CHAPTER III
RESEARCH METHODOLOGY

3.1 Research Method

This study used descriptive method. Descriptive method examines the situation in natural condition. Descriptive research involves identification of attributes of a particular phenomenon or the exploration of correlation between two or more phenomena (William, 2007; Cresswell, 2012). The focus in this study is to research something that can be primarily described by documenting the characteristics of phenomenon in natural setting without any manipulation (Johnson, 2001). This research has generally analyze the pattern and trends of how to integrate Islamic values towards science learning through teachers' lesson plan. This research mainly focus on learning objectives, opening activity, core activity, and closing activity.

3.2 Population and Sample

3.2.1 Population

Documents of science teachers' lesson plan in classification of living things topic grade seven (VII) from private integrated Islamic junior high school under the Ministry of Education and Culture in Bandung Raya (Bandung city, Bandung district, West Bandung district, Cimahi city, and Sumedang district).

3.2.2 Sample

The goals of content analysis is to gain external validity (Wamboldt, 1992), those to reduce the sampling bias this study gained the sample through probability sampling method. According to Creswell (2012), this study used multistage cluster sampling that is a quantitative sampling technique in which the researcher chooses a sample in two or more stages by choosing several cluster as sample those are Bandung city, Bandung district, West Bandung district, Cimahi city and Sumedang district then choose specifics sample which in this case are the schools from the cluster chosen.

The sample size for this study which is the number of science teachers' lesson plan documents in classification of living things topic on grade seven

(VII) are 40 lesson plans that comes from 9 private integrated Islamic junior high school under the Ministry of Education and Culture in Bandung Raya area. The sample distribution as seen on Table 3.1

Table 3.1 Sample Distribution

No	Area	School Code	Numbers of Lesson Plan
1	Bandung city	JHS 'B'	1
		JHS 'F'	12
		JHS 'G'	3
		JHS 'H'	4
2	Bandung district	JHS 'A'	1
		JHS 'C'	7
		JHS 'E'	4
3	West Bandung district	JHS 'I'	4
4	Cimahi city	-	0
5	Sumedang district	JHS 'D'	4
	TOTAL		40

Table 3.1 explained the sample distribution taken in this study. From 30 (thirty) schools being contacted, 9 (nine) of them responded and willing to be the sample in this study. The reason behind the others 21 (twenty one) schools who are not involved in this study are as follows

1) Not responding to the researcher contact
2) The lesson plan are not accessible to be analyzed

3.3 Operational Definition

a. Pattern of Islamic Values Integration on the Lesson Plan

Teachers' lesson plan is document of teachers' plan of teaching practice in each meeting. The part being analyzed in this research are learning objectives, opening activity, core activity, and closing activity. The integration is analyzed by using a rubric containing eight (8) indicators those are sources of values in Islam, categories of values in Islam, iqra, hiwar, targhib and tarhib, exemplary, nafsiyah, and interconnection-integration with each indicator contains 3 (three) sub indicators. The indicator classified as occurs if it is fulfilled at least 2 (two) sub indicators.

3.4 Research Instrument

In this study, it is necessary to use the instrument to gather data. The instrument that is used is a rubric of lesson plan analysis. Rubric is constructed by adapting the indicators appeared on previous research conducted about Islamic values integration towards science learning. The rubric is formed in order to check the patterns of Islamic values integration towards science learning in private Islamic junior high school in Bandung Raya, specifically in classification of living things topic.

The analysis table consists of the information of school code and lesson plan section code which are independently made, followed by the indicators and sub indicators of Islamic values integration in science learning. A score of 1 (one) is given if the sub indicator present in the lesson plan and 0 (zero) if it is not present. The rubric template as shown on Table 3.2 is used to see the occurrence of each indicators of Islamic values integration on teachers' lesson plan on classification of living things topic.

