CHAPTER III
RESEARCH METHODOLOGY

This chapter presents the methodological aspects of the study. It discusses research design, research site and participants, data collection, and data analysis. Research design focuses on the method employed in this study including its principles and characteristics. The research site and participants emphasizes on the place where the study takes place and the participant involved. The data collection section presents data types and data collection technique. The data analysis elaborates procedure of analyzing the data.

3.1. Research Design
To meet the purposes of the study, as mentioned earlier, this study employed a descriptive-qualitative case study research design. This research design was used because of several reasons. First, this study was aimed to get an in-depth understanding of how the implementation of mind mapping technique in the process-based approach can help eleventh grade students to write a Hortatory Exposition text in one senior high school in Bandung. Second, this study was also attempted to analyze the students’ responses toward the implementation of mind mapping technique in writing a Hortatory Exposition text. Third, the findings of this study were not aimed to make generalization to a population, but to develop an in-depth exploration of a central phenomenon (Stake as cited in Silverman, 2005; Gibbson as cited in Creswell, 2009; Creswell, 2012).

3.2. Site and Participants of the Research
This study was conducted in one formal senior high school in Bandung. The place was chosen for several reasons. Firstly, it was due to the accessibility and feasibility. The researcher was one of the teaching staffs in the school, the researcher hoped to get access easily. Secondly, it was related to the result of the study. It is hoped that the result of the study can give contribution to the school especially to improve the quality of teaching writing.
The participants who were involved in this research were the eleventh grade students. The approximate participants involved in this research were 25 students. Nine students representing three categories of writing ability, namely low-, middle- and high -writing abilities, were selected through preliminary observation. Then, their writing products were analyzed. The nine participants were also interviewed to obtain further information regarding their response towards the implementation of mind mapping technique in writing a Hortatory Exposition text.

3.3. Data Collection Techniques
Since this study employed qualitative design which embraces a case study approach, the data of this study was collected through three main techniques suggested in a case study approach. The three main techniques used in this study were classroom observation, written documents analysis, and interview.

3.3.1. Classroom observation
Classroom observation is the process of gathering open-ended, firsthand information by observing students and classroom during the teaching-learning activity (Creswell, 2012, p. 206). The classroom observation was conducted for four weeks from August 29th until September 20th 2014.

The classroom observation was divided into two phases, preliminary observation and implementation of mind mapping technique in the prewriting stage of the process-based approach. The preliminary observation was conducted in the beginning of the research, precisely in the first meeting. The purpose of the preliminary observation was to gain relevant data related to know students’ writing products prior to being introduced to the implementation of mind mapping technique, students’ attitude towards writing practice in the classroom, and students’ problem in writing a Hortatory Exposition text. The results were used as the basis on taking the sample of the three writing ability categories: low-, middle- and high -achievers. Meanwhile, the implementation phase was the phase in which mind mapping technique was implemented in the prewriting stage. The
implementation stage was aimed at putting into practice the mind mapping technique.

In this study, the researcher acted as the teacher. Thus, the researcher did participant observation. During the participant observation, the researcher delivered the materials regarding Hortatory Exposition text, introducing mind mapping technique, and delivering instructions how to develop a mind map into a Hortatory Exposition text. The researcher was participating in activities and recorded information by taking observation notes (Creswell, 2012, p. 214). In these observation notes (see Appendix B), the researcher recorded activities at the research setting including activities that have been done and the students’ responses during the implementation of mind mapping technique. The obtained data will be elaborated and discussed in Chapter IV in this paper.

3.3.2. Written document analysis

Written documents represent a good and valuable source for text (word) data for a qualitative study (Creswell, 2012, p. 223). The written documents analyzed were the students’ writing products consisting of diagnostic texts taken from preliminary observation and final writing products taken after the implementation of mind mapping technique in the prewriting stage of the process-based approach.

At the end of the implementation of mind mapping technique, all of students’ texts were collected. Eighteen writing products from nine students representing low-, middle-, and high-achievers were analyzed (see Appendix C and Appendix E). However, in interest of space, only three texts of diagnostic writings and three texts of final writings which belonged to low-, middle- and high-achievers were chosen to be analyzed and discussed in depth in chapter IV as representative of each category of achievements. The six sample texts (see Section 4.2) including three texts of diagnostic writings and three texts of final writings were analyzed to get in-depth understanding related to the impacts of the mind mapping technique towards students’ writing ability especially in generating and organizing ideas.

