CHAPTER III

RESEARCH METHOD

This chapter discusses the research design and approach which used in the study including data collecting procedure, instruments, data collection, data analysis while explaining the stages and processes involved in the study, and method for verification the research findings.

A. Research Design and Approach

To get data in this study, writer needs method which is suitable with purpose's of study. Then the data will answer the problem of study. In the other words, when we talk about research design and approach, it means that we talk about the way to get data.

Yin called research design as "blueprint". It mean that research design is plan which connect among the problem, data, analyses data and the answer or conclusion of problem then avoid the evidence does not address the initial research questions.[78]

In this study, writer uses mixed methods research, which combines qualitative and quantitative approaches in a single or multiphase study[79]. According to Donald Ary, there are six designs of mixed method research: [80] concurrent designs, parallel designs, sequential designs, fully mixed design,

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[78] Yin, *Case Study Research: Design and Methods,* 2nd Edition, New Delhi: SAGE Publications, p.20.

[79] Donald Ary, and friends, *Introduction to Resesrch in Education Eight Adition,* USA: Wadsworth, 2010. p.561.

[80] Ibid., P. 564

conversion designs, and embedded designs. In this study, the writer used fully mixed design. Ary stated

> ***Fully mixed designs*** *or fully integrated designs involve mixing of the qualitative and quantitative approaches in an interactive way throughout the study. At each stage, one approach may infl uence the implementation of the other. There are multiple points of integration throughout the study, from data collection to data analysis and interpretation and inferences.*

Writer used this design because data analysis begins before all data are collected and the analysis infl uenced choices made in conducting the next phase of the study which called as sequential design but in the other side data collected in one form (in this study students perception collected as qualitative data) are converted to a different form (in this study students perception converted to quantitative data) then analyzed, this design called as conversion design.

In detail using of mixed method as the combination methods, writer used qualitative method when writer analyzed perspective of students and teacher's judgment toward English textbook entitled "Look Ahead: An English Course 2", the writer used quantitative method to analyze readability of the textbook by using cloze test and Flesch Reading Ease formula.

B. Research Subject

Since the objective of the study tried to know the readability level of reading texts in the English textbook, the first subject is English textbook entitled "Look Ahead: An English Course 2" written by Th. M Sudarwati and Eudia Grace published by Erlangga. The second subject is the students in the senior high school at eleventh grade who used the textbook to explore what students think

about the reading texts. The third subject is the teacher who used the textbook to get judgment about readability of textbook. The second and third subject is needed to support readability score while it is calculated by readability formula. The facts inside what happen in readability score only known by interviewing or asking the subject used the textbook. The writer believes those data has a realitionship that support each other.

In this study, the writer focused on the reading skill that is broadened to forty three reading texts in this English textbook. Then the writer focused to ask the students by giving some close & open ended questionnaire, examined students by giving cloze tests and focused on asking teacher by interviewing. The questionnaire and cloze test are given to 20 eleventh grade students of SMAN 1 Palangka Raya as the respondents. Then writer interviewed to a teacher as the informant.

C. Time and Place of the Research

This research did at SMA Negeri 1 Palangkaraya. The writer planned the research for three months from November 19th, 2015 until February 19th, 2016. But, actually the writer could finished this research only for two months from November 19th, 2015 to January 05th, 2016

D. Data Collecting Procedures

The way to collect the data in this study is by using documentation and interview. There are four data got from this research those are readability score, questionnaire result, students' score of cloze test and teacher judgment. The first data is gotten from analyzing the reading texts that available on English textbook

entitled *"Look Ahead: An English Course 2"* and the procedure to collect the data of readability score as follows:

1. Determining the English textbook for Senior High School

2. Identifying the texts on "Look Ahead: An English Course 2" written by Th. M Sudarwati and Eudia Grace published by Erlangga

3. Reading the texts of "Look Ahead: An English Course 2" written by Th. M Sudarwati and Eudia Grace published by Erlangga

4. Counting the number of sentences, words, and syllables of each text.

Then second data, questionnaire result, collected as follows:

1. Determining the respondents used the textbook

2. Grouping the respondents into a class and Explain what they have to do with questionnaire

3. Giving the questionnaire to answer

4. Analyzing the students' sheet questionnaire into a descriptive data

The third data, to get the students' score of cloze test, writer did the below steps:

1. Selecting three text which represent material, from the beginning, middle, and end of the textbook and contain approximately 250 words length.

