

CHAPTER III RESEARCH METHODS

3.1 Research Method

Based on the characteristics of the research, this research was categorized as a descriptive quantitative method which aims to reveal what something is. According to Arikunto (2006) quantitative research requires a lot of use of numbers, starting from data collection, interpretation of the data, as well as the appearance of the results. Meanwhile, Arikunto (2005) stated that descriptive research does not aim to test a particular hypothesis, but only describes what is true about a variable. Sometimes in descriptive research also want to prove allegations, but this is not very common. The descriptive quantitative method used in this study was intended to obtain information about difficulties in reading comprehension among fourth semester students of the English education study program at Muhammadiyah Kotabumi University, Academic Year 2022/2023

3.2 Population, Sample, and Sampling Technique

3.2.1 Population

The first step in collecting and analyzing data in a study is determining the population. According to Sugiyono (2016) population is a generalization region that includes: items/subjects with certain attributes and characteristics chosen by researchers to be investigated and conclusions drawn. The population in this study

were the fourth semester students of the English education study program at Muhammadiyah Kotabumi University academic year 2022/2023, consisted of 37 students.

3.2.2 Sample

Sample is part of the population taken for research which is considered to be representative of the population. According to Sugiyono (2016) the sample is part of the quantity and characteristics of the population, and what is taught from the sample will be given the conclusion to the population. However, in this study the entire population was used as a sample, namely the fourth semester students of the English education study program, totaling 37 students.

3.2.3 Sampling Technique

The sampling technique is a way of taking a representative sample from the population. According to Sugiyono (2016) data collection techniques are the most important process in research because the aim of research is to obtain data. The researcher employed the total sampling technique to obtain the information and data required. According to Sugiyono (2008) The total sampling technique is a sampling technique that gives members of the population the same opportunity to be selected as members of the sample. The use of total sampling can be done if the population is relatively small so that all members of the population are sampled (Sugiyono, 2015).

3.3 Research Instrument

The research instrument is an important factor to consider in research. Research instruments are used to measure the value of the variables to be studied

(Sugiyono, 2014). The instrument used in this research was a test. The type of test used is multiple-choice with a total of 25 questions with each aspect consisting of 5 questions. Students were given multiple-choice test which related to reading comprehension, then students answer on the answer sheets provided.

3.3.1 Conceptual Definition of Students Reading Comprehension

Reading comprehension is an activity that aims to obtain in-depth information and understanding of what is read. Reading comprehension is understanding the meaning or intent in a reading through writing.

3.3.2 Operational Definition of Students Reading Comprehension

Operational reading comprehension is the score obtained by students from working on multiple-choice questions regarding reading comprehension which consists of 25 questions. Because the test questions were multiple-choice, there were four possible answers, namely A, B, C, and D which consist of one correct answer and three wrong answers. Students were asked to choose one answer that they think correct when they have read the questions that have been provided. There are several aspects to assess difficulties in reading comprehension as proposed by Oakhill (1993, p.224-227) which include difficulties in integrating ideas of text, difficulties at the level of sentences, difficulties at the single-word level, difficulties in making inferences and difficulties in inferring implicit information of text.

3.3.3 Specification of Instrument Students Reading Comprehension

The reading comprehension test was used to investigate reading comprehension difficulties faced by students as reviewed by Oakhill (1993, p.224-

227). For more details, the following is the specification for the instrument of reading comprehension.

TABLE 1
SPECIFICATION INSTRUMENT OF READING COMPREHENSION

Variable	Aspect	Indicator	Question items	Item Number
Difficulties in Reading Comprehension	Difficulties in integrating ideas of text	Students are able to integrating ideas of the text.	5	2,5,12,16,21
	Difficulties at the level of sentences	Students are able to recognize the reference of the text.	5	7,15,17,19,23
	Difficulties at the single-word level	Students to guess the meaning of the words by findings synonym and antonym.	5	3,6,10,14,18
	Difficulties in making inferences	Students are able to determine the inferrend of the text.	5	9,11,13,22,24
	Difficulties in inferring implicit information from text	Students are able to infer implicit information of the text.	5	1,4,8,20,25
Total			25	

Source: Nuttal (as cited in Pahamzah & Viona, 2021)

TABLE 2
THE ANSWER KEY OF READING COMPREHENSION TEST

1.	A	6.	D	11.	D	15.	C	21.	C
2.	D	7.	C	12.	A	17.	A	22.	A
3.	B	8.	D	13.	C	18.	B	23.	C
4.	C	9.	D	14.	B	19.	C	24.	B
5.	B	10.	A	15.	B	20.	A	25.	D

In this case, an answer key is also attached, consisting of 6 answers A, B, D and 7 answers C. As for the form of the questions and answers of the participants can be seen in the attached sheet.

