

CHAPTER III

RESEARCH METHODOLOGY

A. Design and Approach of The Research

This chapter outlines the research methodology of this research. The research was conducted in two phases and the research methodology will thus be discussed under the two phases. The first is collected by using a quantitative approach. Questionnaires are distributed to respondents; teachers of Madrasah Aliyah Negeri (MAN) in Kudus. The second is followed by qualitative approach. Interview is done to key person or teacher who has big experiences in supervision.

The design of this research is mixed method convergence design with both quantitative and qualitative data collection and analysis. Creswell¹²⁸ explains that mixed method is the research which describes a phenomenon involves combining or integration of qualitative and quantitative research data in a research study. It means that this research describes effective supervision from teachers' perspectives of MAN in Kudus. Moreover, Arikunto¹²⁹ says that a descriptive research is non-hypothesis research. So, this research does not need a hypothesis. It can be explained by this following figure:

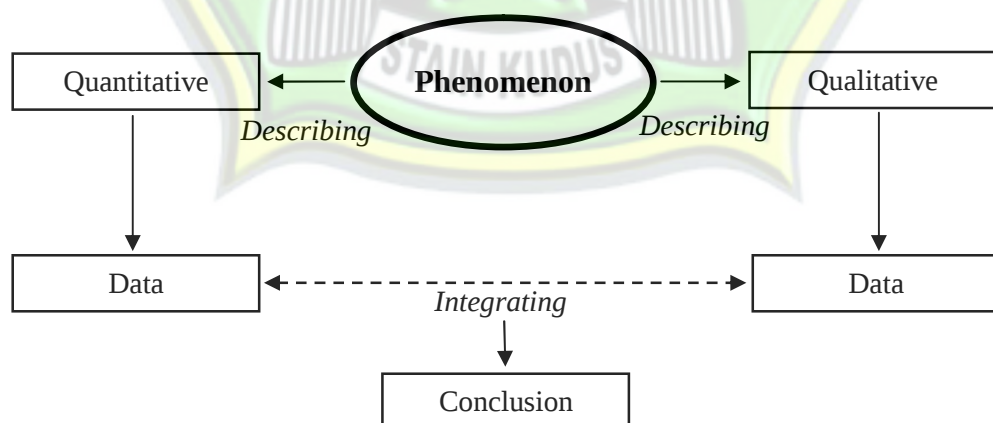


Figure 3.1 Design of Mixed Method

¹²⁸Cresswell, John W, *Research Design; Qualitative, Quantitative and Mixed Methods Approaches 4th Ed.*, SAGE Publications, Inc. California, 2014, p. 43.

¹²⁹Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktek*, Rineka Cipta, Jakarta, 2006, p. 245.

Firstly, survey research is done in quantitative part. It provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population¹³⁰. From sample results, the researcher generalizes or draws inferences to the population. Moreover, “Survey research (also called descriptive research) uses instruments such as questionnaires and interviews to gather information from groups of subjects”¹³¹. In survey research, investigators ask questions about peoples’ beliefs, opinions, characteristics, and behavior. Surveys may also investigate associations between respondents’ characteristics such as age, education, social class, race and their current attitudes or beliefs towards some issue. Importantly, survey research does not make causal inferences, but rather describes the distributions of variables for large groups¹³².

Secondly, phenomenological research is used for qualitative part. It is a design of inquiry coming from philosophy and psychology in which the researcher describes the lived experiences of individuals about a phenomenon as described by participants¹³³. The purpose of the phenomenological approach is to illuminate the specific, to identify phenomena through how they are perceived by the actors in a situation¹³⁴. In the human sphere this normally translates into gathering ‘deep’ information and perceptions through inductive, qualitative methods such as interviews, discussions and participant observation, and representing it from the perspective of the research participant(s). This description culminates in the essence of the experiences for several individuals who have all experienced the phenomenon. In phenomenology, it inquirers attempt to build the essence of experience from

¹³⁰ Cresswell, John W, *Opcit.* p. 41

¹³¹ Ary, D., Jacobs, L. C., Razavieh, A., & Sorensen, C., *Introduction to research in education (7th Ed.)*. Canada: Thomson Wadsworth Publishers, 2006, p. 31

¹³² Cresswell, John W, *Opcit.* p. 42

¹³³ *Ibid.* p. 43

¹³⁴ Stan Lester, *An introduction to phenomenological research*, Stan Lester Developments, UK; Taunton, 1999, p. 1.

participants. This design has strong philosophical underpinnings and typically involves conducting interviews.

