CHAPTER III
RESEARCH METHODOLOGY

In this chapter, the researcher will focus on the procedures that are going to be implemented in the research in order to find out the answer to the research question as stated previously in chapter one. This chapter elaborates on the research methodology applied in the study including; research design, data and source of data, data collection, and data analysis. Moreover, this chapter also discusses the data analysis procedure that was proposed by Miles, Huberman and Saldana (2014) that consists of four stages: data collection, data condensation, data display, and data conclusion.

3.1 Research Design

Qualitative content analysis is the research design which is employed in this research. Qualitative content analysis is considered appropriate and suitable for the present study since the focus of this research is analyzing visual images in EFL textbook through a multimodal perspective. It is supported by various researches that in analyzing linguistic and visual content access to a variety of research framework, qualitative content analysis is a multifaceted methodology (Serafini & Reid, 2019; van Leeuwen & Jewitt, 2001; White & Marsh, 2006). In addition, qualitative content analysis is used to analyze the qualitative data including informational contents of textual data (Lindgren, Lundman & Graneheim, 2020; Mayring, 2000). Through the use of this research design, it enables the researcher to analyze descriptive content as well as interpretative content (Graneheim & Lundman 2004; Graneheim et al., 2017).

Moreover, the content analysis will be concerned with the EFL textbook by adopting the framework which combined Halliday's Systemic Functional Linguistic and Kress and Van Leewen's Grammar Visual Design. The KvL (2006) model will be used as the analytical framework for analyzing the representational meaning of the visual images that appear in the textbook. This framework enables the researcher to explore the pedagogical representation in the multimodal textbooks that was analyzed.

3.2 Data and Source of Data

The data in this study are in the form of visual images from an English textbook: "English for Nusantara". The images were selected from the EFL textbook for 7th grade junior high school students that was published by the Indonesian Ministry of Education and Culture in 2022 based on the Emancipated curriculum. This textbook has been chosen since: first, the textbook is provided by the government and it is widely used as the teaching source at Indonesian junior high schools. As it is mentioned in the background of the study, "English for Nusantara" textbook is the latest textbook in accordance with the new curriculum in Indonesia. In addition, this textbook also was chosen as it contains visual modes (images) to answer the research question.

The visual images in the textbook were categorized into the table to find out the frequency and distribution of visual images of the textbook specifically on each chapter.

Table 3.1 Frequency and distribution of images in the English for Nusantara textbook

Chapter	Number of images
CHAPTER 1: About Me	67
CHAPTER 2: Culinary and Me	65
CHAPTER 3: Home Sweet Home	86
CHAPTER 4: My School Activities	44
CHAPTER 5: This is My School	56
Total	318

Furthermore, out of 318 images in all the aforementioned sections, the research data consists of 12 images which were analyzed in detail. The explanation of this image selection was presented in the following section of the paper.

3.3. Data Collection

The visual images as the data were collected from one EFL textbook titled: “English for Nusantara" for 7th grade junior school students published by the Indonesian Ministry of Education and Culture in 2022 based on the Emancipated curriculum. In collecting the data, the first step that the researcher obtained was categorizing the visual images to find out the frequency and distribution of images in each chapter in the textbook. The next step, the visual images will be classified into each category and subcategory of representational meaning according to Kress and van Leewen (2006) and present the data in the form of a table.

The images as the data source depict each category of representational meaning by Kress and van Leeuwen (2006): narrative representation (action process, reactional process, speech process, and mental process), and conceptual representation (classificational process, analytical process, and symbolic process).

Table 3.2 Representational meaning by Kress and van Leeuwen (2006)

Meaning	Category	
Representational	Narrative	Action process
		Reactional process
		Speech process and Mental process
		Conversion process
	Conceptual	Classificational process
		Analytical process
		Symbolic process

Furthermore, the classification of participants was needed. The participants in the images were categorized into each category and sub-category of representational meaning by Kress and van Leeuwen (2006) as can be seen in the table below.

