

## CHAPTER III

### RESEARCH METHODOLOGY

This chapter discusses the method that were used in the study, subject, setting, and time. It also covers the research procedures, instruments, and analysis technique.

#### **3.1 Research Method**

The method that is conducted on this research is a qualitative research. Qualitative research is a situated activity that puts the observer in the world and consist of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach the world. This means that qualitative research study things in their natural settings attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them. (Denzin and Lincoln, 2011)

Other definition that also agrees with Denzin and Lincoln is the following:

Qualitative research begins with assumptions and the use of interpretive/theoretical frameworks that inform the study of research problems addressing the meaning individuals or group ascribe to a social or human problem. To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a natural setting sensitive to the people and places under study, and data analysis that is both inductive and deductive and establishes patterns or themes. The final written report or presentation includes the voices of participants, the reflexivity of the researcher, a complex description and

interpretation of the problem, and its contribution to the literature or a call for change. (Cresswell, 2013)

There is five approaches in a qualitative research; Narrative research, Phenomenology, Grounded Theory, Ethnography, Case study. In this research the researcher choose to use the Case Study. Because the researcher wanted to make a precise description or reconstruction from the case that the researcher chose.

### **3.2 Research Design**

A case study is an empirical inquiry that investigates a contemporary phenomenon (the “case”) in depth and within its real world context, especially when the boundaries between phenomenon and context may not be clearly evident. (Yin and Davis, 2007)

Case studies raise the question of how to select the case under study in a way that permits more general conclusions to be drawn from analyzing it. Case study also can capture the process under the study in a very detailed and exact way. They are not restricted due to an intended comparability and are able to fully use the potential of certain methods.

There are several fundamental lessons that can be conveyed by the case study:

1. It permits the grounding of observation and concepts about social action and social structures in natural settings studied at close hand
2. It provides information from a number of sources and over a period of time, thus permitting a more holistic study of complex social networks and of complexes of social action and social meanings.

According to Yin (2009) how you know if you need to use the case study method there is no formula, but your choice depends in large part on your question(s) the more that your questions seek to explain some present

circumstance, the more that the case study method will be relevant. The method also is relevant the more that your questions require an extensive and “in-depth” description of some social phenomenon. The researcher choose case study method because as a research method, the case study is used in many situations, to contribute to our knowledge of individual, group, organizational, social, political and related phenomena.

### **3.3 Research Procedures**

Bassey (1999, p. 65) provides seven stages in conducting case study research; (1) identifying the research as an issue, problem or hypothesis, (2) asking research questions and drawing up ethical guidelines, (3) collecting and storing data, (4) generating and testing analytical statements, (5) interpreting or explaining the analytical statements, (6) deciding on the outcome and writing the case report, (7) finishing and publishing. Moreover, Yin (2003, p.50) briefly suggests steps for organizing and conducting the case study research in three steps; (1) define & design, (2) prepare, collect, & analyze, (3) analyze & conclude.

In conducting this research, the researcher synthesize the procedures in conducting case from the information above the research applies six procedures:

1. The researcher got the permission from the school to do observations in Grade 4 Classroom
2. The researcher discussed with the teacher mentor and the field experience supervisor in choosing the research problem
3. The researcher prepared the data instruments to gather the facts and data from the school

4. The researcher conduct the data by inviting four teachers including the researcher to do the Observation checklist during the implemented of the method in the classroom, questionnaire for the students and conducted two interviews with the homeroom teacher and the math teacher for Grade 4.
5. The researcher collected all the data result from the field and analyzing the data using.
6. The researcher reports the data analysis and drew a conclusion of the research.

### **3.4 Research Subject, Setting, and Time**

#### **3.4.1 Subject**

The researcher got the opportunity to do the research in a Grade 4 class during the three and a half month of practicum. The researcher got the help from the field supervisor and teacher mentor while doing the research. The subject of the research is twenty students from grade four consist of thirteen girls and seven boy's age range from nine to ten with different personalities and learning styles, the researcher and three other teachers from different grades, the homeroom teacher and the math teacher.

#### **3.4.2 Setting**

The research took place in ABC school at Lippo Village, Tangerang, Banten. The curriculum is IB PYP (International Baccalaureate Primary Years Program) for students aged three to twelve years old.