3.3.3. Interview
An interview is one of the most important sources of information (Burn, 1995, p. 319). Therefore, the interview was conducted to figure out students' responses towards the implementation of mind mapping technique in the process-based approach to help them to write a Hortatory Exposition text. The interview was conducted in two stages, including informal interview and formal interview. Informal interview was conducted during the classroom observation to seek students’ habit in planning before starting to write, students’ perception of planning stage in the process of writing, and students’ difficulty in writing a Hortatory Exposition text. In contrast, the formal interview was conducted at the end of the implementation of mind mapping technique that was recorded and transcribed. It was done in the form of individual interview.

The interview used semi-structured form of interview. The interview was applied to nine students who were representing each category of achievements by using interview guidelines which consist of 6 open questions (see Appendix G). In addition, the interview was conducted in Indonesian language to make them easier and more comfortable to answer the questions and to avoid misunderstanding as well.

3.4. Data Analysis Techniques

After all data were collected, as a single case study research, the data analysis was conducted into three stages, namely: classroom observation, written documents analysis, and interview. Each data analysis technique will be elaborated as follows.

3.4.1. Classroom observation

The description of the preliminary observation and the implementation of mind mapping technique were noted down using teacher’s observation field notes (see Appendix B). The observation field notes of the preliminary observation and the implementation of mind mapping technique were transcribed. Then, the researcher summarized the activities have been done that related to the study and matched the data with the research question. Finally, the data were related to the theories underlying this study (see Chapter II). The data gained during the
classroom observation were also used to strengthen the data regarding the students’ responses towards the implementation of mind mapping technique.

3.4.2. Written document analysis

The analysis of students’ writing products were divided into two steps. The analysis followed text analysis proposed by Christie (2005) and Emilia (2005). The analysis started with analysis of schematic structure and linguistic features of Hortatory Exposition texts as proposed by Christie (2005), Coffin (2006), Derewianka (2004), Droga and Humphrey (2003), Emilia (2010, 2012), Gerot and Wignell (1994), Knapp and Watkins (2005), Martin and Rose (2008), and Schleppegrell (2004). The analysis of the schematic structure of Hortatory Exposition text includes the analysis of idea organization, specifically in the argument stage to find out how the ideas are organized in order to make the arguments clear and convincing to support the writer’s point of view towards the issue being discussed. The analysis was on the basis of SFL Theme System including Theme choice and Theme progression pattern as proposed by Gerot and Wignell (1994), Halliday (1994), and Eggins (2004). The last was summarizing the diagnostic texts and the final writings in order to see the improvement the students made after implementing mind mapping technique in the process-based approach to teach writing Hortatory Exposition text.

3.4.3. Interview

The analysis of interview utilized descriptive analysis procedure (Sugiyono, 2008) by transcribing the audio recording, interpreting it and concluding students’ responses. Analysis of interview data was done in several steps. First, the data from interview were converted in written form. Second, the interview questions and students’ responses were categorized based on the focus of the study; students’ perception about planning stage in process of writing, the benefits of mind mapping technique the students gain from the implementation of mind mapping technique, and the difficulty the students encounter during the process of making mind maps. Third the data were interpreted to answer the research question. Finally, the interview data were concluded based on the theme of each
interview question proposed and were related the findings to the theoretical backgrounds of the implementation of mind mapping technique in the process-based approach to teach writing a Hortatory Exposition text.

3.5. Theme System as the Tool for Text Analysis

Theme system, as stated by Eggins (2004), concerned with how clauses in a text are organized to express textual meaning. Furthermore, the theme system has to do with the organization of information, and though this, with the organization of a larger text (Martin as cited in Emilia, 2005). The theme in a clause is the element which serves as the point of departure of the message, it is that with which the clause is concerned (Halliday, 1994, p. 37). The Theme, Halliday (1994) states, gives a clause its character as a meaningful message. In addition, the Theme can be identified as that element which comes in the first position in the clause (Halliday, 1994, p. 37).

3.5.1. Theme choice

The Theme can be categorized into three main categories: ideational, textual, and interpersonal theme (Eggins, 2004; Gerot and Wignell, 1994; Halliday, 1994).