2. Doing words deletion in the text. Deleting words is started from second sentence. Writer deleted every seventh words, and evade to delete proper nouns.

3. Constructing cloze test by choosing letter blank cloze as the chosen variant form, so students easy to fill the test and writer easy to give score in exact scoring method.

4. Giving the test to answer

5. Counting the students' score of cloze test

Then fourth data, the teacher's judgment, gotten as follows:

1. Creating the interview questions

2. Determining the teacher used the textbook

3. Doing interview

4. Recording the process of interview

5. Transcripting the teacher's interview answers

6. Analyzing transcript the teacher's interview answers

E. Research Instrument

The instrument of the research is the equipmet that is used by the writer to collect the data, in which is important to get the accurate data.[81] It means that instrument is very important to arrange the data.

According to Indri Murwati has mentioned in chapter II that there are three ways to measure the readability of reading materials: judgment, cloze procedure, and readability formula. In this study, the writer takes all of the ways to measure readability, furthermore writer add questionnaire to support the data. Judgment was used to measure readability text from professional teacher or expert side as the person who has responsibility for students knowledge; cloze procedure is used

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[81] Suharsimi Arikunto, *Prosedur Penelitian.,*Yogyakarta: Rineka Cipta, 2006., p.158

to improve the existing readability measures, which is focused on the reader's process through a text; and the readability formula used to predict the readability of textbook by calculating the reading text. The result is readability score. While writer add questionnaire as the data which support the strength of result because by using the questionnaire writer believed that we can find the other which cannot count by readability formula such as background knowledge, layout or cognitive process.

There are four data collected in this study, the writer used for instruments. Those are interview, cloze test, Flesch Reading Ease formula and questionnaire. First instrument is interview. Interview is one of methods in to gather information from people about opinion, belief, and feelings to understand the people's experiences[82]. Writer chooses personal interview. In a personal interview, the interviewer reads the questions to the respondent in a face-to-face setting and records the answers[83]. The data is gotten by using interview is qualitative data. In this study, interview used to get judgment from professional teacher.

Second, cloze test is one of test forms. Test is valuable measuring instruments for educational research[84], and cloze test (cloze procedure) is an attempt to improve the existing readability measures. Cloze test is constructed by deletions the fifth, sixth, or seventh words in the reading text and ask students to fill the deletions words. Cloze test used to 1) determine what students already know about a given topic; and (2) to assess the suitability of a new text for

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[82] Donald Ary, *Introduction to Research in Education Eight Edition,* Canada: Wadsworth, 2006, p. 438
[83] *Ibid,* p.380.
[84] *Ibid,* p.201.

students by testing their prior knowledge and language competence as they attempt to fill in the deletions[85]. The data in cloze test is quantitative data and used to measure students readability level of reading text in the textbook.

Third instrument is Flesch Reading Ease Formula. Almost same like second instrument, Flesch Reading Ease Formulais one of test forms. But the difference between Flesch Reading Ease Formula and cloze test is Flesch Reading Ease Formula measure readability of reading texts. Flesch Reading Ease Formula used to analyze the readability level English textbook entitled "Look Ahead: An English Course 2" written by Th. M Sudarwati and Eudia Grace published by Erlangga. So, in this study, writers took all of reading texts in the textbook and analyze it by using Flesch Reading Ease Formula. The result of formula calculation will be answered what is the level of reading texts in the textbook.

And last, the writer employs some questionnaire to the some students who have learned the textbook of entitled "Look Ahead: An English Course 2" written by Th. M Sudarwati and Eudia Grace published by Erlangg. There are two kinds of questionnaire in this study, closed-ended questionnaires and open-ended questionnaires. Cloze ended questionnaire is questionnaire format that limits respondents with a list of answer choices from which they must choose to answer the questions. While open ended questionnaire is questionnaire that cannot answered by "yes" or no, it needs some statements and responses[86]. The writer constructed the questionnaire by paying attention to some factors which

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[85] Dornyei, Zoltan. 2003. *Questionnaires in Second Language Research: Construction, Administration and Processing.* Lawrence Erlbraum Associates. Mahwah, New Jersey. P.47

[86] Dillman D., SmythJ., & Christion LM. In https://en. M. Wikipedia.org accessed at 8:35 on Monday, 21th March 2016.

influenced to readability based on theories in chapter II. The result of this questionnaire perhaps can support the result of three data before. So, the final result of the study is strong and valid.

