CHAPTER III
METHODOLOGY

This chapter explains how the study was conducted. This chapter also encompasses subchapters including the research design, the method used, data source, data collection, and data analysis technique that was used in this study. This study used ideational intersemiotic complementarity analysis (Royce, 2007) which is performed to derive the verbal and visual meanings embedded within the selected comic strips as the source of data. Thematic analysis was employed to see which themes would appear from juxtaposing the data gathered with the selected frameworks used in this study. The analysis procedures of this study follow the steps by Creswell and Creswell (2017).

3.1 Research Design

This study aimed to explore how the ideational meanings are represented across the verbal and visual modes using the ideational intersemiotic complementarity framework proposed by Royce (2007). A qualitative design was used to form the interpretations of the data. Particularly, this study used a textual analysis to investigate the relationships between the verbal and visual meanings within the six analyzed comic strips. The data interpretations included verbal and visual modes and their relations (intersemiotically) in an EFL textbook for 7th grade junior high school students.

To do so, this study primarily used three frameworks. In seeking the verbal meanings, the study relied on the transitivity system of functional grammar proposed by Halliday and Matthiessen (2014), and visually, the study of 'Visual Grammar' by Kress and van Leeuwen (2021) was used. Furthermore, the ideational intersemiotic complementarity framework by Royce (2007) was also utilized to see the relations between the verbal-visual modes in the meaning-making.

This study focused on the ideational intersemiotic considering how it concerns with the readers experiences and how it deals with happenings and goings on within something, which in this case is comic strips. Moreover, Royce

assumes that both written and visual modes employ the unique features of their own semiotic systems to create meaning, and that there are some meanings that can only be expressed verbally and some of which can be expressed only through verbal language. In spite of that, it is also acknowledged that there are certain areas where they both have common meanings. Ideational meanings are mainly discussed and related with objects, entities, vivid activities, as well as the participants' experiences (doings, happenings), and characteristics (Bowcher & Liang, 2013; Royce, 2015) which is expected to be found in comic strips. Similar to lexicogrammar, visual grammar also serves as a representation of experiential patterns which "enables human beings to build a mental picture of reality, to make sense of their experience of what goes on around them and inside them" (Halliday & Hasan, 1976, p. 106, as cited in Royce, 2007).

This research follows a set of steps procedure of a thematic analysis, particularly a coding step procedure for visual images such as photographs, film, video, and drawing as suggested by Creswell and Creswell (2017) to categorize themes and codes that are used in determining the subchapters and subsections in Chapter IV . The steps are used mainly to seek important or interesting patterns that are called as *themes*. In seeking the patterns, *coding* plays a role to categorize and to summarize important concepts within a set of data. In this case, visual images (i.e., comic strips) were used and because visual data are becoming something that is more frequently used in qualitative research (Creswell & Creswell, 2017). Therefore, as the visual data have been collected, the detailed steps that were used in this study will be explained in the Data Analysis subsection.

3.2 Data Source

The object of this study consisted of six selected comic strips from five different chapters within the textbook. The comic strips themselves consist of both verbal and visual modes. As for the verbal modes, they are a narrative, and dialogue with speech balloons which are related to the visual modes. The visual modes consist of illustrations which depict the visual image of who are the people involved and what is happening in the context of a story which is being serialized

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according to the topic of the book chapter. The six analyzed comic strips are: comic strip 1.2 (part 1 & 2), comic strip 2.3, comic strip 3.1, comic strip 4.3, and comic strip 5.1, which will be simply elaborated below.

Figure 3.1 Comic strip 1.2 (p. 20–21)

The comic strip above discusses self-introduction, other introductions and how to describe one's hobbies as they become the first chapter's learning objectives; the comic is divided into two parts.
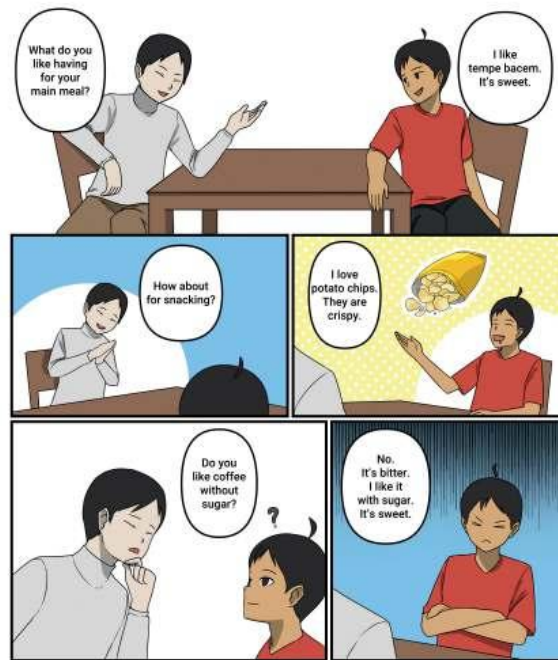
Figure 3.2 Comic strip 2.3 (p. 71)