Table 3.2 Template of Rubric for Lesson Plan Analysis

Id. of Lesson Plan		**Analysis of Islamic Values Integration through Learning Objectives**																							
		Sources of Values in Islam			**Categories of Values in Islam**			**Iqra**			**Hiwar**			**Targhib & Tarhib**			**Exemplary**			**Nafsiyah**			**Inter connection-Integration**		
School Code	**Lesson Plan Section Code**	Kauniyah	Qauliyah	Hadith	Religious and Spiritual Values	Moral and Behavioral Values	Knowledge and Scientific Values	Studying Kauniyah verses related to classification of living things	Studying Qauliyah verses related to classification of living things	Studying hadith related to classification of living things	Dialogue about Kauniyah verses related to classification of living things	Dialogue about Qauliyah verses related to classification of living things	Dialogue about hadith related to	Confirmation of concept as	Reflection of learning as a warning	Moralizing or giving advice	Determine good example	Determine bad example	Invite students to think critical	Enhance students' spiritual intelligence	Construct students' noble character	Improve students' self-control	Informative	Confirmative	Corrective
JHS A	LO_A1																								
JHS I	LO_I4																								
	F																								
	%																								

(Source: Elhoshi et al., 2021; Malichatin, H. & Noor, F. M., 2021; Zein et al., 2021; Ramadhani et al., 2020; Shofa et al., 2020; Jamaludin, D. N., 2019; Harahap, A., 2018; Listyono et al., 2018; Muttaqin, A., 2018; Purwati et al., 2018; Zuhaida et al., 2018.)

3.5 Data Analysis

This study analyzed the learning objectives, opening activity, core activity, and closing activity written on the lesson plan by using content analysis in which it provides a systematic and objective means to make valid inferences from verbal, visual, or written data in order to describe and quantify specific phenomena with the purposes of this method is to reveal the focus of individual, group, institutional, or societal attention (Wamboldt, 1992). Stemler (2000) stated that content analysis is useful for examining trends and patterns in documents. Content analysis is far more than just counting, otherwise those are several steps to be done based on Wamboldt (1992), as follows:

1) Selecting the unit of analysis
2) Creating and defining the categories and code
3) Pretesting the category definitions and rules
4) Assessing reliability and validity
5) Analyzing the data

The percentage of occurrences of each sub indicator on learning objectives, opening activity, core activity, and closing activity is calculated by the formula:

$$\frac{f}{40} \times 100\%$$

To get the percentage of sub indicator occurrences, the frequencies of sub indicator occurrences (f) are divided by the total number of lesson plans which is 40 (fourty) times 100%. Then to count the number of the indicator occurrences, the number of each sub-indicator related are summed up and stated by the total frequencies ($\sum$f) and the total percentage is the summed up of related sub indicators percentage.

Lawshe's CVR (Content Validity Ratio) is used to test the validity and reliability of the instrument being used in this research. This method is used to measure the agreement among raters toward a specific item. The value of CVR ranged from -1 (negative one) to 1 (one) with the more valid and reliable the instrument, the bigger the value of CVR. The research instrument is indicated as essential if more than half of the raters agreed. It means that the value of CVR needs to be more than 0 (zero), while the value 0 (zero) of CVR represent that half of the

raters agreed, lastly if less than half of the raters agreed then the value of CVR will be lower than 0 (zero) (Lawshe, 1975). The formula of CVR is shown as follow,

$$CVR = \frac{n_{e-\frac{N}{2}}}{\frac{N}{2}}$$

(Lawshe, 1975)

The data recorded can be a subjective judgment of an individual (i.e. researcher), therefore it is important to establish the agreement between the data from researcher and other judgments (Tinsley & Weiss, 2000). Interrater agreement will extent to which different raters assign the same precise value for each item being rated (Gisev, et.al., 2013). The agreement in this study came from three raters which are junior high school, science teachers. The judgment result is analysed with CVR (Content Validity Ratio).

3.6 Research Procedure

In order to make the research conducted systematically, there are three main stages arranged those are preparation stage, implementation stage, and completion stage which can be explained as:

a. Preparation Stage
   1) Identifying the problem.
   2) Reviewing the literature about Islamic values integration through teachers' lesson plan
   3) Setting research questions and objectives.
   4) Choosing the study design.
   5) Preparing the research instrument.
   6) Validating research instrument
   7) Revise research instrument based on experts' judgment

b. Implementation Stage
   1) Collecting teachers' lesson plan from Islamic private junior high school
   2) Writing down the appearance of the indicator as “1” (one), and “0” (zero) for the absence of the indicator.
   3) Calculating the percentage of each indicator occurrence in the worksheets.

