verification of conclusions.

In this part of the research, the data were classified into three levels of visual meanings (representational, interactive, and compositional). The data condensation had been applied in order to focus on the point of research. Out of a large number of visual images in the two selected EFL textbooks, only two images per category and sub-category found in the textbooks were selected (see Table 3.4). This condensed data consists of a number of 30 data. The images are shown in Chapter IV.

Table 3.4. Frequency and distribution of the data according to its category and sub-category of three levels of visual meanings found in the textbooks

Meaning	Category	Sub category	Number of images
Representational	Narrative	Action processes	2
		Reactional processes	2

		Speech and mental processes	2
	Conceptual	Analytical process	2
		Symbolic process	2
Interactive	Distance	Medium shot	2
		Long shot	2
	Perspective	Horizontal	Frontal
		Vertical	Eye-level
	Modality	Colour	2
		Contextualization	2
Compositional	Text-Image	Informative	2
		Illustrative	2
		Decorative	2
	Information value	Left/Right	2
		Top/Bottom	2
Total			30

3.4.2 Data Display

Data display refers to an organized, compressed assembly of information that allows the conclusion of drawing and action (Miles, Huberman, & Saldaña, 2014). Displays help us understand what is happening and to do something according to the understanding. Good displays are important in qualitative analysis. According to Miles, Huberman, and Saldaña (2014), data displays can also come in the form of tables, graphs, and charts in addition to the old, extended text. This display is meant to present the data of the research in order to make the research understandable. In this research, the data displayed were the selected images from the textbooks (see Figure 3.2). The display data in the findings were also put in tables.



Figure 3.2. Example of frame size: long shot images (Left: Book I, p. 36; Right: Book II, p. 25)

3.4.3 Data Conclusion

The last step of the Interactive model is data conclusion. According to Miles, Huberman, and Saldaña (2014), drawing conclusions happen during the process of data analysis. In data collection, the data collected can present patterns that occur during the analysis. The data condensation is also considered to answer a certain pattern that is intended to be researched. However, the conclusion is completed once the data is fully collected, condensed and analysed.

In this research, the data that have been collected, condensed, and displayed were analysed according to the three levels of visual meaning by Kress and van Leeuwen (2006). Furthermore, the findings that have been explored then were discussed as to the relevance of previous studies and theories and the researcher's interpretations and suggestions to provide the conclusion for the research and to answer the research question. Below is the example of the data that have been collected, condensed, displayed, and analysed.

Visual:



Examples of Top/Bottom composition (Book II, pp. 179, 132, respectively from left)

Description:

The first image depicts cupped hands holding an apple at the top layout and a proverb "the rotten apple injures its neighbour" at the bottom of the image. The second image is a computer course advertisement. The upper section, which depicts a few people in front of computers, is the illustration of the computer course, while the lower section, which is the text, is the body of the advertisement.

Analysis:

In the first example, the image of hands cupping an apple, which according to the text-image status, falls within the illustrative type, represents the 'Ideal' as it depicts the general information. In contrast, the lower section, which is the proverb, describes the 'Real' or more practically oriented information. This means the image constructs the conceptual meaning as the proverb at the bottom carries specific information or something that the students learn following the chapter topic before addressing the general information that is the image of hands cupping an apple, which is more for the illustrative purpose only.

In the second example, according to Kress and Van Leeuwen (2006), regarding images in advertisements with Top/Bottom composition, the lower section tends to be more factual and practical, showing us "what is," while the

upper section tends to make some sort of emotional appeal and show us "what might be." Moreover, they explained that the opposition between 'Ideal' and 'Real' could also structure text-image relations. In this case, the top section is occupied by the image and the lower part by the text. Thus, the text is used to elaborate on the 'Ideal', which is the ideologically foregrounded part of the message that is delivered visually.

In this research, from a total of 339 images in the two selected textbooks, 148 (44%) images have a Left/Right position, and 191 (56%) images have a Top/Bottom position. According to Unsworth (2008), the Ideal/Real structures in textbooks, which are presented by the Top/Bottom positioning, convey specific meanings, that are concrete information, which is positioned at the bottom of the layout before addressing the more abstract, conceptual, and generalized information at the top. Therefore, the positioning of images in the two selected Indonesian senior high school EFL textbooks constructs the conceptual meaning of the text.