The comic strip in Figure 3.2 is about describing one's favorite foods and drinks, the other comic strips in the second chapter of the book explain similar context regarding food.

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Figure 3.3 Comic strip 3.1 (p. 106)

The third comic strip discusses houses, rooms, and things inside them. The focus is to describe what is inside the house and the learning objectives expect students to have the ability to describe some familiar things they found in their houses.

Figure 3.4 Comic strip 4.3 (p. 174)

This comic strip talks about school activities, which in this case is about online classroom rules. The focus is mainly to help students understand instructions.

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Figure 3.5 Comic strip 5.1 (p. 206)

The last comic strip mainly discusses school as the main topic, specifically about school buildings and directions. The focus is to give students knowledge about school buildings and how to give and ask directions using English.

These comic strips were selected considering their verbal and visual content, how they are arranged in a unit of a chapter, as well as language skills embedded within them in an attempt to reach the learning objectives in the chapters. The language skills entailed in the analyzed comic strips are: (1) Listening, in comic strips 1.2, 3.1, and 5.1; (2) Reading, in comic strip 4.3 (3)

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Speaking, in comic strips 2.3; (4) Viewing, in comic strip 4.3. In addition to the content, these comic strips are also expected to meet the learning objectives or learning outcomes of the book chapters considering what the activity or happenings that occur within the comic strips.

3.3 Data Collection

In regards to answering the research question of this study, this research attempts a textual analysis to investigate how ideational intersemiotic relations are utilized in the comic strips and to justify their usage, comic strips from an EFL textbook titled *English for Nusantara* were collected as the source data because they consist of verbal and visual modes which will be doable for this research to conduct intersemiotic ideational analysis to scrutinize the intersemiotic relations.

Six comic strips from each of five chapters were selected. The rationale of the selection concerns how the comic strips from each chapter provide different topics and how many learning objectives are in a single comic strip. The main topics of the six comic strips from each chapter includes: (1) self and others introduction and hobbies; (2) one's favorite meals and asking/giving information about food; (3) rooms in a house and things in the rooms; (4) class schedules and school subjects; (5) asking and giving directions. The panels from each comic strip are labeled as P1, P2, P3, and so on. The starting point of how to read the comic strip is by using the traditional left to right reading path.
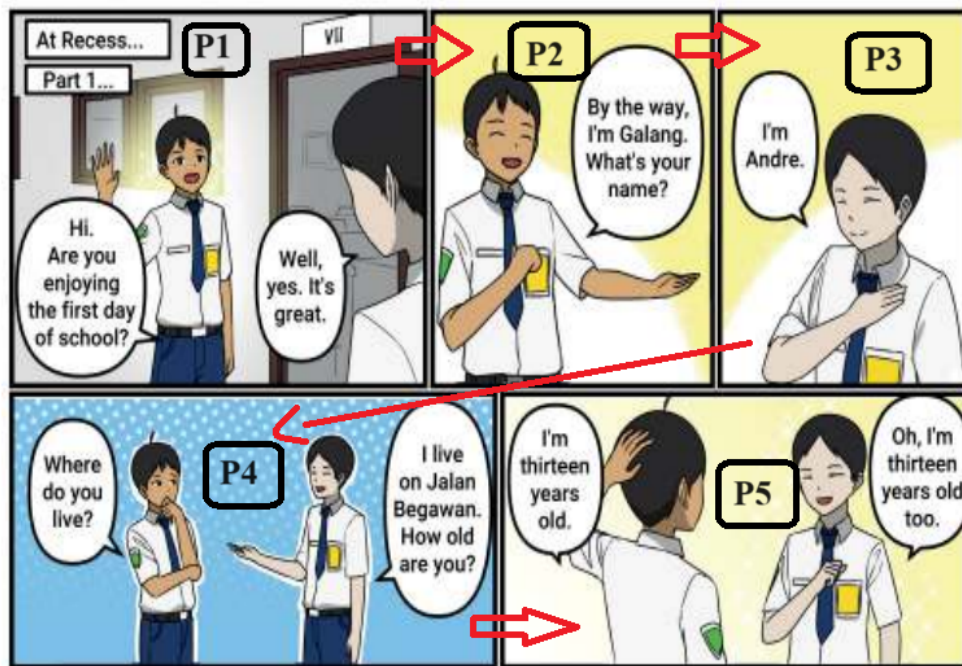
Figure 3.6 Example of left-to-right reading path