The reason why the researcher uses this design of the research is not only describing data by using both of quantitative and qualitative methods, but also is turning toward the systematic convergence of databases from both of methods. “*Convergence*” means point of finding from two or more sources¹³⁵. It is done to make the data collected more valid and to minimize the errors that may happen during this research conducted, compare different perspectives collected from both quantitative and qualitative data, and explain quantitative result by following up qualitative data. So, the idea of integration in different types of research designs emerged.

B. Research Location

This research is conducted in two schools in Kudus city. The first is MAN 01 Kudus. It is located in Conge Street, Ngembalrejo village, Mejobo district. The population is really large. It is around 4000 students in this academic year. The teachers are 64 persons¹³⁶. Then, the second is MAN 02 Kudus. It is located in Prambatan Kidul village, Kaliwungu district. The population is really large. It is around 6000 students in this academic year. The teachers are 72 persons¹³⁷.

The teachers in those schools are coming from different characteristics of environments and backgrounds of education. They graduated from many kinds of universities. They have various points of knowledge. Absolutely, they are seeing something (in this case; effective supervision) from different points of views.

Moreover, those schools run supervision every year continuously. It is based on the researcher’s first observation last month. He got information from each of vice head masters and sees the note of the result of the supervision. He adds some information about the prospect and vision of

¹³⁵ Cresswell, John W, *Opcit*, p. 44

¹³⁶ www.man01kudus.sch.id, accessed on Wednesday, 23 November 2016

¹³⁷ man2kudus.sch.id, accessed on Wednesday, 23 November 2016

MAN in Kudus 5 years later. That is why he chooses those schools as research location. It is interesting to know what the teachers of MAN see about their own supervision process.

C. Subject and Object of The Research

According to Sugiyono¹³⁸, subject of the research is the actor of an action. It plays very vital portion in this process. The success of this research is on his/her hand. Then, the object of the research is the victim of the action. Data is taken from the object. It means data cannot be found out, if there is no object of the research. Based on that explanation, the subject of this research is the researcher himself and the object of this research is the teachers of MAN in Kudus.

D. Data Source

This research uses open questionnaires as the instrument to collect the data from the sources. Arikunto¹³⁹ states that data are result of research's collecting, both in facts and numbers. The data of this research are the results or the answers taken from the teachers of MAN in Kudus by using questionnaire (Quantitative) and interview (Qualitative). Then, Arikunto¹⁴⁰ also says that the data source refers to the object from which the data are obtained. The data sources are all of teachers of MAN in Kudus. They are called "respondent" (Quantitative) and "informant" (Qualitative).

There are two kinds of data used in this research; prime data and complement data. The primer data is the data which mainly used to get information and complement data is the data which to add and complete information to main data¹⁴¹. The prime data of this research is the result of open questionnaire and the result of interview with the respondents while the complement data is from the documentation.

¹³⁸ Sugiyono, *Opcit.* p.145

¹³⁹ Suharsimi Arikunto, *Opcit.* p.96

¹⁴⁰ *Ibid*, p.107

¹⁴¹ *Ibid*, p.112

E. Technique of Collecting Data

The study is conducted in two phases and the methodology used in each phase is discussed separately. The process of collecting data can be figured out on following figure:

