CHAPTER III

RESEARCH METHODOLOGY

In this chapter, the writer explains the Method of this study, operational definition, population and sample, technique for collecting data, validity and reliability, and technique for analyzing data.

A. Method of the Study

In this study, the writer used descriptive quantitative method. Descriptive study is defined as a study method that describes the characteristics of the population or phenomenon that is being studied (Hardani et al., 2020). Quantitative study emphasizes its analysis on numerical data processed by statistical methods. This methodology focuses more on the "what" of the study subject rather than the "why" of the study subject. In this study, the writer only described students' ability in using subject verb agreement without gave treatment to the student. The purpose of this study was to know students' ability in using subject verb agreement at English Education Students of Baturaja University.

B. Operational Definition

In this study, there were some terms which are needed to be defined operationally for the purposed study an analysis students' ability in using subject verb agreement at English Education Students.

1. **Ability**

   Ability is capacity and understanding of the person to do something.

2. **Subject Verb Agreement**

   Subject verb agreement is suitability between subject and verb in a sentence.

3. **Analysis of Students' Ability in Using Subject Verb Agreement**

   Analysis of students' ability in using subject-verb agreement is an attempt to check the students' ability in using subject-verb agreement.

4. **Students' subject-verb agreement ability**

   Students' subject-verb agreement ability is the students' capability to use the subject and verb of a sentence well based on the English grammatical rule, so the meaning of a sentence can be understand well.

C. **Population and Sample**

    a. **Population**

Population is a group of individuals who gave the same characteristic and from which a sample could be took. In other word, population is a large number of the study object which going to be investigate in the study. Population is group of individual who have the same characteristics (Cresswell & David, 2018). The population in other words, is the group of interest to the writer, the group to whom the writer would like to generalize the results of the study. Population of this study were all of students in English Education Study Program at Baturaja

University in academic year 2022/2023 that consisted of 91 students. There are second, fourth, sixth, and eight semester of English Education Students in Baturaja University.

Table 1

Population of the Study

No.	Semester	Number of Students
1	2	22
2	4	16
3	6	29
4	8	24
Total		91

Source: Universitas Baturaja, Academic Year 2022/2023

b. **Sample**

Sample is a subgroup of the target population that the researcher plans to study to study for generalizing about the target population (Creswell, 2018). Sample is a set of elements taken from a larger population according to certain rules (Johnson, 2014). Sampling is process to selecting individuals as sample. In this study, writer used total sampling because the total population under 100. So, all of the population is sample. According to Sugiyono (2014), total population sampling is a sampling technique where the whole members of population are treated as sample. Sample of this study were all of the students of English Education Study Program academic year 2022/2023.

Table 2

Sample of the Study

No	Semester	Number of Students
1	2	22
2	4	16
3	6	29
4	8	24
Total		91

Source: Universitas Baturaja, Academic Year 2022/2023

D. Technique for Collecting Data

Collecting data means identifying and selecting individuals for a study, obtaining their permission to study them, and gathering information by asking people questions or observing their behaviors (Creswell & David, 2018). In collecting the data the writer used grammar test that consisted 40 test items. Tests can concern achievement (what a person can do or knows), diagnosis (where the strengths and weaknesses of a student are; where the student is going wrong or having problems), aptitude (what the student is good at doing), proficiency, performance, speed, and so on (Cohen et al., 2018). The purpose of the test was to finding out students' ability in using subject verb agreement. The students answered the test by circle the answer. The duration of the test

was 60 minutes. There are five indicators that used in the test item as follow table below:

Table 3

Subject Verb Agreement Test Item

	Aspect	Number of Item	Total of Item
1	Final –s/-es	1,6,11,16	4
2	Basic Subject Verb Agreement (SVA)	2,7,12,17,21,22,26,27 32,37	10
3	SVA using Expression of Quantity	3,8,13,18,23,28,33, 38	8
4	SVA using There + Be	4,9,14,19,24,29,34,39	8
5	SVA using Some Irregularities	5,10,15,20,25,30,31,35, 36,40	10
	Total		40

E. Validity and Reliability

a) Validity of the Test

Validity is an important key to effective research. If a piece of research is invalid then it is worthless. Addressing validity concerns the

nature of what is valid, what validity means, how to know if one has achieved an acceptable level of validity, how to address validity in research terms and how validity enters design, inferences and conclusions (Cohen et al., 2018). Content validity refers to the instruments must show that fairly and comprehensively cover the domain or item that is purpose to cover (Widiastuti, 2021). To make the test had a high degree of content validity, the writer devised the test item in accordance with the objective of the test that was to find out students' ability in using subject verb agreement at English Education Students of Baturaja University. Table 4 below presented the specification of the test item.

