

CHAPTER III

RESEARCH METHOD

A. Research Design

In this study, researcher employed the Mixed Method Research. According to Creswell and Plano Clark as cited in Creswell (2012) They said that A mix method research design is a procedure for collecting, analysing, and "Mixing" both quantitative and qualitative methods in a single study or a series of studies to understand a research problem. The purpose of this mixed research method is to determine the percentage of HOTS in English reading comprehension section 2017 / 2018 then, measure students' level in doing HOTS and also to find out the factors of students' difficulties in doing HOTS.

B. Research Setting

This research conducted at MAN 1 Banjarmasin at jalan Kampung Melayu, Rt. 11 No. 31 kelurahan seberang mesjid, sub-district of central Banjarmasin city Banjarmasin, South of Kalimantan. The school of MAN 1 Banjarmasin used the 2013 curriculum for teaching and learning activities. So, that researcher conducted this school because the characteristic of HOTS was implemented in the 2013 curriculum.

C. Participants

In this research, the writer used random sampling. According to Creswell (2002) said that random sampling is a procedure in quantitative research for selecting participants. The participants of this study is 35 students of the 12th grade at MAN 1 Banjarmasin.

D. Data

1. Data

In this research, the researcher needs all of data about the percentage of HOTS question, students' level and the factors of students' difficulties in doing HOTS. All data taken by the researcher through some instrument, there are documentation, test, and interview.

2. Source of Data

The data above collected through some sources as follow:

- a. The students of 12th grade of MAN 1 Banjarmasin

E. Technique of Data Collection

Technique of Data Collection is the first step in the study, because this step is to answer the problem statement. In this research used documentation, test and interview

1. Documentation

A document is something that we can read and which relates to some aspect of the social world. In this study used English Examination 2017 / 2018 document.

2. Test

The test took from English reading comprehension section 2017/2018.

3. Interview

This technique was used in interview to conduct the factors of students' difficulties in doing HOTS of English Reading Comprehension Section 2017/2018. The interview used were Focus Group Discussion. In this way, the researcher doing discussion with students at 12th grade IIS 1 the classes are examined. The respondents took a half of the class then, They are divided in three groups.

F. Data Analysis

This research used an Explanatory Sequential Design. According to Plano Clark as cited in Creswell (2012) He said that consists of first collecting quantitative data and then collecting data to help explain or elaborate on the quantitative result. The rationale for this approach is that the quantitative data and result provide a general picture of the research problem; more analysis, specifically through qualitative data collection is needed to refine the general picture. So that the process of data analysis used two types too such as following:

1. Documentation

a. Editing

This technique is used in purpose of re-examining all collected data to make sure whether already completed or not.

b. Classifying

This technique used to group items on the National English / High School National Examination level those are included in the HOT category.

To group item on the researcher used were The Analysis Card. It is a reference to decide what kind of cognitive domains contained in each multiplechoice reading question. The analysis of card is created by combining and collecting the understanding about six levels of cognitive domain from the revised edition of Bloom's taxonomy along with the example of the reading question from various references that the writer got from the text books and the journals.

Table 1 The Analysis of Card		
Category	Generic Skill	Sample Verbs
Remebering : Recalling Infomation	The learner is able to recall, restate and remember learned infomation	Choose, Cite, Enumerate, Group, Label, List, Listen, Locate, Match, Memoriz, Name, Outline, Qoute, Read, Recall, Recite,Record, Relate,Repeat, Reproduce, Review,Select, Show, Sort, State, Underline, Write.
Understanding : Explaining Ideas or Concepts	The learner graps the meaning of information by interpreting and translating what has been learned	Account for, Annotate, Classisfy, Convert, Define, Describe, Discuss, Identify, Indicate, Interpret, Observe, Outline, Recognize, Reorganize, Report, Research, Restate, Retell, Review, Translate.
Applying : Using	The learner makes use of information in a new situation from the	Adapt, Apply, Calculate, Change, Collect, Compute, Construct, Demonstrate,

information in another familiar situation	one in which it was learned	Dramatize, Draw, Exhibit, Generalize, Illustrate, Interview, Make, Manipulate, Operate, Paint, Practice, Sequence, Show, Sketch, Solve, Translate.
Analyzing : (Critical Thinking) Breaking information into parts to explore understandings and relationships	The learner makes use of information in a new situation from the one in which it was learned	Analyze, Appraise, Arrange, Calculate, Categorize, Compare, Contrast, Critize, Debate, Detect, Diagram, Discriminate, Dissect, Distinguish, Examine, Experiment, Group, infer, inquire, inspect, investigate, Order, Probe, Question, Relate, Research, Scrutineze, Sparete, Sequence, Sift, Subdivide, Summarize, Survey, Test.
Evaluating (critical Thinking) : Justifying a decision or course of action	The learner makes decisions based on in depth reflection, criticism and assessment.	Appraise, Argue, Assess, Choose, Compare, Conclude, Criticize, Critique, Debate, Decide, Deduce, Defend, Determine, Differentiate, Discriminate, Evaluate, Infer, Judge, Justify, Measure, Predict, Prioritize, Probe, Rank, Rate, Recommend, Revise, Score, Select, Validate, Value.
Creating : (Critical Thinking) Generating new ideas, Products, or ways of viewing things	The learner creates new ideas, and information using what has been previously learned.	Act, Assemble, Blend, Combine, Compile, Compose, Concoct, Construct, Create, Design, Develop, Devise, Formulate, Forecast, Generate, Hypothesize, Imagine, Invert, Organize, Originate, Predict, Plan, Prepare, Propose, Produce, Set up

c. Tabulating

The researcher tabulates all the collected data base on the prequency computing of each certain by answer the following formula (Sudijono, 1978)

$$p = \frac{F \times 100}{N}$$

P = Percentage

F = Total of question

N = Number of question of HOTS

2. Test

a. Scoring

This techique is used to measure Student's Level in doing HOTS of English Reading Comprehension Section 2017/2018. To know the average score of students's level in doing HOTS of English Reading Comperhension Section 2017/2018, the researcher counts the Mean with the formula (Sudijono, 1978) :

$$M = \frac{\sum x}{N}$$

M =Mean

$\sum x$ = Total Score

N = Total number of Respondents

b. Interpreting

The data are interpreted base on the percentage the students got as follows:

Absorption Interval (%)	Absorption Category
$85 \leq x \leq 100$	Excellent
$70 \leq x < 85$	Good
$50 \leq x < 70$	Fair
$0 \leq x < 50$	Bad

Source: (Depdiknas, 2007)

3. Interview

a. Editing

This technique used in purpose of re-examamining all collected data to make sure whether already completed or not.

b. Coding

This technique used to give code on all collected data to classify them into certain catagories.