CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter provides two sub-sections. The first is the review of related literature that describes the basis theory which is used in this research, and the second is the review of previous study that explains the differences of this research from the other previous researches which were done by other researchers.

A. Review of Related Literature

1. The Definition of Data Collection Instrument

Generally, data collection instrument is one of the parts of research method. It is usually included in data collection technique. Both of them are so closed. That is why sometimes people consider that they are same. M. Jainuri defines that the data collection technique is the way or method to obtain the data based on the determined variables. Interview, observation, questionnaire, and documentation are the parts of data collection technique. Then, instrument in collecting data is a tool to measure an object and collect the data about a research variable as long as it can fulfill the academic requirement, it also known by term research instrument then.¹

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¹ M. Jainuri, "Teknik dan Instrument Pengumpul Data", Sekolah Tinggi Keguruan dan Ilmu Pendidikan YPM Bangko.

David Wilkinson and Peter Birmingham also define that Research instruments are simply devices to obtain the information which has relevance to the study or research project, and it has many choices to be used.² The definition of research instrument from Sandjaja and Albertus Heriyanto that research instrument is a device which is used to measure the variable in term of collecting the data.³

Etta mamang Sangadji and Sopiah, in definition of data collection technique and instrument adds that the data collection technique is the way to get the data in a research activity includes determining the method to gather the data related to the variables. In this method of collecting the data, the researcher must need a tool or device which is called research instrument or data collection instrument.⁴ From those definitions, it is clearly shown that the research instrument is different from data collection technique. Simply, it can be said that research instrument or data collection instrument is the device in data collection technique to gather the data.

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(https://www.academia.edu/5403352/Teknik_dan_Instrumen_Pengumpul_Data Accessed on December 12, 2014)

² David Wilkinson - Peter Birmingham, *Using Research Instrument* (London: Routletgefalmer, 2003),

³ Sandjaja - Albertus Heryanto, *Panduan Penelitian* (Jakarta: Prestasi Pustaka, 2006), 141.

⁴ Etta Mamang Sangadji - Sopiah, *Metodologi Penelitian* (Yogyakarta: Andi, 2010), 149.

2. Kinds of Data Collection Instruments

Since there are various data in the field, there are also some kinds of data collection technique and the instrument. David Wilkinson and Peter Birmingham in their book in title *Using Research Instrument* devides the kinds of research instrument into six, those are:⁵

a. Qustionnaires

The questionnaire is a data collection instrument which is often used in a research since it is quite inexpensive and effective. This research instrument is formed from a set of questions which is written and given to the object of research. It is like what David Wilkinson and Peter Birmingham said,

"The questionnaire is the favoured tool of many of those engaged in research, and it can often provide a cheap and effective way of collecting data in a structured and manageable form. It is usally in form of a large of questions that will be shared to the respondents. An effective questionnaire is one that enables the transmission of useful and accurate information or data from the respondent to the researcher."

b. Interviews

It is a data collection instrument which is usually often engaged to a conversation between two people. Denscombe said, "interviews involve a set of assumptions and understandings about the situation which are not normally associated with a casual

⁵David Wilkinson - Peter Birmingham, *Using Research Instrument...* 6.

conversation." It means that in conducting interviews, the researcher need guideline questions that will help him to ask about some opinion or others. Therefore, it is quite seems unnatural.

c. Content analysis

It is about coding data of a various text, for example journal articles, written debates and discussions, newspaper pieces, etc.

Content analysis is usually used to analyse text and solve issues of dispute authorship of academic papers.

d. Focus group

It is a data collection instrument which commonly used by social researchers. Focus-group is a form of qualitative method used to collect much descriptive data in a smallgroup as the participants who have wanted to 'focus' on a certain interesting topic. The thing which is emphasized here is the understanding participants' experiences, interests, attitudes, perspectives and assumptions.

e. Observation

Bogdan said that observation is like a research which has a long time period of intense social interaction as the characteristic. That intense social interaction is between the researcher and the subjects. Then, during observing in certain time, field notes usually collected systematically.

f. Video-camera

It is a tool to collect the data by recording using a videocamera, it provides the natural setting of people recording including their daily business, their interaction with one another, their various saying and activities.