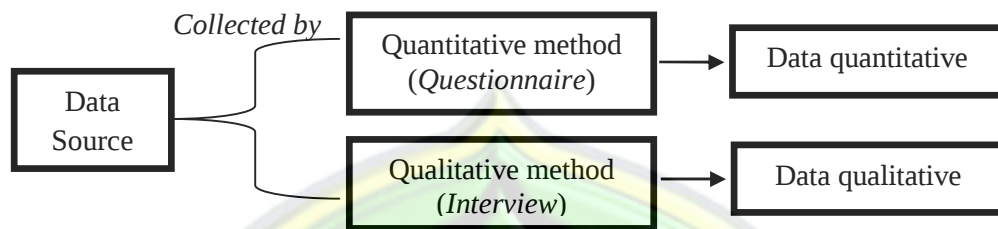


Figure 3.2 Technique of Collecting Data

1. Quantitative Method

In the first phase, a quantitative approach is used. Questionnaires were mailed to all of teachers of MAN in Kudus (Appendix 1). In this research, the researcher uses mixed questionnaire (open and close) in order to find data directly from the respondents. “Open” means; respondent is free to express his views and the ideas, used in making intensive studies of the limited number of the cases and not provide any structure for the respondent’s reply. “Close” means; responses are limited to the stated alternatives, one of the alternative answers is simply “YES” or “NO” and respondent cannot express his own judgment. It is a technique to collect data that give the respondents a list of questions or written questions to answer by the respondents. Arikunto¹⁴² explains, “Questionnaire is a written question which is used in order to get information from the respondents in form of report about something that they understand”.

In this research, the questionnaire is divided into 4 seasons or parts. In the beginning, it contains demographic data or background of the respondents, includes; identity, gender, age, employment status, teaching experience and dedication in the school/ madrasah. The second is about

¹⁴² Suharsimi Arikunto, *Opcit*, p. 114

effectiveness of supervision of MAN in Kudus. The third is related to teachers' perspectives of MAN in Kudus to effective supervision. And, the last is effective model supervision based on teachers' perspectives.

Before separating the questionnaire to the respondents, this instrument must be examined the validity and the reliability. Firstly, the content is checked to make sure weather item of questionnaire suitable with the research objectives or not. Then, it is tested to 20 students of STAIN Kudus who have done teaching practice (7th Semester or higher) and measured by using this formula.

$$\frac{(N \cdot \sum x) - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}}$$

Notes:

- r_x = the coefficient of the validity between odd and even score
- x = the score of the odd number items
- y = the score of the even number items
- N = number of sample
- $\sum x$ = sum of x scores
- $\sum y$ = sum of y scores
- $\sum x^2$ = sum of squared x scores
- $\sum y^2$ = sum of squared y scores

The result is “Medium Validity” (Appendix 3). Based on the criteria below:

Table 3.1 Criteria of Validity

Criteria	
Excellent Validity	0,81 - 1,00
High Validity	0,61 - 0,80
Medium Validity	0,41 - 0,60
Low Validity	0,21 - 0,40
Not Valid	0,01 - 0,20

(Source: Ali¹⁴³)

After that, the reliability of the questionnaire is tested. Then, it is tabulated in Microsoft Excel and measured by following statistical formula (Pearson).

¹⁴³ Ali, Mohammad, *Penelitian Kependidikan: Prosedur dan Strategi*. Bandung. Angkasa, 1984, p. 101

$$r_i = \frac{2.r_b}{1 + r_b}$$

Note:

r_i : Value of Reliability

r_b : Score of coefficient of the reliability

The result is 0.94 or “Perfect Reliability” (Appendix 4). Based on the criteria below:

0,00 up to 0,20	: the reliability of coefficient item is not reliable
0,21 up to 0,40	: the reliability of coefficient item is low/ weak
0,41 up to 0,60	: the reliability of coefficient item is medium
0,61 up to 0,80	: the reliability of coefficient item is high
0,81 up to 1,00	: the reliability of coefficient item is perfect

(Source: Ali¹⁴⁴)

Figure 3.3 Criteria of Reliability

The reliability of items is perfect. So, the questionnaire sheet can be understood well and it is easy to fill down by respondents. No ambiguity is in the instruments.

After that, the researcher distributed the questionnaire sheet to teachers of MAN 01 on Saturday, 19th of November 2016 and MAN 02 on Wednesday, 23th of November 2016 in Kudus. Then, he collected the questionnaire on next two days after distributing it.