A. Ideational Theme

The ideational or Topical Theme is usually (but not always) the first nominal group in the clause (Gerot and Wignell, 1994, p. 104). Topical theme may also be nominal group complexes, adverbial groups, prepositional phrases or embedded clauses (Gerot and Wignell, 1994, p. 104). In Topical Theme, the elements of Transitivity function occur in the first position in a clause, as: a participant, a process or a circumstance (Emilia, 2005, p. 88). The Topical Theme is divided into two categories; Unmarked and Marked Topical Theme (Eggins, 2004; Gerot and Wignell, 1994; Halliday, 1994). In the unmarked case the Topical Theme is the subject of the clause, while the Topical Theme which is not the subject is called Marked Theme (Eggins, 2004; Gerot and Wignell, 1994; Halliday, 1994). The examples of ideational theme are presented in the following table.

| Participant as the We | just need to spend a little time to go to |

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Theme

<table>
<thead>
<tr>
<th>Circumstances as the Theme</th>
<th>Nowadays,</th>
<th>the nearest fast food restaurant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideational Theme</td>
<td>Rheme</td>
<td>Fast food is all over in the world.</td>
</tr>
</tbody>
</table>

B. Textual Theme

Textual Theme relates the clause to its context (Gerot and Wignell, 1994, p. 105). In other words, it relates one text to another. It is in line with Eggins (2004), the textual Themes are elements “which do not express any interpersonal or experiential meaning, but which are doing important cohesive work in relating the clause to its context” (p. 305).

Textual Theme can be Continuatives and/or Conjunctive Adjuncts and Conjunctions (structural theme) (Gerot and Wignell, 1994, p. 105). Continuatives are “words which are used in spoken dialogue to indicate that the speaker’s contribution is somehow related to (continuous with) what a previous speaker has said in an earlier turn” (Eggins, 2004, p. 305). Continuatives are always in the beginning of a clause signaling that a new move is beginning, for example: well, OK, now, anyway, of course (Gerot and Wignell, 1994; Halliday, 1994). Conjunctives and conjunctions are elements which serve to link sentences together (Eggins, 2004, p. 306). Conjunctives and conjunctions relate the clause to the preceding text by providing a logical link between messages (Gerot and Wignell, 1994; Halliday, 1994). Textual themes may express relationships to do with cause/effect, time and sequence, condition, counterpoint, concession, etc. (Droga, 2005; Halliday, 1994). The examples of textual theme are presented in the following table.

Table 3.2 Examples of textual theme

<table>
<thead>
<tr>
<th>Moreover,</th>
<th>many people</th>
<th>like fast food …</th>
</tr>
</thead>
<tbody>
<tr>
<td>However,</td>
<td>many people</td>
<td>think fast food is the same as junk food …</td>
</tr>
<tr>
<td>Textual Theme</td>
<td>Topical Theme</td>
<td>Rheme</td>
</tr>
</tbody>
</table>

C. Interpersonal Theme

Interpersonal Theme is the interpersonal part of the Theme (Emilia, 2005). According to Emilia (2005), Interpersonal Themes in students’ texts can be categorized into:

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✓ The unfused finite (in interrogative structure), typically realized by an auxiliary verb, signaling that a response is needed;

✓ Some categories of Modal adjuncts, especially Mood Adjuncts and Comment Adjuncts.

The examples of interpersonal theme are presented in the following table.

<table>
<thead>
<tr>
<th>Modal adjunct as a Theme: Mood Adjunct</th>
<th>I think</th>
<th>fast food</th>
<th>becomes the most preferred modern food …</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comment Adjunct</td>
<td>Inevitably,</td>
<td>we</td>
<td>cannot eliminate the benefits of fast food</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ideational Theme</td>
<td>Topical Theme</td>
<td>Rheme</td>
<td></td>
</tr>
</tbody>
</table>

3.5.2. Theme progression pattern

As mentioned earlier, Theme makes contribution to the cohesion and coherence of a text. It has to do with Thematic development or Thematic progression. According to Eggins (2004), there are three patterns of Thematic progression that can be observed:

✓ Theme re-iteration: one basic way to keep a text focused (i.e. cohesive) is to simply reiterate an element. Eggins (2004) argues “repetition is an effective means of creating cohesion” (p. 324). The example of Theme reiteration can be seen below.

So, if we prefer fast food, we will be able to save time.

We don’t have [[to cook and to buy food ingredients.]]

✓ The zig-zag pattern: in this pattern, the content of the Theme of the second sentence or clause derives from the content of the previous Rheme, the content of Theme 3 derives from Rheme 2, etc (Emilia, 2005). The zig-zag pattern creates cohesion in the text by building on newly introduced information (Eggins, 2004, p. 325). The example of zig-zag pattern can be seen below.