In the book Metodologi penelitian by Etta Mamang sangadji and Sopiah, kinds of data collection instrument are based on kinds of data collection technique. Generally, kinds of data collection instrument is divided into two: Test and Non- Test. A test means a set of questions or exercises and other tools which is used to measure skill, intelligence, ability, or talent that are owned by individual or group. On the other hand, non- test is divided into five:⁶

a. Questionnaire

A number of written questions used to get the information from respondents about their personal report or something that they know.

b. Interview

A dialogue used by interviewer to get the information from the interviewee. Usually, the dialogue intends to get complex, sensitive

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⁶ Etta Mamang Sangadji - Sopiah, *Metodologi Penelitian...* 150-154.

or controversial information. Therefore, some questions or the interview guide as the research instrument become very important.

c. Observation

It is a process of recording the subject and object's behavior, or systematic activity without any questions or communication with the observed individuals. In observation, checklist and field notes are often used as the research instrument.

d. Rating scale

It is subjective measurement made in scale. This instrument can give a performance description of someone easily. By using scale, it can show the frequency of appearing characteristics of someone who does the duty.

e. Documentation

It refers to something written. It is about analyzing book, magazine, document, rule, note etc., so the document is the tool here.

3. The Criteria of Selecting Data Collection Instrument

From the explanation above, kinds of data collection instrument are various, and the researcher has to choose one of them as the tool to collect the data. Even more, some researchers may select more than one data collection instrument for their research. It is done to get the rich data supporting the research in order to be able more representative and valid. For

example, some researchers may use questionnaire and interview guideline as their data collection instrument. Some other may use only questionnaire as the data collection instrument, and the others may use documentation, observation checklist, and interview guideline as the data collection instrument for their research. It does not matter to use more than one data collection instrument in a research, but the researcher cannot select those data collection instrument randomly and haphazardly. It means that the researcher should be careful in selecting data collection instrument used in his research. It intends to avoid the inappropriateness data collection instrument that will be used, a researcher have to consider some condition such kind of variable which will be measured, the location of respondents, the trained staffs, the fund, the time and the method of data collection chosen. ⁷ In the simple way, it can be seen at the table below:⁸

Table 2.1. Checklist table of data collection instrument based on the situation

Condition	Instrument/ Data Collection			
	Observation	Documentation	Interview	Questionnaire
Aims				
Exploration	√	√	√	
Analysis	1			1
Variabel				
scale				
Nominal	√	√	1	
and ordinal				

⁷ Sandjaja and Albertus Heryanto, *Panduan Penelitian*... 141.

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⁸ Ibid., 170-171.

Interval and	1			1
ratio	,			,
Sampel				
large				1
small	√	1	√	1
Location				
Wide				1
limited	√	1	√	1
Fund				
Much	1	1	1	1
limited				1
Time				
Enough	1	1	1	√
Limited	1			1
Trained staffs				
Many	1	1	1	1
Limited				1

The table shows how the researcher should select the data collection instrument based on some condition above. It means when the researchers have to use this instrument and when the researchers have to use that instrument was seen from the table above. Those conditions help the researcher to think and to be more careful in selecting data collection instrument. Hopefully the instrument used by the researcher will be more appropriate by considering some conditions above.

Besides, in selecting data collection instrument, the important thing that the researcher must pay attention is looking at the three points. The first is the research question, the second is the data, and the third is the research design or method. It is because these three things are so closed and

related each other. It is like what Punch said that since a research question is a question made by the researcher that he himself will tries to answer it, then the instrument and data collection technique should be involved in assembling the data necessary to answer that research question. In empirical research, it is necessary that data are linked to the concepts tight, logical and consistent of the research question.9 It means that the data collection technique and its instrument ought to follow on what the research question about, so does with the data. It is in contact to the next statement that questions and methods need to be aligned with each other in the research.¹⁰ It clearly shows that research question and method have very closed relation in a research. Therefore, the methods also have to be considered in selecting data collection instrument. Those explanations conclude that the research instrument or data collection instrument is depended on the method, the method is depended on the data, and the data is depended on the research question. These three points have direct close relationship to the research instrument. It means that a researcher will have like view or opinion about which research instrument that is suitable for his research by considering these three points.