### 3.4.3 Time

The research was conducted on August 1<sup>th</sup>, 2016 until November 3<sup>th</sup> 2016. The researcher took five weeks to observe as a pre-study because on the first week of school, the teaching and learning process in the class has not been settled for the students and they were still in the process of adapting with the teacher's classroom management. After that, the instruments were made by the researcher, validated by the math teacher for grade four, and the thesis supervisor.

The observation was conducted by using observation checklist researcher gave questionnaire for the students. It was done on the first period on that day. After all, an interview with the homeroom teacher was conducted on Wednesday, November 3<sup>th</sup>, 2016.

### 3.5 Data Collection Technique

Arikunto (2006) in his book *Prosedur Penelitian* stated that the method of data collection is an essential way that can be used by researchers to collect data.

The data collection technique is the most essential step in a research, because the main goal of one research is to get the data. Without knowing the clear data technique, the researcher will not able to get the correct data to support the research.

In qualitative research the data collection technique is done in natural setting, primary data source, and the focus is mostly on the participant observation, in-depth interview and documentation.

### **3.5.1 Pre study**

In this pre-study stage, phenomena that occur was determined by the researcher through observing homeroom teacher's teaching and learning process, reflecting on homeroom teacher's teaching and students' behavior during learning. The observation took place during homeroom teacher's teaching.

From the observation and analysis, the researcher found the phenomena that occurs in the class is an interesting phenomenon that is really new to the researcher. From the result of pre-study, the researcher concludes that the students 'enjoy the method really well.

### **3.5.2 Data Sources**

To make the research objective, the researcher conducted research by looking on three perspectives: homeroom teacher, other teachers (including the researcher) and students. Those three perspectives saw the same focus of the research: the Indicators of the benefits of a Station Rotation Method

The researcher and other teachers used observation checklist. The questionnaire was given for the students to see from their perspective and to see from the homeroom teacher's perspective, the researcher conducted interview.

### **3.5.3 Data Instruments**

To support this research, the researcher collected the data on the effectiveness of Station Rotation method by using forms of research instruments, such as observations Checklist, questionnaire, and interview.

#### **3.5.3.1 Interview**

Interview is “a meeting of two persons to exchange information and idea through question and response, resulting in communication and joint construction of meaning about a particular topic” (Esterberg, 2002, as cited in Sugiyono, 2015, p. 317). According to Hopkins (1993, as cited in Wiriaatmaja, 2009), the interview can be taken from mentor teacher, other teacher, or colleagues in order to find out the situation of the class from other perspectives. According to Rubin and Rubin focus of an interview is typically on what the interviewee has experienced and sees as important in relation to the issue of the study. The aim is to develop a fuller picture from interviewee’s point of view, rather than just simple, short, general, or abstract answers to the interviewer’s questions.

Esterberg adds that in its form, interview is divided into three types, they are:

1. Structured

The researchers have known exactly what information they will get, so that they have already prepared research instruments in the form of written questions followed with alternative answers.

## 2. Semi-structured

The researchers conduct the interview more freely and it aims to find problems more openly in which respondents are asked about their own opinions and ideas.

## 3. Unstructured

It is a free interview where the researchers do not use interview guides that have been arranged in a systematic and complete way. This allows the researcher flexibility in questioning the subject.

In this research, the researcher used the structured interview to see the perspective of homeroom teacher and the math teacher about the Benefits of Implementing Station Rotation method.

### **3.5.1.2 Questionnaire**

Questionnaires are written in many different ways, to be used in many different situations and with many different data gathering media. Questionnaire is defined as an interview in structured and written form in which the respondent can respond to the questions by writing or marking an answer sheet (Fraenkel & Wallen, 2006).



In a research the term questionnaire is used to refer both to questionnaire intended for self-completion by survey participants and to survey instruments intended for self-completion by survey participants and to survey instruments intended to be administered by an interviewer, either in a face-to-face interview or by telephone. It is clear to anyone undertaking data collection through a questionnaire survey that the questionnaire is an important element in its success. (Yin, 2009)

In this research the researcher use questionnaire was used to see the students' perspective on the benefits they get during the implementation of Station Rotation Method.