.... it will be cheaper to buy fast food than to cook at home.

Cooking at home sometimes costs more than fast food price.
In addition, fast food price is also beneficial for many people especially students.

- The multiple-theme pattern: in this pattern, the Theme of one clause introduces a number of different pieces of information, each of which is then picked up and made Theme in subsequent clauses (Eggins, 2004, p. 325). The example of the multiple-theme pattern can be seen below.

... because of the presence of fast food, we will get **various advantages**

Firstly, fast food is **saving time**.

Secondly, fast food is also **cheaper**.

Thirdly, fast food **can be found anytime and anywhere**.

### 3.6. Sample of Text Analysis Procedure

As mentioned in the data analysis technique beforehand, students’ diagnostic texts and final writing products were analyzed on schematic structure and linguistic features of Hortatory Exposition texts. The analysis of the schematic structure of a Hortatory Exposition text included the analysis of idea organization, specifically in the argument stage, to find out how the ideas were organized in order to make the arguments clear and convincing to support the writer’s point of view. The analysis was on the basis of SFL Theme System including Theme choice and Theme progression pattern as proposed by Gerot and Wignell (1994), Halliday (1994), and Eggins (2004). In Chapter II, Hortatory Exposition text has been discussed and in this section a sample of a brief text analysis from one final student’s writing product was presented as the guideline to the analysis procedure of text analysis in Chapter IV.

<table>
<thead>
<tr>
<th>Table 3.4 An example of schematic structure analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Positive Sides of Fast Food</strong></td>
</tr>
<tr>
<td><strong>Thesis</strong></td>
</tr>
<tr>
<td>1. Fast food is a kind of food [[that (is) served quickly]].</td>
</tr>
<tr>
<td>2. Fast food is also quite popular in all circles of Indonesian society</td>
</tr>
<tr>
<td>3. because it is considered modern food</td>
</tr>
<tr>
<td>4. and can be found almost everywhere.</td>
</tr>
<tr>
<td>5. Moreover, many people like fast food</td>
</tr>
<tr>
<td>6. because some fast food restaurants are very hygienic.</td>
</tr>
<tr>
<td>7. However, many people think fast food is the same as junk food [[that is disadvantageous for people’s health]].</td>
</tr>
<tr>
<td>8. So, they think fast food is not good.</td>
</tr>
<tr>
<td>9. I don’t agree with their opinion.</td>
</tr>
<tr>
<td>10. I think</td>
</tr>
<tr>
<td>11. because of the presence of fast food, we will get various advantages.</td>
</tr>
<tr>
<td><strong>Argument 1</strong></td>
</tr>
<tr>
<td>12. Firstly, fast food is saving time.</td>
</tr>
</tbody>
</table>

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13. Because of the presence of fast food, we do not need to prepare food in the kitchen.
14. Preparing food in the kitchen is sometimes troublesome
15. and makes the kitchen dirty.
16. Moreover, because of fast food, we do not need to spend longer time to cook food.
17. We just need to spend a little time [[to go to the nearest fast food restaurant or to order the food via telephone.]]

**Argument 2**
18. Secondly, fast food is also cheaper.
19. If someone lives alone,
20. it will be cheaper to buy fast food than to cook at home.
21. Cooking at home sometimes costs more than fast food price.
22. In addition, fast food price is also beneficial for many people especially students
23. [[who have limited money to buy food.]]

**Argument 3**
24. Thirdly, fast food can be found anytime and anywhere.
25. Almost on every main road, fast food restaurants can be found along the way.
26. Moreover, we can order fast food anytime [[by ordering it via telephone or even online.]]

**Recommendation**
27. Based on the arguments above, I think
28. fast food becomes the most preferred modern food
29. because it has various advantages such as saving time, cheaper,
30. and (it) can be found easily.
31. Thus, I think
32. we should stop saying
33. [[that fast food is not good]]
34. since we feel its advantages in our daily life.

The text was a final writing product made by one student from high achiever group. The first analysis was focused on social purpose and schematic structure of the text. This text was obviously a Hortatory Exposition text which showed that the writer attempted to persuade readers that we should stop saying that fast food is not good since we feel its advantages in our daily life. Moreover, this text presented three distinct obligatory stages of a Hortatory Exposition text, namely a thesis, arguments, and a recommendation.