Related to this case, Dawson in his book "A practical Guide to Research Method", mention qualitative and quantitative method as thing that

⁹ Keith punch, *Developing Effective research Proposals* (London: Sage Publications. Inc, 2000), 27-28 ¹⁰ Ibid 30

also should be considered before selecting data collection instrument and its method or techniques to collect the data. He said that qualitative research mostly explores about attitudes, behaviour and experiences. Therefore, the good way in collecting the data is using interviews or focus groups since it tries to get an in-depth opinion from the participants as the object of research. While quantitative research generally has statistics as the result, so questionnaires or structured interviews become the suitable method and research instrument.¹¹ Dawson classifies the research method and its instrument as below:

Table 2.2. Table of the data collection instrument based on the research method

Research Method	Research instrument	
Action research	- Questionnaires	
	- interviews	
	- focus group	
Ethnography	Observation	
Feminist Research	Focus group	
Grounded theory	- Interviews	
	- focus group	
Qualitative research	- Interviews	
	- focus group	
Survey research	Questionnaire	

On the other hand, Donald Ari adds the classification of the data collection instrument based on the research question, research design, and

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¹¹ Catherine Dawson, *A practical Guide to Research Method* (United Kingdom: How To Books, 2007), 32-33.

the quantitative and qualitative methods. It means that research question, research design and qualitative and quantitative methods are also become consideration before a researcher wants to select certain data collection instrument. The table below the previously mentioned shows classifications.12

Table 2.3. Table of the data collection instrument based on the research question

Research	Research Question	Research Instrument	
Method			
	- do/does?	Test, Ratings, Questionnaire,	
Quantitative	- is/ are?	Attitudes scale	
	- what?		
	- how		
	many?		
	- Why?	Interview, Observation,	
Qualitative	- How?	Document analysis, Audio	
		visual materials	

The table above shows that the classification of research instrument is based on the research question. The research question above is actually not only by looking at the first word, but also the rest sentence of the question itself which forms the full research question. In this book, the initial question words which mentioned above usually tend to that qualitative or quantitative method, then the qualitative and quantitative method tends to use those mentioned research instrument.

¹² Donald Ari, Lucy Cheser Jacobs and Chris Sorensen, Introduction to Research in Education, 8th Ed (USA: Wadsworth, 2010) 26-31.

Next, about the classification of research instrument or data collection instrument according to the research design is shown in the following table. The table contains three things that are research method, research design and research instrument. The research instrument here is correlated based on the research design. For example, experimental research usually use test, case studies uses Interview, Observation and Archives, and so on.

Table 2.4. Table of the data collection instrument based on the research design

Research methods	Research designs	Research instruments	
	Experimental Research	Test	
	Non- experimental research:		
Quantitative	- Correlational study		
	- Survey research	Questionnaire & interview	
	- Ex post facto		
	Basic interpretative studies	- Interview	
		- Observation	
		- Document review	
Qualitative	Case studies	- Interview	
		- Observation	
		- Archives	
	Document/ content analysis	Documentation	
	Ethnography	- Observing	
		- Interview	
		- Document	
		- Artifact	
	Grounded theory	- Observation	
		- Interview	
	Historical research	Document	
Narrative inquiry Phenomenological studies Action research		Interview	
		Interview	
		Focus group	

From those explanations and mentioned tables above, it can be concluded that some conditions or points to consider in selecting the data collection instrument are:

a. Research question

In a research, research question is the first main thing. It becomes prime part of the research since the research question is the start of a research. It is the first step in beginning a research project. The research question itself comes from problem which formulates questions next. Phyllis Tharenou in his book *Management Research Methods* said that a research question is a question regarding the problem that want to be solved. Therefore, it focused on the interesting topic's substance. According to Graziano and Raulin, the research question is an expression or statement about the expected relationship between variables in form of questions and it implies the possibility of an empirical test.¹³

b. Data

To answer the research question, a researcher needs data. Data is everything researcher needs to answer his research question. It can be form of numeral or the large of word exploration. From the data, the researcher will get the finding of his research.