4) Testing the data based on the interrater agreement by using CVR (Content Validity Ratio)

c. Completion Stage

1) Constructing the final result of lesson plan analysis.
2) Obtaining results and discussion.
3) Drawing conclusion based on the data analysis.
4) Finalizing research report

A flowchart of the research procedure is made to describe the flow of this study. The flowchart can be seen as on Figure 3.1.

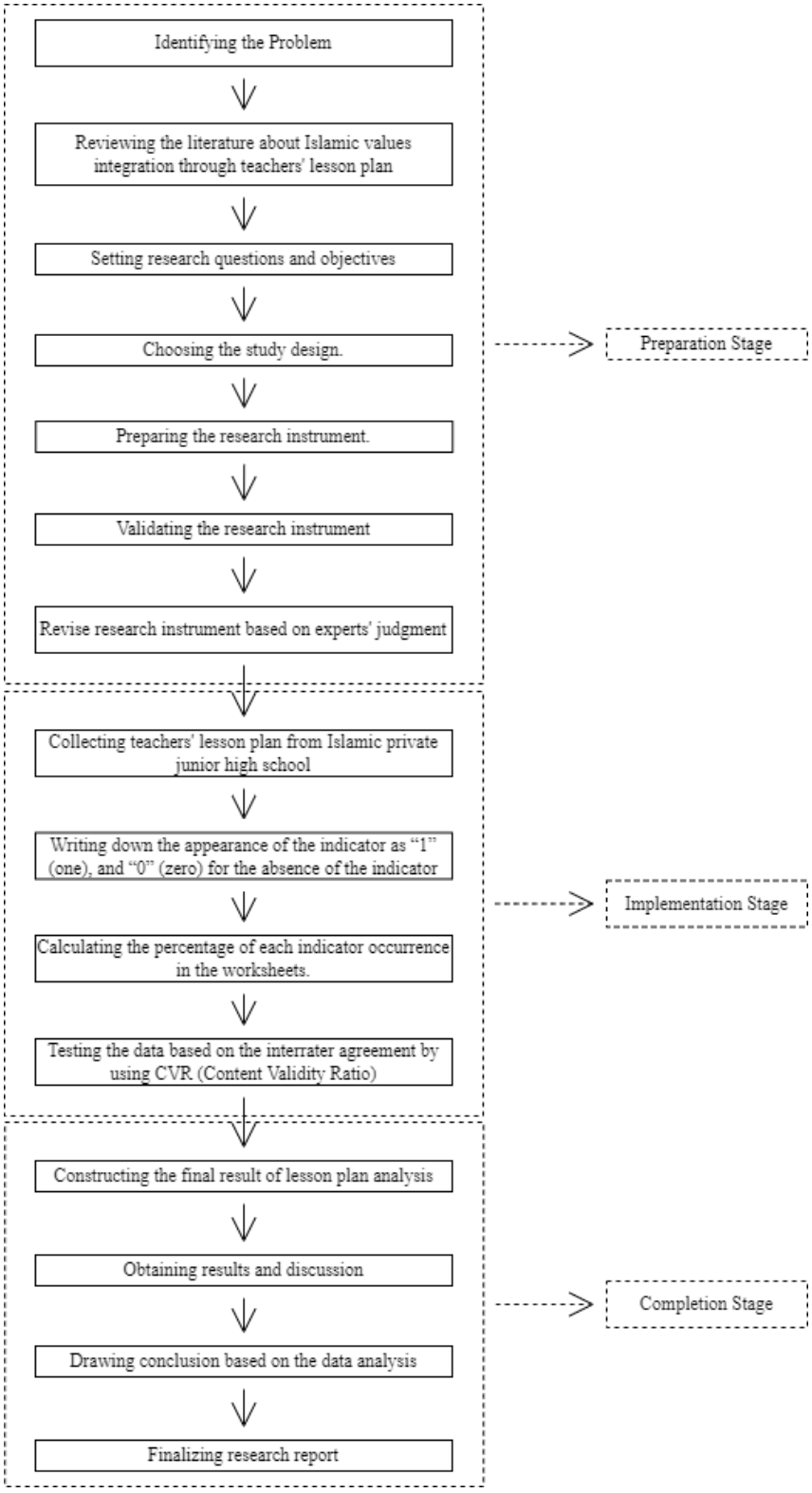

Figure 3.1 Flowchart of Research Procedure