2. Qualitative Method

In the second phase, a qualitative approach is obeyed. Some of teachers who selected as key person in Madrasah Aliyah Negeri (MAN) in Kudus are interviewed to find out data needed in this research from the informant. It is done in order to explore information more deeply to determine the validity of the final result. Moreover, it gives enough opportunity to him to explore information as many as possible. The researcher uses semi-formal interview and records it. It also has a guide-line (see Appendix 2) to determine the interview process not out of context to topic of discussion.

¹⁴⁴ *Ibid* p. 103

In qualitative research, validity and reliability are also done. But, it is used different way. It is done to examine the data collected, not the instrument. The researcher uses credibility test; maximizing self-diligence, triangulation; source and time and member check; Mr. Jaiz Jamalullael. He also uses dependability test. He exactly did this research in real location; MAN 01 and MAN 02. It proves by the letter of statement from those both of schools (Appendix 8).

As the researcher has explained before that he uses 2 kinds of data premier and seconder. Questionnaire and interview are to find out premier data. Then in carrying out secondary data, he use observation and documentation. Observation is used to find out preliminary data in order to open the first information. The result can be used to start exploring more data needed. Documentation is used to carry out information directly from the research location, includes; relevant books, rules, reports of activities and data which related to this research.¹⁴⁵

F. Technique of Analyzing Data

After data collected, the researcher runs analysis step to process the data in order to use to answer the problems mentioned in chapter I. There are some steps to process data:

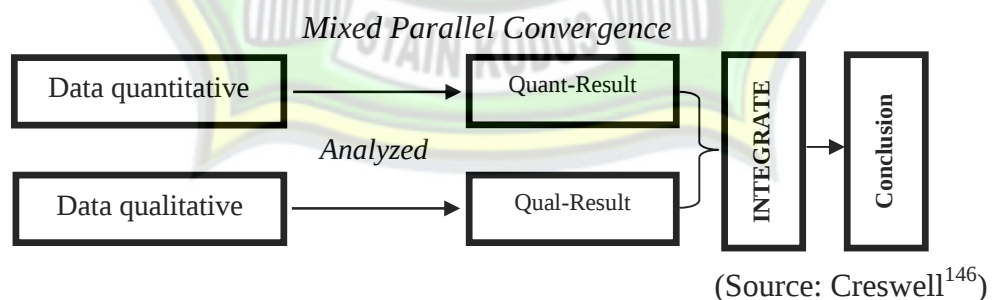


Figure 3.4 Technique of Analyzing Data

From the previous step (Data Collecting), both of quantitative and qualitative data are analyzed.

¹⁴⁵ Arikunto, Suharsimi, *Opcit*, p. 118

¹⁴⁶ Cresswell, John W, *Opcit*. p. 294

The researcher continues to analyze the data into 3 phases of technique.

1. Quantitative Technique

In the first phase, he recapitulates the quantitative data on some tables. Firstly, the researcher is tabulating the questionnaire season 1 about background information data below.

Table 3.2 Example of Tabulating Quantitative data Season 1

Theme		Number of Respondents (Teachers)		Sum (Σ)	Percentage (%)
		MAN 1	MAN 2		
Sex	Male	20	32	72	55,4
	Female	27	30	57	44,6
Age	≤ 25	1	1	2	1,5
	26 – 35	20	13	33	25,4
	36 – 45	21	22	43	33,1
	46 – 55	22	24	46	35,4
	≥ 56	6	0	6	4,6
Employment Status	Civil Officer	45	52	97	74,6
	Non-Civil Officer	15	18	33	25,4
The Experience of being a Teacher	First year	1	2	3	2,3
	1 – 5	3	3	6	4,6
	6 – 10	12	15	27	20,8
	11 – 15	20	20	40	30,8
	16 – 20	12	13	21	16,2
	21 – 25	8	10	22	16,9
	26 – 30	3	3	6	4,6
	≥ 31	2	3	5	3,8
Dedication in MAN	First year	0	0	0	0
	1 – 5	0	0	0	0
	6 – 10	0	0	0	0
	11 – 15	0	0	0	0
	16 – 20	0	0	0	0
	21 – 25	0	0	0	0
	26 – 30	0	0	0	0
	≥ 31	0	0	0	0

Then, he is tabulating the questionnaire season 2 about the effectiveness of supervision below.