The reading path for the panels, as shown in Figure 3.1 shows how the story is carried out. In this instance, it starts from P1 as the starting point in which, traditionally, the speech balloon/mental bubble is usually read from left to right side, and it could be from the top balloon/bubble sometimes.

In terms of the modes within the comic strips, verbally, the processes can be obtained from the verbal text inside the speech balloons to see the represented processes being done by the represented figures/participants as described by Royce (2015). Meanwhile, the represented participants and circumstances can be acquired from the visual frames, which are the illustrations and the vectors embedded within the comic strips panels.

Furthermore, this study focuses on deriving the intersemiotic relations or lexical cohesion that can be found in the comic strips, as the results of the interrelation between the verbal and visual meanings, as cited in Royce (2007), they are: Repetition (R), Synonymy (S), Hyponymy (H), Meronymy (M), Collocation (C).

In addition to the data collection, the writer has collected six comic strips

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in total and specifically two comic strips from the first chapter and one comic strip from each of chapters 2 to 5 that covers most of the learning objectives in the said chapters. In regard to this study, Royce (2015) used only one cartoon as the chosen sample, while Haris et al. (2023) took the first two installments in a book series for children to be carefully analyzed. Some parts of the chapter do not include comic strips to cover the learning objectives, and instead, the chapter uses other media such as text (verbal only), worksheets and pictures (visual only). Additionally, the present study obtained permission from the main author to use comic strips for the purpose of the analysis. Hence an interview with the author (representing the book writers) was also conducted to enrich the data regarding the content of the comic strips that includes several things that further be elaborated in Chapter IV. Ary et al. (2010) suggest that interview guides serve as tools to gather insights from individuals regarding their emotions, viewpoints, and thoughts on a particular subject. These guides prove valuable in acquiring information by posing a limited set of questions about the topics researchers aim to explore. The interview in this study was conducted verbally. The interview results were read thoroughly before transcribing into a more readable interview sheet. Additionally, the interviewee name will not be disclosed, and rather it will be abbreviated as the initial of the word author "A" and the data will be presented in excerpts that can be located in Chapter IV.

3.3.1 Ideational Intersemiotic Complementarity

The data sources of this study were six comic strips taken from an Indonesian EFL textbook (specifically, the students' textbook or '*buku siswa*') titled *English for Nusantara* (Grade 7) which was published in 2022. This book aims to give a chance for 7th grade students to explore the use of English as a foreign language in various contexts. There are three steps that were used in collecting the data using an intersemiotic ideational analysis for this study.

The step begins with a selection of the comic strips of which one comic strip is selected from each chapter of the book (see Damayanti et al., 2022). The comic strips contain both verbal (as shown by the speech balloon & thought/mental bubbles) and visual modes (as shown by the visual frame; comic

drawings). The second step is deriving the Visual Message Elements (VMEs) which consist of the *Participants*, along with their *Attributes*. *Process* and *Circumstances* are also derived in order to answer the VME questions as provided in the naturalistic coding (see table 2.1). Furthermore, Royce (2007) states that the findings from the mentioned lexical are analyzed by using an approach suggested by Halliday and Hasan (1985) to describe the ideational cohesive relations between the modes in a multimodal text. These cohesive relations are: Repetition (R), Synonymy (S), Hyponymy (H), Meronymy (M), Collocation (C). The table below is taken from one of the analyzed comic strips which shows an example of the derivation of the VMEs from the Participants, Processes, and Circumstances.

Table 3.1 Examples of VME—*identification*: Who or what are the represented participants (Actor, recipient, goal)? What are their characteristics (Attributes)?