3.3.4 Validity of the Instrument

Validity is a measure that shows the level of validity of an instrument (Arikunto, 2010). Validity is an important quality of each test performed, content validation is used to measure the validity of the test items. Content validity is designed based on aspects of reading comprehension which have their respective indicators. Therefore, before the test instrument in the form of a multiple choice test is given to students, the validity of the questions is checked using a validation sheet in consultation with experts. In this case, the opinion of expert judgment was used to validate the instrument, namely Mrs. Rulik Setiani, S.S., M.Pd., and Mrs. Dewi Sri Kuning, M.Pd. The two experts were chosen because according to the researcher both of them were experienced experts in studying this research.

The validity of the instrument is calculated with formula point-biserial correlation (Brown, 2001):

$$r_{pbi} = \frac{M_p - M_q}{S_t} \sqrt{pq}$$

Where:

r_{pbi} : point-biserial correlation coefficient

M_p : whole-test mean for students answering item correctly

M_q : whole-test mean for students answering item incorrectly

S_t : standard deviation for whole test

p : proportion of students answering correctly

q : proportion of students answering incorrectly

This said valid if the calculation of r_{pbi} (r_{count}) was greater than r_{table} .

3.3.5 Reliability the Instrument

The reliability allude refers to a ilustration that an instrument can be believed to be used as tool to collect the data because that is instrument is good enough.

The researcher uses KR 20 Formula (Sugiyono, 2014). The formula was:

$$r_i = \frac{k}{k-1} \left(\frac{s_t^2 - \sum p_i q_i}{s_t^2} \right)$$

Where:

r_i : Internal reliability of the instrument

k : Number of question items

p_i : The proportion of people who answered each question item

q_i : $1 - p_i$

s_t^2 : Total variance

The criteria for instrument to be called reliable is if $r_i \geq 0,600$.

3.4 Data Collecting Technique

Data collection techniques are the types of techniques used by researcher to collect data. The data collection technique used in this study was the test technique. Tests could be in the form of a series of questions, worksheets, or the like that could be used to measure the knowledge, skills, talents and abilities of research subjects. The test is seen as a tool to measure students' mastery of skills and knowledge (Marsh et al., 2007, p.194).

There are several types of tests that are commonly used, such as multiple-choice, short answer, essay, matching and others. In this study, the type of test used was multiple-choice. According to Roediger and Guynn, 1996; Roediger and

Karpicke, 2006b (as cited in Marsh et al., 2007, p.195) multiple-choice tests provide significant remembrance benefits for a variety of reasons. Tests provide an extra study opportunity, retrieval practice and retrieval hints in the form of answer options. Given the numerous ways that multiple-choice exams might help memory, more testing may appear to be the natural prescription for improving learning and performance. The test used in this study was to find out students' difficulties in reading comprehension.

3.5 Data Analysis

Data analysis in research was carried out after the completion of data collection. According to Sugiyono (2018) data analysis techniques are activities after data from all respondents (population/sample) has been collected. After being given a reading comprehension test, correct and incorrect answers were used as indicators of student difficulty. In this study, students were classified as having difficulty in reading comprehension if the percentage of incorrect answers was more than 50% of the number of questions for each aspect. To determine the types of questions that are difficult for students, the following formula is used as Sudjono (2001) Suggested:

$$P = \frac{F}{N} \times 100\%$$

Where,

P = Proportion or index of Difficulty

F = Number of the students who answer the item incorrect

N = The total number of the students

Calculating the average percentage of incorrect answers using the mean:

$$A = \frac{\sum P}{N}$$

A = Average

$\sum P$ = The total percentage of incorrectness

N = Total questions for each aspect