Table 3.3 Example of Tabulating Quantitative data Season 2

No	Statement (Criteria of Effective Supervision)	A	B		Sum (Σ)	Prec. (%)
			MAN 1	MAN 2		
a.	Supervision is carried out in my Islamic School done regularly and thoroughly (comprehensive)	“NO” answer	9	3	12	9,2
		“YES” Low answer	4	3	7	5,4
		“YES” Middle answer	41	38	79	60,8
		“YES” High answer	6	26	32	24,6
b.	The results of supervision performed well reported and inventoried	“NO” answer	5	4	9	6,9
		“YES” Low answer	3	2	5	3,8
		“YES” Middle answer	38	24	62	47,7
		“YES” High answer	3	2	5	3,8
c.	I always get tutorial / guidance from the leadership / senior at my Islamic School	“NO” answer	5	4	9	6,9
		“YES” Low answer	3	2	5	3,8
		“YES” Middle answer	38	24	62	47,7
		“YES” High answer	3	2	5	3,8
d.	.....	“NO” answer	....	....	....	....
		“YES” Low answer	....	....	....	....
		“YES” Middle answer	....	....	....	....
		“YES” High answer	....	....	....	....

After that, he is describing the mean of the diagram and giving additional information related to data finding.

Then, he is tabulating the questionnaire season 3 about the teachers’ perspectives to supervision run in MAN in Kudus. He is showing the data found briefly below.

Table 3.4 Example of Tabulating Quantitative data Season 3

No	STATEMENT (Teacher’s perspective in supervision)	A	B		Sum (Σ)	Prec. (%)
			MAN 1	MAN 2		
a.	Educational supervision activities are common and routine.	“NO” answer	3	2	5	3,8
		“YES” Rarely answer	29	19	48	36,9
		“YES” Often answer	26	31	57	43,8
		“YES” Always answer	7	32	39	30,0
b.	Implementation of educational supervision can improve competency and professionalism of teachers.	“NO” answer	9	1	10	7,7
		“YES” Rarely answer	18	6	24	18,5
		“YES” Often answer	29	19	48	36,9
		“YES” Always answer	14	45	59	45,4

c.	<i>School policy allows teachers to get involved and choose the type of effective supervision.</i>	“NO” answer	3	2	5	3,8
		“YES” Rarely	14	4	18	13,9
		answer Often	29	19	48	36,9
		Always	14	45	59	45,4
d.	.....	“NO” answer	....	....	....	....
		“YES” Rarely	....	....	....	....
		answer Often	....	....	....	....
		Always	....	....	....	....

After that, he is describing the mean of the diagram and giving additional information related to data finding.

Then, he is tabulating the questionnaire season 4 about the supervision models based on the teachers’ perspectives. He is showing the data found briefly below.

Table 3.5 Example of Recapitulating Quantitative data Season 4a

Institution	Choice Model							Teachers’
	CLS	DS	CnS	S-R	Por	PGP	AM	Own Models
MAN 1	30	24	20	16	8	2	25	2
MAN 2	30	24	20	16	8	2	25	2
Sum (Σ)	60	44	40	32	15	4	50	4
Pec. (%)	0	0	0	0	0	0	0	0

Note:

CLS : Clinical Supervision

Por : Portfolios

DS : Developmental Supervision

PGP : Professional Growth Plans

Cns : Collaborative Supervision

AM : Administrative Monitoring

S-R : Self-Reflection

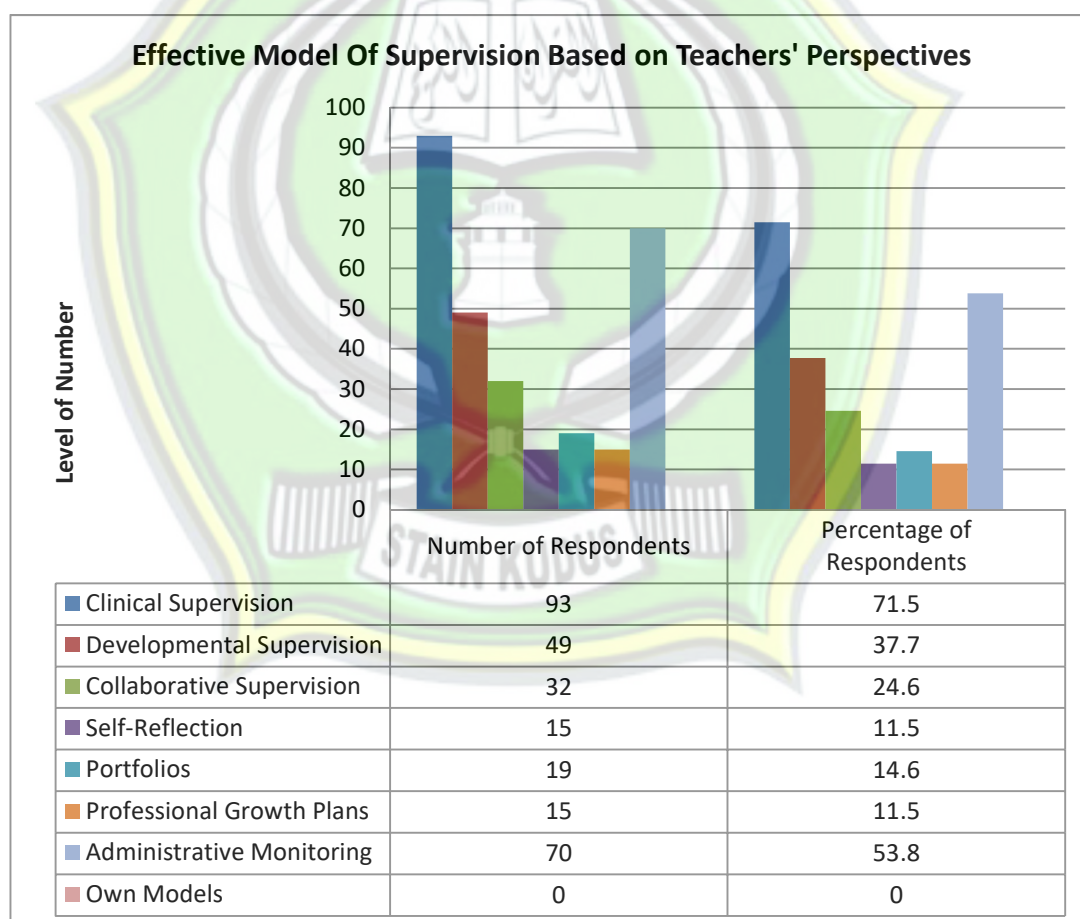
Then, he also shows may respondents who only choose one model or more than one model and respondents who give reason or not in table below.

Table 3.6 Example of Recapitulating Quantitative data Season 4b

Institution	Respondents' Choice Models			
	Only One	More Than One	With Reason	No Reason
MAN 1	50	50	50	50
MAN 2	50	50	50	50
Sum (Σ)	100	100	100	100
Pec. (%)	100	100	100	100

After that, he explains each type of the data above into a diagram of the percentage to make the understanding more clearly, for example:

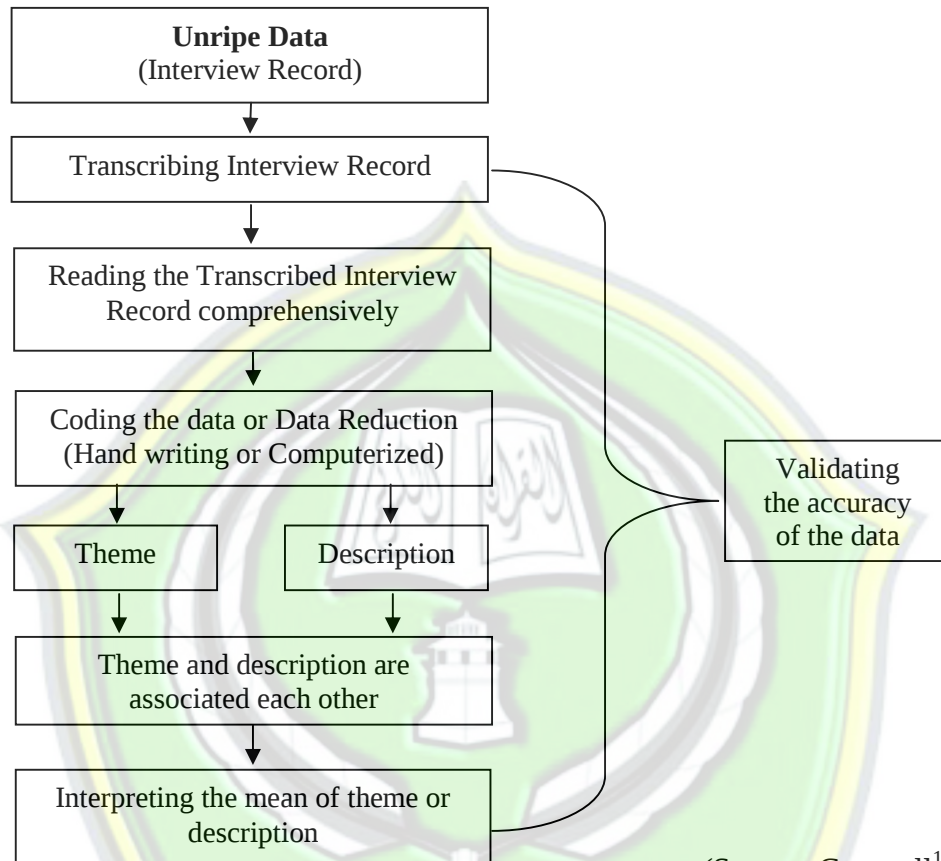
Diagram 3.1 Example of the Percentage of Models of Supervision



Finally, he is interpreting the result of quantitative analysis.

2. Qualitative Technique

In the second phase, qualitative data (interview result) are analyzed by using several steps as on figure below:



(Source: Creswell¹⁴⁷)

Figure 3.5 Data Analysis of Qualitative Research

- a. Transcribing the records of interviews
It is used in order to make the record into written form, so it can be read easily and comprehensively.
- b. Reading the transcribes
It is done to understand transcribes in order to make next step (coding) easily and accurately.
- c. Coding the data or Reducing the data
It is worked to categorize data into themes or descriptions in order make correct interpretation. It is also used to reduce the information from the informants into points that needed in this research.

¹⁴⁷ Cresswell, John W, *Opcit.* p. 262

d. Interpreting the data

It is run to explain themes or descriptions made before and make conclusion of data analysis

When he analyzes the qualitative data, at the same time, he is also validating the accuracy of the data.

3. Integrating Quantitative and Qualitative Data

After analyzing quantitative and qualitative data are done, the researcher integrates both of the results of interpreting in quantitative and qualitative analysis. As the researcher has explained before that this research is done by using mixed method.

The term “*mixed methods*” refers to an emergent methodology of research that advances the systematic integration, or “*mixing*” of quantitative and qualitative data within a single investigation or sustained program of inquiry¹⁴⁸. The basic premise of this methodology is that such integration permits a more complete and synergistic utilization of data than do separate quantitative and qualitative data collection and analysis.

The uses of mixed methods research designs are; to validate findings using quantitative and qualitative data sources, to use qualitative data to explore quantitative findings, to develop survey instruments, to use qualitative data to augment a quantitative outcomes study and to involve community-based stakeholders.

The researcher uses a convergent design to compare findings from qualitative and quantitative data sources. It involves collecting both types of data at roughly the same time; assessing information using parallel constructs for both types of data; separately analyzing both types of data; and comparing results through procedures such as a side-by-side comparison in a discussion,

¹⁴⁸ Creswell JW, Fetters MD, Ivankova NY, *Designing a mixed methods study in primary care*, Ann Fam, Med; 2004, p.7–12

transforming the qualitative data set into quantitative scores, or jointly displaying both forms of data. For example, the investigator can gather qualitative data to assess the personal experiences of teachers while also gathering data from survey instruments measuring the quality of supervision. The two types of data can provide validation for each other and also create a solid foundation for drawing conclusions about the intervention.

Finally, he makes conclusions the products of integrating process as the results of this research in order to give valuable contributions and suggestion to all sides of education.