Visual message element	Visual transitivity role	Visual realizations
1st Panel Student 1 (left)	Participant (actor) + attributes	Illustration of a boy wearing a junior high school uniform and a blue tie with a pointed topknot hair facing another student. Interaction (vector) is formed between Student 1 and Student 2.
Student 2 (right)	Participant (actor) + attributes	Illustration of a boy wearing a junior high school uniform facing backward. Interaction (vector) is made between Student 2 and Student 1.

The example above seeks the participants involved in the occurrence and its characteristics (Attributes). The attributes of the participants, according to Royce, must be salient to help the identification of the VME to have significantly

represented participants. The type of visual processes of the happenings within the story in the comic strips are categorized as below.

Table 3.2 Examples of VME—*activity*: What actions do the participants take?

Visual message element	Visual transitivity role	Visual realizations
Wondering Students	Process (action, mental, non-transactional, mental)	Illustration of two students facing upward with excitement (mentally projected by a sparkling eyes)
Talking Student 1 and Student 2	Process (action, speech, transactional, verbal)	Illustration of a junior high school student staring at another student with excitement (mentally projected by a sparkling eyes)

Table 3.2 presents how the represented participants take actions in the occurrence and is used to answer the VME question of the visual-grammar item (*activity*). The processes rely on the visual process as Kress and van Leeuwen suggested. They are the action/reactional process, speech/mental process, and transactional/non-transactional process. To see where, who with, and by what means are the activities being carried out, another component of processes, as explained in Chapter 2, namely *Circumstances* will be elaborated as below.

Table 3.3 Examples of VME—*circumstances*: Where, who with, by what means the participants participate in the occurrence?

Visual message element	Visual transitivity role	Visual realizations
School	Circumstance: Locative	Illustration of a place where two students are

		standing symbolizing the place where the conversation occurs
Gloomy weather	Circumstance: Temporal	Illustration of a dark blue sky with no clouds symbolizing a Phenomenon as a means where a gloomy weather is happening (imaginary)
Fishing pond	Circumstance: Means	Illustration of an environment (imaginary) of a pond in which a boy is fishing.
A bucket	Circumstance: Accompaniment	Illustration of a steel bucket standing up beside a boy

The circumstances in this case depend on what kind of situations, whether it is a Locative (the setting), Temporal (time-related setting), Means (participants used by the Actor), or Accompaniment (participants not involved with the main action of the Actor).

Finally, after identifying all the VMEs within the comic strip, the next step is to analyze and to make a label for the words or clauses in the text to see if they have similar or different meanings by utilizing the sense relations Royce had suggested. This was done by examining both the verbal aspects (speech balloons/thought bubbles; utterance/phenomenon) and visual aspects (vectors) of the comic strips.

Table 3.4 Intersemiotic relations (*participants, processes, circumstances*)

Represented participants

VME	Text	Intersemiotic relations
Student 1	I like <u>school</u>	Collocation
	…it's my <u>hobby</u>	Collocation
Student 2	I like <u>mobile gaming</u>	Collocation

Represented processes

VME	Text	Intersemiotic relations
Excited students	I <u>want to</u> go fishing	Collocation
	That <u>sounds fun</u>	Collocation

Represented circumstances

VME	Text	Intersemiotic relations
School	I like <u>school</u>	Repetition
Fishing pond	I want to go <u>fishing</u>	Repetition
Gloomy weather	I want to go <u>fishing</u>	Collocation