F. **Population and sample**

In this study, writer gave questionnaire and cloze test to know students' perception about readability of textbook entitled "Look Ahead an English Course 2" and students' ability in reading comprehension to measure readability level of reading text. In the other words, writer needs respondents to fill the questionnaire. The respondents of this study is students of SMAN 1 Palangka Raya. To decide the amount of respondents, writer needs to know theory about population and sample. Broadly speaking, the *sample* is the group of people whom researchers actually examine and the *population* is the group of people whom the survey is about.[87] This study took a random sampling in order to minimize the effects of any extraneous or subjective variables that might affect the outcome of the study. Zoltan illustrated that in the survey research literature a range of between 1% - 10% of the population is usually mentioned as the 'magic sampling fraction,' depending on how careful the selection has been (*i.e.* the more scientific the sampling procedures applied, the smaller the sample size can be, which is why opinion polls can produce accurate predictions from samples as small as 0.1% of the population).

In this study, the respondents are the eleventh grade students of Senior High School. The writer took the respondents from the eleventh grade students of

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[87] *Ibid* P.74

SMAN-1 Palangkaraya who have learnt this textbook. The population of eleventh

grade students of SMAN - 1 Palangkaraya has grouped as the table below:

Table 3.1   The Number of Eleventh Grade Students of SMAN-1 Palangka Raya who have learnt textbook entitled "Look Ahead : An English Course 2"

No.	Class	Number of Students
1.	XI IPA	136 students
2.	XI IPS	41 Tudents

According to Zoltan, the writer take random sampling between 1-10% of the

number of the students. So, the writer set 5 for IPS, 15 for IPA students.. Total

respondents are 20 students. It is very much 11% of total respondents. The writer

assumed that 11% is close enough to 10%. It is only 1% higher than 10% as the

minimum limit to assess accurate predictions.

G. **Data Analysis Procedures**

The research design of this study is mixed method, so writer analyzed the

data by using mixed method data analysis. Onwuegbuzie and Teddlie presented

that, a seven-stage conceptualization of **mixed methods data analysis** are : Stage

1, **data reduction,** analysis qualitative data was suitable to the theme of study.

Stage 2, **data display,** table or other form using to show quantitative data. Stage 3

is **data transformation,** the change of data's form, from qualitative data change

to quantitative data. Stage 4 is **data correlation,** which talk about quantitizing and

qualitizing compared to the originals. Stage 5 is **data consolidation,** in which

both sets of data are combined to create a new set of data or variables.Stage 6,

data comparison, involves comparing data from the qualitative and quantitative

data sources. Last, stage 7 is **data integration,** in which the data and interpretations are integrated into either a coherent whole or reported in two separate sets (qualitative and quantitative) of coherent wholes.

In this study writer did four analyses. *First,* writer analyzed data to get judgment from professional teacher. The step to analyze the data as follow:

1. Writer did script the interview answer

2. The writer read the teacher's interview script answer briefly.

3. The writer resumed the interview answer

4. The writer described the judgment points of the teacher into a descriptive analysis.

Second, writer made cloze test as the second way to measure the readability of English textbook entitle "Look Ahead: An English Course 2". This test was given to students as respondents who used the book. The result of test was analyzed as steps as below:

1. Collecting students' answers sheet.

2. Correcting the students' test answers sheet briefly

3. Counting the score giving one score for a correct answer and zero for the wrong answer. The scores are the raw data from cloze test.

Third, the writer used Flesch readability formula (Reading Ease Formula) because this formula is the easiest one to measure the readability of reading texts. To make the analzing easier. The writer conducted the ways to analyze the data as follow:

1. Analyzing the sentence on full units of speech marked by a period, colon, semicolon, dash, question mark, or exclamation point as one sentence.

2. Analyzing each word in the up to 100. Its process before count, than determine as one word for numbers, symbols, contractions, hyphenated words, abbreviations, figures, and their combination that are surrounded by one space.

3. Analyzing the syllables as the pronounced, for example: *here* has one syllable, *number* consists of two, and *combination* consists of four syllables.

Last, the writer also measure the readability score by analyzing the students' perception as the second data. The procedure as follow:

1. The writer read the students' questionnaire answer sheet biefly.

2. The writer resumed the respondents' answer

3. The writer described the questionnaire points of the respondent into a table as quantitative data.

H. Method for Verification of the Research Findings

The validity of the data is the most important in the research. In this study, to find and make the verification of the research findings, the writer held some verification of the data. The data collected in this study is suitable in reality. It is to keep the data collected are true data and responsible.