Table 3.3 Representational meaning by Kress and van Leeuwen (2006)

Meaning	Category		Sub category	
Representational	Participant	Human	Age	
			Gender	Female
				Male
			Sociocultural portrayal	
		Non-human	Object	
			Animal	
			Setting and Location	

3.4 Data Analysis

In analyzing the data, this study followed the Interactive Model of data analysis procedures by Miles, Huberman, and Saldana (2014). This model consists of four fundamental stages of data analysis including data collection, data condensation, data display, and data conclusion. The first stage, the data collection was obtained as explained in the previous section. Furthermore, the choice of the Interactive Model is because this model provides a clear process that enables the researcher to gain understanding more clearly when the data are analyzed. The flow of data analysis used is presented in Figure 2.1

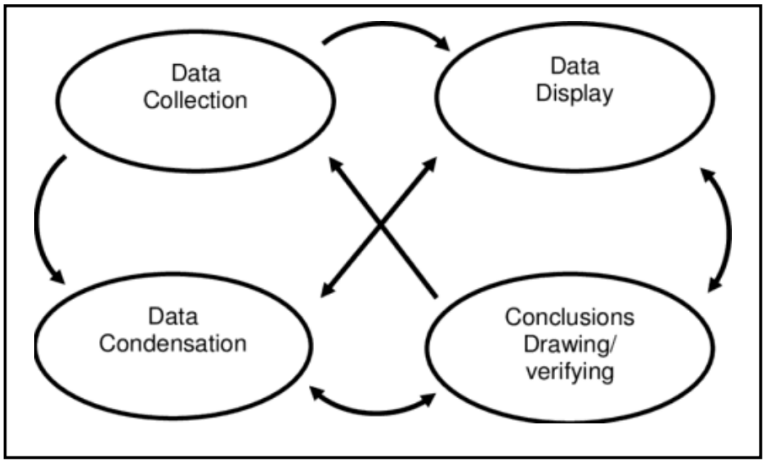


Figure 3.1 Data Analysis Stages: Interactive Model (*Miles, Huberman, & Saldana, 2014)*

3.4.1 Data Condensation

According to Miles, Huberman, and Saldana (2014), data condensation is the process of selecting, focusing, simplifying, abstracting, and/or transforming the data that appear in the full corpus of the data collection. Through data condensation, the conclusion of the research can be drawn and verified in which the data is clarified, categorized, concentrated, discards. and arranged in a particular way.

In order to focus on the point of research, the data condensation had been applied as it can be seen in the Table. In data condensation, the data were organized into each category of representational meaning. In total, this condensed data consists of 12 images as data. Other visual images as data were also represented as the example of each type of participant which was discussed in the next part. All of the images are shown in Chapter IV.

Table 3.4 Frequency and distribution of the data

Meaning	Category		Number of Images
Representational	Narrative	Action process	2

		Reactional process	2
		Speech and mental process	2
	Conceptual	Classificational process	2
		Analytical process	2
		Symbolic process	2
Total			12

3.4.2 Data Display

The second major flow of the analysis process is data display. Data display is an arranged, compressed information that concedes the conclusion drawing and action (Miles, Huberman, and Sadalman, 2014). The data display needs to be immediately accessible as well as compact form in order to merely focus on what is happening and draw conclusions or move to the next stage of data analysis. In addition, the data can be displayed in various types of forms including matrixes, graphs, charts, and networks (Miles, Huberman, and Sadalman, 2014). In this research, the data displayed from the selected visual images from the textbook as well as in the form of tables.