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All of the Transitivity components above contain their own meanings in relation to verbal and visual texts. Thus, they are basically derived from what is seen in both modes and what type of the intersemiotic relations they have so they can produce meanings. The figure below presents a simple analysis from a sample comic strip (1.2 part 2). The intersemiotic relations have been visually highlighted with colors to avoid confusion: Red to mark relations of the participants; Green for processes/activity; Brown for Circumstances.
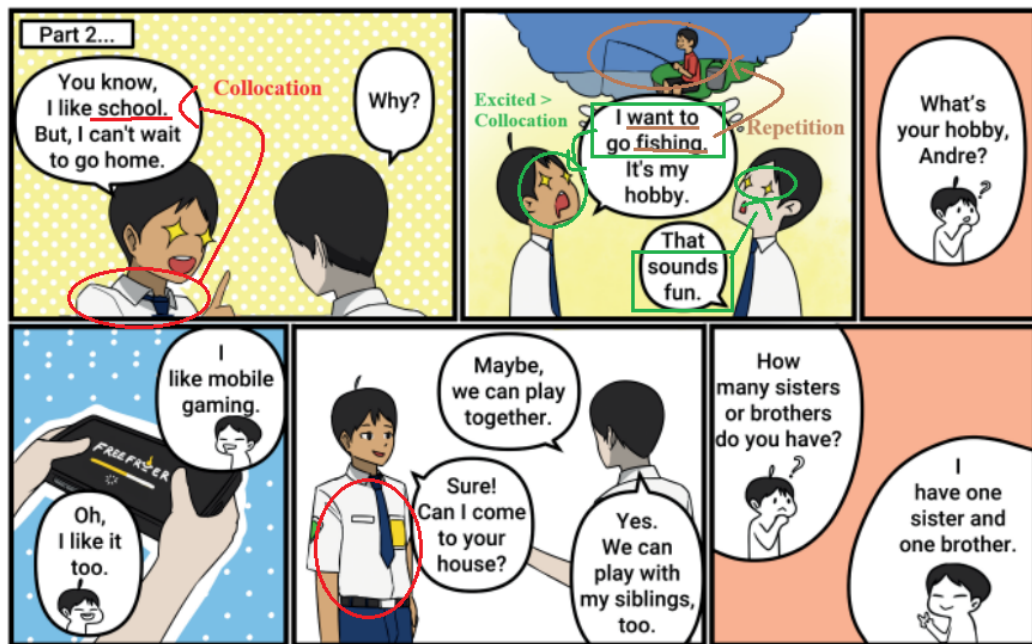

Figure 3.7 Example of ideational intersemiotic analysis from a comic strip

Based on the data collection technique used in the current study, the data analysis procedure will be elaborated in the following subchapter in order to create a comprehensive findings of the study which will further be explicated in Chapter 4: Findings and Discussions.

3.4 Data Analysis

In regard to the aim of this study, a thematic analysis was employed as the qualitative analysis method obtained by conducting a document analysis to answer the research question of this study. Thematic analysis is suitable to use since it is flexible and helps the writer to analyze patterns or themes in the analyzed

documents, in this case comic strips, for the purpose of seeking comprehensive explanation of the data which are the ideational intersemiotic verbal-visual meanings in six selected comic strips.

Creswell and Creswell (2017) defined thematic analysis as a systematic process for coding data in which particular statements are analyzed and categorized into themes that represent the essence of the subject under investigation. After analyzing the six selected comic strips using the framework proposed by Royce, a thematic analysis procedure for coding visual images as suggested by Cresswell and Creswell (2017) was used. There are five steps in coding visual images: (1) organizing and preparing the data for analysis, (2) reading all the data, (3) coding all of the data, (4) generating themes, and (5) representing the themes in a qualitative narrative.

After conducting several steps of coding in thematic analysis, Figure 3.8 demonstrated three main themes which originated from the data regarding the textual analysis utilizing ideational intersemiotic complementarity. This figure illustrates the stages of the data analysis.
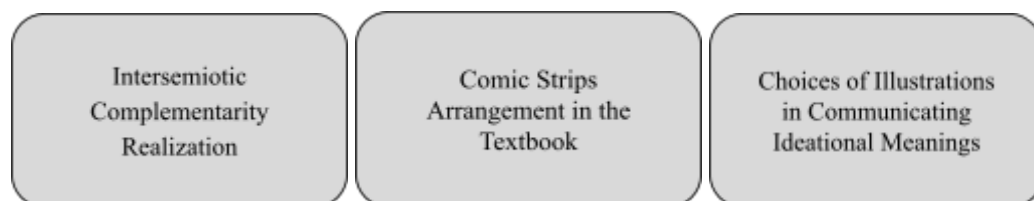

Figure 3.8 Thematic analysis mapping the themes from the data

As shown above, the first time is the realization of verbal-visual meanings from selected comic strips. The second is about comic strips arrangement. Finally, the choice of illustrations of the comic strips was also considered. In regard to the data analysis shown in Figure 3.8, an interview with one of the authors has been conducted with the result that primarily composed the three themes.

3.5 Concluding Remarks

This chapter has delivered the methodological aspects which covers the research design, research object, data collection, data analysis and interpretation

of the analysis, in regard to the research questions stated in Chapter 1, as well as the theories and related previous studies in Chapter 2 and later, the data analysis and interpretation of the study are presented in detail in Chapter 4.