

CHAPTER III

RESEARCH METHOD

This chapter discusses Research Design, Time and Setting, Source of the Data, Instrument of Collecting the Data, Procedure of Collecting the Data, Procedure of Analyzing the Data, and the last section is Data Interpretation.

A. Research Design

The objective of this research is to describe the physics teacher's problems in teaching the subject using English as the medium of instruction in bilingual classes of immersion program. Therefore, in this research, the writer used qualitative and descriptive type research to conduct this study.

B. Time and Setting

The writer conducted the research at MAN 1 Semarang (Islamic State Senior High School). MAN 1 Semarang (Islamic State Senior High School) is located at Brigjen Sudiarto street Semarang.

The students came from different region and they also have different intelligent, social background and characteristic. The program of learning activity is designed based on national curriculum. The researcher had collected the data on August 2013. The researcher needs a month in this research.

C. Qualitative Method

Considering of the purpose of the research and the nature of the problem, type of this research is qualitative research. “Qualitative research is all about exploring issues, understanding phenomena, and answering questions. While there's a whole industry engaged in its pursuit, qualitative research also happens in nearly every workplace and study environment, nearly every day”.⁵⁵

Nunan argues that “the qualitative research advocates the use of qualitative methods, concern with understanding of human behavior from the actors’ own frame reference, explanatory, descriptive and process oriented”.⁵⁶ Along with the previous definition, Creswell states that “qualitative research occurs in natural setting where human behaviors and events occur”. Creswell also agrees that qualitative research is descriptive when the researcher is interested in process, meaning, and understanding gained through words or pictures.⁵⁷

In line with this, Wragg also argues that “qualitative approach tries to probe beneath the surface of events, to elicit the meanings sometimes deeply buried, the interpretations and explanations, significance, and impact of classroom life”. Therefore, qualitative

⁵⁵ Lexy J. Moleong, *Metode Penelitian Kualitatif*, (Bandung: PT Remaja Rosdakarya, 2005), p.6.

⁵⁶ Nunan, D, *Research Method in Language Teaching*, (Cambridge: Cambridge University Press, 1992), p.4.

⁵⁷ Creswell, J. W, *Research Design Qualitative and Quantitative Approaches*, (London: Sage Publications, 1994), p.45.

research is not dealing with number or accounting, but rather with analyzing and interpreting a phenomenon of life. It describes the subjects' behaviors, explanations, concepts, characteristics, and also event and process oriented in the form of words.⁵⁸

Bryman has summarized the main influences on qualitative research as caning under five headings, those are:

1. Phenomenology

This is one of a number of generic terms to maintain the truth about something that can be obtained by catching the phenomena coming from research subject.

2. Symbolic Interaction

This approach has strong focus on the self especially on the symbols like language and gesture when engaging in interaction with others.

3. Verstehen

The principle of Verstehen is the observer might seek to recognize not only the teacher would use a different voice to convey various messages, but also whether that voice was interpreted as signaling impatience, anger, etc.

4. Naturalism

It is defined as the study of classroom that are often termed “naturalistic” settings which means that the observer tries to see the condition being observed as it really is.

⁵⁸ Wragg, E.C, *An Introduction to Classroom Observation*. (London: Routledge, 1995), p.50.

5. Ethogenic

A central feature of ethogenic approach is the understanding of sequences of interlocking acts by individuals in social life.

Finally, since this research was conducted to analyze the problems faced by physics teacher in teaching the subject using English as the medium of instruction in bilingual classes of immersion class program, the qualitative method used in this research conducts in the real condition or situation, where the physics teacher is conducting English teaching-learning process by using English as the medium of instruction in MAN 1 Semarang.

D. Descriptive Method

Considering the primary data would be obtained were physics teacher's problems in teaching the subject using English as the medium of instruction in bilingual classes of immersion class program, the writer used descriptive qualitative method.

Key defines descriptive research as follows: Descriptive research is used to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation. The method involved range from the survey which describes the status quo, the correlation study which investigates the relationship between variables, to developmental studies which seek to determine changes over time.

