

## **CHAPTER III**

### **METHODOLOGY**

This chapter presents: research design, setting and context, participant, instrument of the study, technique of data collection, technique of data analysis, and triangulation of data.

#### **3.1 Research Design**

In this research, the researcher implemented mixed methods which consisted of qualitative and quantitative method. According to Creswell (2015), “A researcher who uses mixed methods looks to many approaches to collecting and analyzing data (e.g., quantitative and qualitative)”. Mix methods also help the researcher to get the data in order to answer the best understanding of the research problem(s). Therefore, the researcher used mixed methods in answering the research questions. Hopefully it could help the researcher to give the best understanding of the research results.

This method is appropriate for identifying and describing student experiences and knowing more about the implementation of Mind Maps. This research is expected to be able to provide specific information about the total implementation of the Mind Map during learning.

This research used descriptive mixed method. The researcher chose the mix method in this study because the researcher considered that data processing would be maximized if using two forms of data processing

techniques, namely through questionnaires and interviews because of the covid 19 which caused the data to be less than optimal if only using one technique. It is used to describe students' perceptions related to the use of Mind Maps to enhance writing skills in class of x IPA SMA N 7 Konsel.

### **3.2 Setting and Context**

This research was undertaken at class X IPA of SMA N 7 Konsel, a school situated in Landono-Konsel, Southeast Sulawesi. The class comprises a total of 34 students. The selection of this particular educational institution was driven by the observation of students' notable enthusiasm for learning English, particularly in the context of utilizing Mind Maps as a tool to enhance writing skills. Recognizing the potential benefits of Mind Maps in facilitating students' learning experiences, the researcher opted to delve deeper into understanding the students' perspectives and encounters when employing the mind map strategy.

### **3.3 Participant**

The participation in this study was centered on students from class X IPA at SMA N 7 Konsel, where English lessons, including writing materials, are an integral part of the curriculum. The research focused on this particular class due to its alignment with the study's objectives. The study engaged a total of 15 students as participants, selected to provide a representative sample for in-depth exploration.

In this research, the researcher used purposive random sampling as a technique to get the participants. The researcher took samples randomly and not based on certain criteria, meaning that the researcher had selected participants from various backgrounds and did not pay attention to whether they were students who had the highest or lowest grades in learning achievement in class, all students had the same opportunity to be selected.

The participation in this study was centered on students from class X IPA at SMA N 7 Konsel, where English lessons, including writing materials, are an integral part of the curriculum. The research focused on this particular class due to its alignment with the study's objectives. The study engaged a total of 15 students as participants, selected to provide a representative sample for in-depth exploration. According to Sugiyono (2017), random sampling is the taking of sample members from the population which is carried out randomly without regard to the strata that exist in the population

Then, as elucidated by Singh (2003), random sampling emerges as the simplest and most prevalent method for sample selection. In this approach, each unit within the population is chosen with an equal likelihood, thereby characterizing the essence of simple random sampling. This method involves selecting 'n' samples from a population of size 'N' while assigning the same probability of selection to each unit.

Random sampling, in its essence, embodies the principle of fairness and equitable representation, which is vital for drawing accurate conclusions from a study's findings. The approach advocated by Singh (2003) aligns with the

concept that each member of a population deserves an equal chance of being selected, ultimately contributing to the validity and robustness of the research outcomes.

### **3.4 The Technique of Data Collection**

In order to gather insights into students' perceptions of Mind Mapping, the researcher employed specific instruments to facilitate data collection. These instruments were carefully selected to effectively capture participants' viewpoints on the subject. The data collection process utilized open questionnaires and online interviews as its primary methods. These instruments were chosen due to their capacity to provide in-depth and nuanced responses, allowing participants to express their thoughts and experiences comprehensively.

The first is that the researcher tried to understand and describe how the process of learning mind maps in the classroom is, then the researchers try to describe how students perceive the implementation of Mind Maps in the classroom.

The researcher distributed instrument questions to students and filled out questionnaires. The researcher used an online questionnaire, then the students were given a few days to answer the questions before they sent the results to the researcher. The results of the answers from students then the researchers describe as research results.

### 3.5 Instrumentation

In this study, data collection was conducted through the use of open questionnaires and interviews. The utilization of open-ended questionnaires aimed to encourage participants to provide more comprehensive information compared to closed-ended questions, as suggested by Birmingham (2003). Open-ended questions promote detailed responses that offer insights into participants' perspectives. These insights are particularly valuable for obtaining a deeper understanding of the subject under investigation.