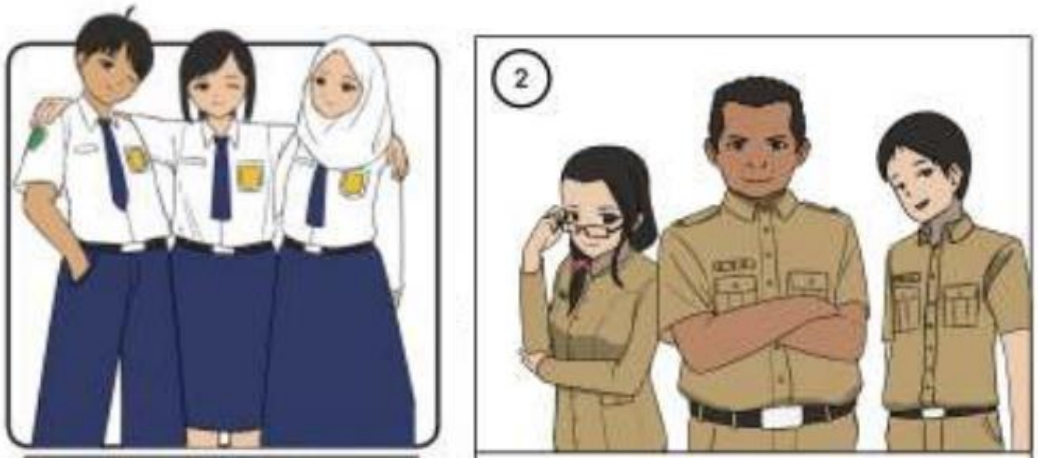


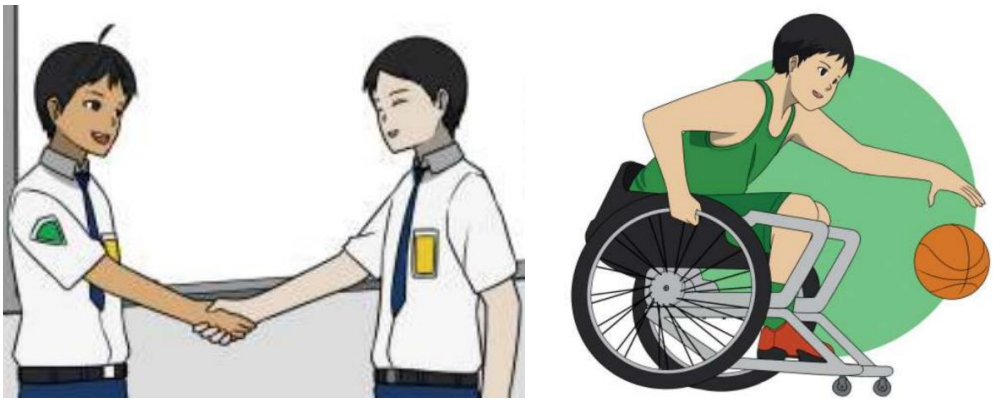
Figure 3.2 Example of images representing equal social roles (occupations) between males and females. (Left: p. 212; Right: p. 213)
Sources: Kemendikbud

3.4.3 Data Conclusions

The third stage of data analysis activity is conclusion drawing and verification. Generically, drawing conclusions starting to occur during the process of data collection in which the conclusions are still vague then increasingly explicit and grounded (Miles, Huberman, and Sadalman, 2014). Final conclusions appear when the data is completely collected, condensed, and analyzed.

In this research, the data have been entirely collected, condensed, displayed, and analyzed based on the representational meaning that was proposed by Kress and van Leeuwen (2006). Moreover, the findings were discussed with the relevance of previous studies and the interpretation of the researcher in order to answer the research question as well as provide the conclusion drawing and suggestions for the research. The example of the data in this research that have been collected, condensed, displayed, and analyzed can be seen in the following part.

Visual:



Examples of action processes (Left: p. 23; Right: p. 45)

Sources: Kemendikbud

Description:

The first image shows two male junior high school students shaking their hands in part of introducing each other. The second image is a wheelchair basketball player dribbling the basketball.

Analysis:

The first two examples above consist of two example images of the action process. There is a transactional process that occurred on the first image on the left side. The transactional process was when two male students were shaking hands. In this image, each character as participant had two roles as the 'doer' or the 'actor' and as the goal. First, when one's character offered his hand in the process of introducing himself to the other one; in this context the first character was as the actor while the second one as the goal, While at the same time, when the second one responded the first character, in this context, the second character was the actor and the first character was the goal. Additionally, the vector that appeared in this image is bi-directional since each participant had the role as the actor and the goal at the same time.

The second image showed a wheelchair basketball player dribbling the ball. The transactional action process in this image was proven by the appearance of the actor and the goal. The participants in this image include a basketball player and the ball. The Actor of the action is the wheelchair basketball player since he was in the process of touching the bouncing ball with his hand which the direction of his hand creates a vector and depicts an action process. More generally, the ball plays the role as the Goal since the vector of this action was directed at the ball.