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¹³ Phyllis Therenou, Ross Donohue and Brian Couper, *Management Research Methods* (New York: Cambridge University Press, 2017), 5.

c. Research design

Research design here means the model of a research under the research method. The research designs are usually part of the research method. For example, the qualitative method has Basic qualitative/interpretive research, case study research, content analysis, Ethnographic research, Grounded theory research, Historical research, narrative research, and Phenomenological research as the research design. 14 Then for the quantitative method, it has experimental and Nonexperimental research, Correlational study, Survey research and Ex post facto research.

d. Research Method or approach, whether it is qualitative or quantitative

Method of the research, or some people called it as approach is the type of the research. In conducting a research, a researcher should decide in what research his research is. He needs to choose an approach to investigate the topic of his research. The method or approach here is understood as either quantitative or qualitative. Generally, quantitative research tends to numerical assignment to the phenomena under study, whereas qualitative research produces narrative or textual descriptions of the phenomena under study. 15

Donald Ari, Lucy Cheser Jacobs, Chris Sorensen, Introduction to Research... 452-453.
 Scott w. Vanderstoep, Research Methods for Everyday Life (San Francisco: John Wiley & Sons Inc, 2009), 7.

e. Data collection technique

Data collection technique is the way to gain the data. It answers the question how the researcher get the information from the source of data. There are some data collection techniques such as interview, questionnaire, observation, documentation, etc.

f. Aims of the research

Aim of the research is answering the question what for the research is conducted. The aims of the research usually come from the research questions. The number of the research questions establishes the number of aims of research. The statement in the research question also becomes sentence in the aim of the research. Hence, the aim of the research can be seen from the research questions.

g. Variable

Variable is something that researcher wants to measure. Phyllis said that variables are the conceptualization of the most constructs of interest of researchers. Related to the variables, key terms are also similar with it. It is because key terms and variable are two term in a research that has closed relation one another. Key terms are usually derived from the variable that will be measured, and the variable comes from the research question. It is like what has been explained above that variable is part of thing to be expected its relationship in a research

 16 Phyllis Therenou, Ross Donohue and Brian Couper, $\it Management \ Research \ Methods...\ 8.$

question which implies the possibility of an empirical test. Key term itself means some words that often appear in a research. It is like key word in a research. The key terms are necessary in a research since the writer and the reader must have same understanding about those some words, and it must relevant to the research. Therefore, it is presented in the research.

h. Population and sample

Arikunto said that Population is the whole subject of the research.¹⁷ It means that population is all of people who will be engaged in a research as the respondents, whereas sample is the process of selecting a number of individuals (object of research) for a study as the representative of those population.¹⁸

i. Location of the research

Location of the research here means the place of the research. It refers to where the research take place and where the researcher did the whole process of the research including collecting and analyzing the data. Even more, it includes the process of writing research report by the researcher. But in this case, place tends to where the researcher search and find the data regarding consideration in selecting data collection instrument.

⁷ Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktek (Jakarta:* PT. Rineka Cipta, 2004) 130

¹⁸ Sumanto, *Metode Penelitian Sosial & Pendidikan* (Yogyakarta: Andi Offset, 1995), 39.

j. Fund

Fund is money which is needed in conducting a research and selecting data collection instrument. Fund becomes one of the suggested considerations in selecting data collection instrument since it affects the researcher's capacity to carry out the research. It also can determine the number of respondent.

k. Time

Time of the research means the duration of the research. Although time of the research can be defined as how long the whole process of research which start from finding problem, formulating research problem, looking for the theory, collecting data, analyzing data and writing report, time of research here means how long the researcher collect the data or information using certain instrument.

1. Trained staffs or the implementer of the research.

Trained staffs or implementer of the research here means who will do the research. In simple word, trained staffs or the implementer of the research is the researcher itself including the quantity of the researcher, whether it is one, two, three or more researchers.