The first instrument given was a question related to the implementation of Mind Maps in the classroom, the researchers tried to dig up information about what the implementation of mind maps was like in the classroom.

The second instrument given is a question that focuses on students' perceptions of the implementation of Mind Maps in the classroom, this aims also to see what impact students feel on Mind Maps in the implementation of writing in class.

In addition, the researcher also gave a questionnaire that had to be filled out by students, the questionnaire was in the form of 13 questions that had to be answered agree, strongly agree, disagree, or neutral, each of which has 5 -1 points; 5 (strongly agree); 4 (agree); 3 (neutral); 2 (disagree); 1 (strongly disagree); then the researcher calculates the percentage of answers from the results of students' answers which are then elaborated.

## 3.6 The Technique of Data Analysis

### 3.6.1 Questionnaire

To find out students' perceptions of the Mind Map, the researcher provided a questionnaire that would be assessed by students.

Wilson and Mc Lean (1994) stated that

Questionnaires are a widely used and useful instrument for collecting survey information, provide structured data, are often numerical, can be administered without the presence of the researcher, and are often relatively easy to analyze (as cited in Cohen et al, 2011).

The selected questionnaire for this study was a closed-format questionnaire comprising of 11 carefully crafted questions. The primary objective of this questionnaire was to gauge the students' reactions and insights regarding the practical implementation of Mind Maps within the classroom setting.

The closed questionnaire was adapted from a Likert scale style that describes SD (Strongly Disagree), D (Disagree), N (Neutral/Disagree), A (Agree) and SA (Strongly Agree). The researcher used a closed questionnaire because the researcher wanted students to directly state their responses and opinions about the influence of Mind Map in their writing process.

After the researcher got the score (X score) in every statement, the researcher timed it with one hundred. Then, the number (X number) resulted from the multiple was divided with the number of the whole students, which was fifty. Here was the formula:

$$\frac{\sum x}{\sum n} \cdot 100\%$$

$\Sigma x$ : total of respondents who choose the same degree of agreement in each statement

$\Sigma n$ : total of all respondents

The blue print of the questionnaire is presented as follows:

**Tabel 3.1 The Blue Print of the Questionnaire**

No	Elements	Theories	Statements
1	Motivate students to write	Doorn & O'Brien (2007) states that "Mind Map concept can be used most effectively to promote students motivation in writing".	Mind Mapping Makes me interested in developing my ideas.
2	Creativity in thinking	Buzan (2010) affirms that "Mind Mapping helps students to associate ideas, promote creative thinking".	Mind Map helps me to enhance my thinking skill.
3	Reduce difficulties in writing	Hayes (2000) confirms that "Mind Mapping can reduce difficulties in writing by giving students an organizing strategy to get them started".	Mind Mapping helps to reduce the difficulties in writing.
4	Improve ideas	Buzan & Mc Griffiths (2000) mentioned that "Using Mind Mapping is an excellent way to help learners organize their ideas".	Mind Mapping can help me to improve ideas and understand my writing information easily.

### 3.6.2 Interview

As previously stated, after collecting data in the form of a questionnaire, the researcher also interviewed several students online, who were randomly selected.

In this study, researchers used indirect interviews or written interviews. Indirect interviews, for example by telephone, chat and email (written interview) Basuki (2014).

Creswell (2015) explains that:

Interviews are as popular as observation in qualitative research. Qualitative interviews occur when the researcher asks open-ended questions or more participants in general and records their answers. The researcher then copied and typed the data into a computer file for analysis.

Creswell (2015) explains the use of interviews in qualitative research. Interviews are as popular as observation in qualitative research. Qualitative interviews occur when the researcher asks open-ended questions to participants or a larger group of participants in general, and then records their responses. The researcher then transcribes and types the data into a computer file for analysis. This process enables the researcher to gain an in-depth understanding of participants' viewpoints, experiences, and perspectives, as well as to identify thematic patterns that emerge in the collected data.

This interview was conducted online to find out how students make Mind Maps and express their opinions about the influence of Mind Maps in the writing process in class. Because in the questionnaire, students did not



have the opportunity to express more ideas or opinions, so this interview was conducted.

This written online interview was conducted with a flexible time following their schedule because it was conducted online so that the researcher only determined a few days to conduct the interview and send answers. Basically, researchers use interviews as an instrument for data collection because researchers use closed questionnaires, which means that participants can only answer directly whether they agree or disagree with the statement.