The validity of the data is the conditions that fulfill:[88]

1. Explaining the right value,

2. Presenting a base that be apply,

3. Permitting other opinion that made consistency.

In acquiring the data, in this   writer uses triangulation.[89] The triangulation used is theory triangulation which involves consideration of how the phenomenon under study might be explained by multiple theories. There are four techniques to determine the validity of data, namely credibility, transferability, dependability and conformability.[90] To test the validity of data the writer uses them, as follow:

1. Credibility

Credibility is the same as validity in quantitative research. The integrity of qualitative research depends on attending to the issue of validity. Validity concerns the accuracy or truthfulness of the findings. The term most frequently used by qualitative researchers to refer to this characteristic is credibility. Credibility in qualitative research concerns the truthfulness of the inquiry's findings.[91] In test of data credibility or internal validity, the data must be admitted and received the truth by information source from the field

[88] Lexy J. Moleong, *Metodologi Penelitian Kualitatif,* Bandung : PT. Remaja Rosdakarya, p. 320-321, in Rahmat Hidayat, *The Readability Level of Reading Texts in the English Textbook Entitled Bahasa Inggris SMA/MA/MAK for Grade XI Semester 1 Published By the Ministry of Education and Culture of Indonesia,*Thesis, Palangka Raya: IAIN, 2015. t. dt

[89] Imam Gunawan, *Metode Penelitian Kualitatif Teori dan Praktik,* Jakarta : PT. Bumi Aksara, 2013, p.288-289, in Rahmat Hidayat, *The Readability Level of Reading Texts in the English Textbook Entitled Bahasa Inggris SMA/MA/MAK for Grade XI Semester 1 Published By the Ministry of Education and Culture of Indonesia,*Thesis, Palangka Raya: IAIN, 2015. t. dt

[90]Sugiono, *Memahami Penelitian Kualitatif Dilengkapi contoh proposal dan laporan Penelitian,* Bandung: Alfabeta,2010,p. 366, in Rahmat Hidayat, *The Readability Level of Reading Texts in the English Textbook Entitled Bahasa Inggris SMA/MA/MAK for Grade XI Semester 1 Published By the Ministry of Education and Culture of Indonesia,*Thesis, Palangka Raya: IAIN, 2015. t. dt

[91]Donald Ary, *Introduction to Research in Education Eight Edition,* Canada: Wadsworth, 2006, p. 500.

of the study. To effort in order that the truth of result of the students believed, it is supported by some ways as follow:

i. Extension Reading

The extension of reading to test the credibility of data research focused on the examination of the data has been obtained. If after rechecking the data that has been obtained found the right data then its mean the data is credible. In this study the writer done the extension of reading for one month for rechecking of data that have been found and analyzed.

ii. Increased Persistence

Increased persistence means to observe more closely and continuously. By increased persistence then the researcher can check to be sure that the data that has been found is wrong or not. The researcher can also provide an accurate description of the data about what is observed. In this study the writer increased her persistence by reading the variety of books reference and documentation related to the findings that have been studied.

iii. Use reference material

Reference material here means to prove the existence of supporting data that has been discovered by researcher.

2. Transferability

Transferability relate to the questions, how far the result of the study might be applied by the other people in other context. Transferability is the

external factor. Therefore, the writer demanded to report the data conclusion clearly, systematically and acceptably. To the result of the study could transfer to the similar classes.

3. Dependability

The technique is done by reporting of interim report or ending report that get of discussion with colleague. Discussing the data and information that have been collected from the others source. The technique has purpose, they are: The writer gift the true report of the research. The result and process must be balanced.

4. Confiamiability

A term used in qualitative research, equivalent to validity in quantitative research, related to the degree to which findings in a study can be corroborated by others investigating the same situation.[92]Conformability in qualitative research is the same as the quantitative researcher's concept of objectivity. Both deal with the idea of neutrality or the extent to which the research is free of bias in the procedures and the interpretation of results. Because it may be impossible to achieve the levels of objectivity that quantitative studies strive for, qualitative researchers are concerned with whether the data they collect and the conclusions they draw would be confirmed by others investigating the same situation. Thus, in qualitative studies, the focus shifts from the neutrality of the researcher to the

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[92]Donald Ary, *Introduction to Research in Education Eight Edition,* Canada: Wadsworth, 2006, p. 638.

confirmability of the data and interpretations.[93] In the present study, to reach the conformability the researcher followed the procedure of the study scientifically.

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[93]*Ibid.*, p. 504.