Those twelve considerations in selecting research instrument are called the correct procedure in selecting research instrument then. It means, to select which research instrument that is suitable for a research, it is better for a researcher to consider those correct procedures above.

B. Review of Previous Studies

- 1. The first previous study is from Muh. Yusuf, English Education Department IAIN Sunan Ampel Surabaya. In his thesis entitled "Students' Problems in Writing Research Proposal: A Case Study of The Fifth Semester Students of English Education Department, State Institute for Islamic Studies Sunan Ampel Surabaya", he asked about the students' problems in writing a research proposal generally and their possible causes of the problems in writing a research proposal. Using descriptive qualitative method, he found that the students' problems in writing proposal are categorized into 3 aspects: Methodology, Review literature and Introduction. From those problems, the causes are:
 - a. They did not understand methodology, because:
 - 1) The lecturer seldom attended the class to teach directly, she just taught via face book
 - 2) The students did not understand Research Method
 - 3) Time learning was limited and it did not run maximal
 - b. They confused in determining review literature, because:
 - 1) Lecturer transferred unclear explanation
 - 2) Literature review was never practiced in the class
 - 3) Student were lazy to read the books

¹⁹ Moh. Yusuf, thesis: "Students' Problems in Writing Research Proposal: A Case Study of The Fifth Semester Students of English Education Department, State Institute for Islamic Studies Sunan Ampel Surabaya". (Surabaya: IAIN Sunan Ampel Surabaya, 2013).

- c. They felt difficult in composing good introduction, because:
 - 1) They seldom joined the class
 - 2) Lecturer gave less detail information
 - 3) Difficult to make good sentences
- 2. The second previous study comes from Moh. Isnaini, English Education Department, IAIN Sunan Ampel Surabaya. In his thesis entitled "Error Analysis in Students' Proposal Writing of English Education Department of Tarbiyah Faculty IAIN Sunan Ampel Surabaya"²⁰, he asked about the types of errors made by students of English Education Department students in writing 4 class and the possible causes. Using descriptive research design and statistic description, he found that the types of sentence errors in proposal writing of the students in the fifth semester of English Education Department IAIN Sunan Ampel Surabaya were about comparative taxonomy which was occurred nine times. The total errors are 244 occurrences for all types of errors (comparative taxonomy, surface taxonomy, omission, addition, malformation, and disordering).

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²⁰ Moh. Isnaini, thesis: "Error Analysis in Students' Proposal Writing of English Education Department of Tarbiyah Faculty IAIN Sunan Ampel Surabaya". (Surabaya: IAIN Sunan Ampel Surabaya, 2011).

- 3. The third previous study is by Deni Hamarismul, English Education Department, Muhammadiyah University Malang. His thesis in title "Advisor's Difficulties in Guiding Thesis Writing (Non-Linguistic Factors), Muhammadiyah University of Malang, Faculty of Teacher Training and Education, English Education Department"²¹ asked about the difficulties which are faced by thesis advisors when supervising their students writing the thesis. The finding of this thesis is listed from the top to the less, those are:
 - Difficulties dealing with students' English proficiencies
 - Difficulties dealing with students' time management
 - Difficulties dealing with students' research methodology
 - Difficulties dealing with students' motivation
 - Difficulties dealing with students' attitude
 - Difficulties dealing with students' research topic
 - Difficulties dealing with co- advisor relationship, students; plagiarism, students' personalities, the big number of supervised students and advisor workload

However, this study is different from all these theses, because they want to know students' problem in writing proposal, error analysis in writing proposal, and advisors' difficulties in guiding thesis writing. All these theses

Deni Hamarismul, thesis: "Advisors' Difficulties in Guiding Thesis Writing (Non- Linguistic Factors) Muhammadiyah University of Malang Faculty of Teacher Training and Education English department". (Malang: Muhammadiyah University of Malang, 2006).

analyze the proposal and thesis generally about the content, grammatical structure and the experiences during writing proposal and thesis. In this study, the researcher wants to more concern in the specific part of writing proposal which focused in term of research itself exactly about research instruments or data collection instrument.