Table 4

Specification of test item

Objective of the Test	Indicators	Number of item	Type of the Test	Total Number of Item
To find out the English Education Students' ability in using Subject Verb Agreement at Baturaja University	1. Final s/es	1,6,11,16	Multiple choice	40
	2. Basic Subject verb Agreement	2,7,12,17,21, 22,26,27,32, 37		
	3. SVA using Expression of Quantity	3,8,13,23,28, 33,38		

	4. SVA using There+Be	4,9,14,19,24, 29,34,39		
	5. SVA using some Irregularities	5,10,15,20,25 30, 35,36,40		

To check whether the instrument has a good validity or not, the writer checked the difficulty index of the instruments. The writer used the SPSS version 26. The writer used non sample to try out the instrument, which consisted 20 students at English Education Students of Nurul Huda University. Here to checked significance level of the test was 0,05 or 5% from the confidence and the value r_{table} of this test was 0.4438 (df=N-2=18). To know whether the test item was valid or not the writer concluded two hypotheses below:

1. If the critical value ($r_{score)}$ was positive and more than (r_{table}), it means that the item was valid.

2. If the critical value (r_{score}) was negative and less than (r_{table}), it means that the item was invalid.

The result of instruments validity was shown as table below:

Table 5

Validity of the test

Items	R Obtained	R Table	Criteria
1	. 835	0,4438	Valid
2	. 871	0,4438	Valid
3	. 907	0,4438	Valid
4	. 880	0,4438	Valid
5	. 798	0,4438	Valid
6	. 907	0,4438	Valid
7	. 835	0,4438	Valid
8	. 798	0,4438	Valid
9	. 835	0,4438	Valid
10	. 798	0,4438	Valid
11	. 835	0,4438	Valid
12	. 813	0,4438	Valid
13	. 835	0,4438	Valid
14	. 813	0,4438	Valid
15	. 798	0,4438	Valid
16	. 813	0,4438	Valid
17	. 907	0,4438	Valid
18	. 835	0,4438	Valid

19	. 813	0,4438	Valid
20	. 813	0,4438	Valid
21	. 769	0,4438	Valid
22	. 907	0,4438	Valid
23	. 769	0,4438	Valid
24	. 907	0,4438	Valid
25	. 907	0,4438	Valid
26	. 733	0,4438	Valid
27	. 907	0,4438	Valid
28	. 835	0,4438	Valid
29	-. 254	0,4438	**Invalid**
30	. 740	0,4438	Valid
31	. 835	0,4438	Valid
32	. 122	0,4438	**Invalid**
33	. 907	0,4438	Valid
34	. 827	0,4438	Valid
35	. 827	0,4438	Valid
36	. 907	0,4438	Valid
37	. 907	0,4438	Valid
38	. 907	0,4438	Valid
39	. 835	0,4438	Valid
40	. 907	0,4438	Valid

After the writer did test validity to instrument, the writer concluded that from 40 test items there were 2 items (test item number 29 and 32) invalid. So, the writer just used 38 test items which were valid as the instrument of the test in this study.

b) Reliability of the Test

Reliability means that the consistency and stability of the score from an instrument (Cresswell, 2018). To estimate the instrument was reliable or not, the writer was found the reliability by used Cronbach Alpha Test. The writer used SPSS 26 program to calculate the reliability of the instrument to know whether the test items reliable or not, the writer concluded two hypotheses as follow:

1. If the Cronbach alpha point was more than 0,70 it means that items were reliable.

2. If the Cronbach alpha was less than 0,70, it means that the items were not reliable.

Table 6

Reliability of the Test

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.986	.986	40

Based on the data analysis, it was found that the Cronbach alpha's point was 0,986 it was more than 0,70. So, it means that the items of the instruments were reliable and could be used as the instrument of the research.

F. **Technique Analyzing Data**

a) Scoring

To scoring students' individual score of the test writer used formula as follow:

$$S = \frac{B}{N} \ x \ 100$$

Where:

S = Score of test

B = Total of Students' correct answer

N = Total of question

b) Classify students' Criteria

To classify students' score criteria used score interval as follow :

Table 7

Students Score Criteria

No.	Interval Score	Scale	Classification
1	80-100	A	Very good
2	66-79	B	Good
3	56-65	C	Fair
4	41-55	D	Poor
5	00-40	E	Fail

Source: Arikunto (2012).

c) Calculated the percentage of students' score category used formula.

Here was the formula :

$P = \frac{f}{N} \times 100$

Where:

P = Percentage of students' score category

f = Frequency of students who were categorized

N = Number of students

d) Finding out mean of students' score. The writer calculated mean of students score with formula.

Here was the formula:

$$\overline{X} = \frac{\sum xi}{\sum fi}$$

Where:

$\overline{X}$ = Mean

$\sum xi$ = Total of students' score

$\sum fi$ = Total number of students

e) Finding out the percentage of student answer. In calculated percentage of students answer the writer used formula.

Here was the formula:

$$S = \frac{B}{t \; x \; N} \; X \; 100\%$$

Where:

S = Percentage of Students' correct answer

B = Total of Students' correct answer

N = Total number of test item

t = Total of student