The analysis of the text’s schematic structure was then focused on each stage of Hortatory Exposition. The first stage was a thesis. The thesis presented the background information of the issued being discussed then the thesis stated the writer’s position. The text showed that the writers stated her position clearly in the thesis by stating *I think because of the presence of fast food, we will get various advantages.* Here, the writer gave preview of the arguments to follow, focusing on the advantages of fast food.

Then, the analysis moved to the argument stage. The text showed the writer had already successfully built up her arguments with relevant supporting reasons and evidence. The writer presented three arguments as presented in Clause 12:
Firstly, fast food is saving time, Clause 18: Secondly, fast food is also cheaper, and Clause 24: Thirdly, fast food can be found anytime and anywhere.

The first argument was supported by reasons indicating further details of the topic sentence. The topic sentence of the first argument was presented in Clause 12: Firstly, fast food is saving time. The next clauses were the reasons comparing the time needed to buy and order fast food with the time needed to prepare food at home.

The second argument began with a topic sentence realized in Clause 18: Secondly, fast food is also cheaper. The next elaborations indicated benefits of fast food, specifically in terms of its affordable price, for someone who lives alone and for students who have limited money to buy food.

The last argument began with a topic sentence presented in Clause 24: Thirdly, fast food can be found anytime and anywhere. The following clauses elaborated the topic sentence asserting “anytime and anywhere.” Clause 25 elaborated the point of “easily found”. Meanwhile, Clause 26 simplified the point of “easily ordered.”

The analysis of argument stage included the analysis of Theme choice and Theme progression pattern. In terms of Theme choice, generally, the writer mostly used the unmarked topical Theme to keep identifying the topic under elaboration as in: food fast, preparing food, we, cooking at home etc. In addition, the use of textual Theme in this stage was mainly concerned with the connectedness and logical relation of the text (Knapp & Watkins, 2005) such as: firstly, because, and, secondly, in addition, thirdly, moreover. In terms of Thematic Progression Pattern, the writer used multiple Theme, Theme reiteration and zig-zag pattern in this argument stage to maintain text’s connectedness (Emilia, 2010).

Then, the analysis moved to the recommendation stage. The recommendation stage summed up the arguments presented and reinforced the writer’s point of view to call for action (Derewinaka (2004, p. 76) as can be seen in: Thus, I think we should stop saying that fast food is not good since we feel its advantages in our daily life.

The schematic structure analysis then moved to the linguistic features of Hortatory Exposition text. In term of linguistic features, the writer showed her
capability to use linguistic aspects that are commonly used in a Hortatory Exposition text. Among others, the linguistic features could be found in this text included: the focus on a certain issue or topic that is Fast Food; the use of present tense as realized in Clause 5: many people like fast, Clause 19: someone lives alone, Clause 28: fast food becomes the most preferred modern food.; the use of mental verb as in Clauses 8 and 10: I think; they think…; the use of connectives to link ideas such as: firstly, because, and, secondly, in addition, thirdly, moreover; the use of modality to show the author’s attitude as presented in Clause 31: we should stop saying …; the use of passive sentence as realized Clause 3: …is considered modern food, Clause 4: …can be found almost everywhere.

Table 3.4 was one example of Hortatory Exposition text that was produced by on student: a high-achiever student. The student successfully presented three distinct obligatory stages of a Hortatory Exposition text, namely a thesis, arguments, and a recommendation. Specifically, in argument stage the student had already successfully built up her arguments with relevant supporting reasons and evidence. The organization of ideas in the argument stage was mirrored in a mind map made by the student (See Appendix D). The central image of the mind map represented the main topic of the subject (Buzan & Buzan, 1994) that was Fast Food. The curved main branches radiating from the central image represented the main arguments supporting the students’ stance towards the main issue. In addition, the keywords on the main branches also represented the main arguments, namely “saving times”, “cheaper”, and “anywhere and anytime”. These points were realized respectively in the first, the second, and the third arguments. The detail analysis of students’ writing products and its discussion are explained further in Chapter IV.

3.7. Concluding Remark
This chapter has presented the methodological aspects of the study. It has also discussed research design, research site and participants, data collection technique, and data analysis technique of this study. Furthermore, this chapter has elaborated an overview of theme system and conjunction system as the tool for analyzing students’ texts. Finally, the chapter has provided the sample of text
analysis from students’ writing product. After explaining the related methodological aspects of the study, the next chapter is going to discuss and analyze the data obtained from the research data collection technique.