#### **3.5.1.3 Observation Checklist**

Observation checklist has another term for Observation schedule or Observation scheme. A form which is prepared prior to data collection that delineates the behavior and situational features to be observed and recorded during observation.

According to Creswell (2012, p. 213) “observation is the process of gathering open-ended, firsthand information by observing people and places at a research site.” In this research, the researcher used participant observation which means researcher participate in the situation or setting that observed (Fraenkel & Wallen, 2006). Frenkel & Wallen (2006) also states that when a researcher chooses the role of participant as observer, the researcher participated fully in the activities of the group being studied and also doing research in the same time.

The research use the observation checklist for the researcher and other teacher to see their perspectives on the fact that occur during the implemented of the method.

### **3.6. Data Analysis**

Qualitative data analysis is the interpretation and classification of linguistic (or visual) material with the following aims: to make statements about implicit and explicit dimensions and structures of meaning making in the material and what is represented in it. (Flick, 2014). Bogdan & Biklen, as cited in Boeije agree that data analysis is the process of systematically searching and arranging the interview transcripts, field notes and other materials that you accumulate to increase your own understanding of them and to enable you to present what you have discovered to others. Analysis involves working with data, organizing them, breaking them into manageable units, synthesizing them, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others.

According to Huberman, qualitative data analysis consist of three parts, they are: data reduction, data interpretation and conclusion.

#### **3.6.1 Data Reduction**

Data reduction is not separated from the analysis. Data reduction is defined as the selection process, focusing on

simplification and transformation of raw data that appears from written records on the field.

Data reduction activity will be continuously ongoing during the data collection process. When the data collection process takes place, it will certainly occur activity will be continuously ongoing during the data collection process takes place, it will certainly occur a reduction stages which can be in various forms, such as; a summary, encoding, searching themes, or create groups. Data reduction is a form of analysis that sharpens, classify, direct, dispose of unnecessary and organize data in a way that conclusions can.

### **3.6.1.1 Coding**

To be able to conduct logic models analytic data technique, the researcher used coding. Coding is the use of symbols that classifies a series of words, sentences, or paragraphs to be shorter and easier to remember (Wiriaatmadja, 2009). Coding is used in interview. The codes that used by the researcher are:

*Table of Coding*

<b>Category</b>	<b>Primary Code</b>	<b>Secondary Code</b>
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<b>Station Rotation</b>	<b>SR</b>
<ul style="list-style-type: none"> <li>• Creates Smaller Learning Communities within larger class</li> </ul>	<b>SR-CSL</b>
<ul style="list-style-type: none"> <li>• Employs a variety of tasks and activities to increase engagement</li> </ul>	<b>SR-EVA</b>
<ul style="list-style-type: none"> <li>• Allow students to engage with information</li> </ul>	<b>SR-ASE</b>
<ul style="list-style-type: none"> <li>• Make it possible for teachers to spend more time working directly with individual students</li> </ul>	<b>SR-TSI</b>
<ul style="list-style-type: none"> <li>• Improve learning outcomes</li> </ul>	<b>SR-ILO</b>
<ul style="list-style-type: none"> <li>• Individualize their teaching</li> </ul>	<b>SR-ITT</b>

**3.6.2 Data Interpretation**

Data interpretation is the set of activities to present the information arranged, it is to provide the possibility of making conclusion and taking action. Here are forms of qualitative data presentation: Narrative text, in the form of field notes, Graphs, network or charts, these forms combine the information arranged in a compact form to facilitate to see the results achieved

**3.6.3 Triangulation**

The researcher also uses triangulation. Triangulation is the use of more than one instrument to investigate a research found on the use of a

single research method. In qualitative research, data triangulation means that what you found can be verified by other sources. (Patton, 1999)

To avoid invalid data, the researcher used the triangulation for three instruments that used. According to Sugiyono (2013), triangulation is the use of multiple referents to draw conclusions.

In this research, the researcher used data triangulation which included three different instruments that the researcher used; they are observation, interview and questionnaire. The data were taken from different sources and done in varied ways and approaches. The researcher then describes the data and categorizes in which are the same, different and specific enough to support the focus of the research.

The data has been analyzed by the researcher are then able to produce a conclusion and finally there will be a member check within those three data sources to get final and valid conclusion.