

## **CHAPTER III**

### **THE METHODOLOGY OF THE RESEARCH**

#### **A. The Objective of The Research**

This research is done to find out the characteristic of the English summative test of the eighth-grade students on MTs Al-Khairiyah Bahari Jakarta Utara in 2020/2021 Academic Year for the difficulty level, the discriminating power, and the effectiveness of distracter.

#### **B. The Time and Place of The Research**

This research was conducted in MTs Al-Khairiyah Bahari Jakarta Utara which is located at Jl. Bahari III Blok A8 No. 152, Rt 08/Rw 01, Tanjung Priok Jakarta Utara. The study was limited for the semester of the eighth-grade students. The research was taken for a month in May 2021.

#### **C. The Population and Sample of The Research**

The population that the writer chose the test items of English summative test of the eighth-grade students of the second semester on MTs Al-Khairiyah Bahari Jakarta in 2020-2021 academic year. The writer used random sampling to get the students' answer sheets.

There were two classes MTs Al-Khairiyah Bahari Jakarta. Total populations of the eighth-grade student were 71 students. The writer took 50% of the populations as the samples. 50% from 71 are 35.5 or is rounded to be 36 students, which means that the writer took 18 students for each class randomly. The writer divided the samples into two groups: they were 27%

upper, 27% lower group. 27% from 36 are 9.72. It was rounded to be 10. So, the writer divided 10 students as an upper group and 10 as a lower group.

#### **D. The Method of the Research**

The method of the research is qualitative. The qualitative method is used to analyze the data to get the difficulty level, discriminating power, and effectiveness of distracter by using statistic formula. The result of the data is decided whether the item is maintained, revised, or discarded.

#### **E. The Instrument of the Research**

This research used the students' answer sheets of the English Summative test by e-learning and the answer key of the test for finding the good and bad data for the English test items.

#### **F. The Technique of Data Collecting**

To collect the data, the writer used an observation. As an observation, the writer visited the school to ask for the student's answer sheet and the paper of the English summative test from the English teacher of the Mid-Test of the eighth-grade students of MTs Al-Khairiyah Bahari Jakarta in the 2020 – 2021 academic year to be analyzed.

To get the result of the data, the writer used three formulas. There were the difficulty level, the discriminating power, and the effectiveness of the distracter.

##### **1. The Difficulty Level**

To count the difficulty level is:

$$DL = \frac{RU - RL}{N}$$

DL = Discriminating Level  
 RU = Right answer from upper group  
 RL = Right answer from lower group, and  
 N = The numbers of test takers

According to Arikunto's book,<sup>23</sup> to measure the difficulty level the teacher used those categories. If facility value is:

0.00 – 0.30 = difficult  
 0.31 – 0.70 = medium  
 0.71 – 1.00 = easy

## 2. The Discriminating Power

To count the power of discriminating, as follow:

$$DP = \frac{RU - RL}{0.5N}$$

DP = Discriminating power  
 RU = Right answer from upper group  
 RL = Right answer from lower group, and  
 N = The numbers of test takers

To know the criteria of the discriminating power, the writer uses the measurement level referred to Arikunto's book. If the discriminating power is:

0.00 – 0.20 = Very poor  
 0.20 – 0.30 = Poor  
 0.30 – 0.40 = Fair  
 0.40 – 1.00 = Good

<sup>23</sup> Arikunto, *Dasar-dasar Evaluasi Pendidikan*, 225.

### 3. The Effectiveness of Distracter

The writer adopted the formula from Arikunto and to measure the effectiveness of the distracter. Arikunto stated, “*A disorder can be said to be functional if at least 5% of the test follower chooses it*”.<sup>24</sup> It means that the distracter is effective if it is answered more than 5% by the test taker. In other words, the distracter works well if the lower group chooses the distracter more than the upper group.

### G. The Procedure of the Research

The procedures were done by using the steps:

1. Visiting the school to borrow the set test, the answer key, and the answer sheets during of the students.
2. Checking the answer key of the test to see whether the teacher made the answer key correctly. Then the results of this checking become the reference to the scoring.
3. Setting the answer sheets based on the scores (according to the rank of the students).
4. Taking 27% of the answer sheets of the highest rank (called the upper group) and 27% of the lowest scores (called the lower group) and then sum up the number of the correct responses given by both groups.
5. Tabulating the sum of the correct responses of each sheet in a tabulation format.

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<sup>24</sup> Arikunto, *Dasar-dasar Evaluasi Pendidikan Edisi 2*, 234.

6. Calculating the difficulty level, the discriminating power, the effectiveness of the distracter of each item using the provided formulas.
7. Identifying which items are needed to be revised or maintained based on the definition.
8. Identifying the causes of the item weakness and make some alternative revisions.