Besides, Gay argues that “a descriptive study determines and reports the way things are”. Hence, the data collected were utterances and conversations in teaching and learning process, all the data and may be the background of the data became the key of what had been investigated. The data also would be analyzed according to the conversations and utterances as long as the English teaching and learning process be held.⁵⁹

E. Source of Data

The primary source is where the main analyzed data is taken from the physics teacher who taught in the second grade classes of MAN 1 Semarang in the academic years of 2013/2014. The data was in form of the transcript of the physics teacher’s teaching-learning process voice recording in the classroom, teacher’s syllabus and lesson plans, and interview result. Meanwhile, the secondary source is the references, from which the supporting theories were taken, including books, dictionaries, and websites.

F. Techniques of Data Collection

In order to gather data the writer uses recording, documentation, and analysis document. The descriptions of each technique are given in the following:

⁵⁹ Gay, G, *Cultural Responsive Teaching: Theory, Research, & Practice*, (New York: Teachers College Press, 2000), p.153.

1. Recording

A tape recorder and blank cassettes are used to collect the data. The research method used to get the data study is recording. The use of recording was proper method since this study with spoken language. The recording is taken from discussion dialog spoken by the physics teacher of MAN 1 Semarang during the teaching and learning process. Through the tape recorder, the writer plays the cassettes containing the physical terminology which is used by the teacher for several times so that the writer could accurately analyze the data.

2. Documentation

After recording the teaching and learning process in a classroom context, the writer makes a transcript to be analyzed. The writer wrote all the speeches done and all physical terminologies used by the physics teacher.

3. Analysis Document

After making the data recording into transcript, the writer selected and arranged the physical terminologies used in the field notes. The field notes consist of numbers, terminologies, and the indicators of the use of the terminology. The following are the outline of the field notes.

Table 1
Observation Guidelines

No	Terminology	Concept		
		Frequency	Pronunciation	Concept
1	Acceleration	-	-	-
2	Alpha	13	Poor	Correct
3	Angular	-	-	-
4	Coefition of Friction	1	Good	Correct
5	Betha	1	Good	Correct
6	Equilibrium	1	Good	Correct
....				

The indicators of the terminology used are: frequency, pronunciation, and concept. Frequency means how often the physical terminologies mentioned or used by the teacher. While pronunciation, concerns how the teacher pronounce the physical terminologies. And the last is concept which concept correlates whether the terminology is used by the teacher properly based on the context.

G. Technique of Data Analysis

After collecting the data, the next step is analyzing the data. The step of analyzing the data consists of transcribing and identifying.

1. Transcribing

Based on the data collected from the recording of the direct observation and interview result, the writer puts the data into transcript form to give detailed description and explanation about how the teacher use English as the medium of instruction in delivering the subject, how he use physical terminology in

teaching-learning activities, and how they solve their problems. The writer then would like to write the teachers' problems occurred in teaching-learning process.

2. Identifying

Based on the data, the writer identified the problems or difficulties faced by the teacher in teaching the subject using English as the medium of instruction in bilingual classes of immersion program. The writer then identified whether the teachers used English or Indonesian language in making the syllabus and lesson plan. The writer also calculated the percentage of language use whether it is proportional or not based on the government regulation about language used in immersion program teaching-learning activities. Moreover, the writer also identified the teacher's difficulties in dealing with the use of English as the medium of instruction in teaching the subject including their pronunciation, grammar, and concept when he was conducting teaching-learning process.

H. Data Interpretation

In this study, the writer would like to interpret the data she got. Because it was descriptive study, the writer would describe all the data from the observation and interview she had conducted to find out what problems faced by the physics teachers in teaching the subject using English as a medium of instruction in bilingual classes of immersion program.

The collected data were in form of transcript of the voice recording, field notes, and interview result. From all instruments, the writer not only described physics teacher's problems in teaching the subject using English as the medium of instruction in bilingual classes of immersion program, but also described how the physics teacher solve his problems in teaching the subject using English in immersion classes.