

CHAPTER III

RESEARCH METHOD

A. Research Design

The purpose of this study is to investigate how male and female students in the English Education Department approach composing paragraphs and to ascertain whether there are notable disparities in their abilities. It means the researcher compares the English department students in paragraph writing result by score. Thus, the writer uses a quantitative approach in this research.

(Gay et al., 2012) defines quantitative research as any kind of data collecting and analysis involving numbers in order to explain, forecast, control, or characterize events of interest. Ex post facto design is one of the study designs used in quantitative approaches. This study also called causal comparative study. A causal comparative study is a type of research design that examining the connection between a predictor variable and an outcome variable certain actions or events that have occurred naturally.

B. Research Setting

The study conducted at Antasari State Islamic University in Banjarmasin, Indonesia, in the Tarbiyah and Teacher Training Faculty at English Education Department. This site was chosen based on a number of criteria. First of all, the school is renowned for its English instruction, which makes it an ideal location to study the ways in which gender differences in paragraph writing skills manifest. The multicultural and diverse environment at the institution may also lead to a large and varied sample of participants. In order to guarantee a thorough analysis of the subject, the study run for the whole 2023 academic year.

C. Population and Sample/Participants

To guarantee the validity and generalizability of results in quantitative research, it is essential to precisely define the target population and choose a representative sample. According to (Djamba & Neuman, 2002), the main purpose of sampling in quantitative research is to establish a representative sample, which is a chosen small group of instances or units that closely mimics or reflects characteristics of interest in a larger group of cases known as the population. The minimal sample size often varies depending on the kind of study being conducted. For causal-comparative and true experimental studies, a minimum of 30 participant in each group is recommended (Gay et

al., 2012) however, because the population of English education students is 66 with 40 women and 26 men, it is difficult to adjust the situation to the desired number of participants. According to Arikunto (Siregar, 2022) says that if the subject is less than 100, then the entire population becomes the research sample. The researcher decided to take the entire population with the number per group according to the number available.

Table 3.1:

Description of the population of male and female English department student's academic year 2023

No	Class	SEX		SUM
		Male	Female	
1.	23 A	8	15	23
2.	23 B	10	13	23
3.	23 C	7	13	20
Total	3	25	41	66

D. Data

The information used in this study came from the results of a paragraph writing test that was administered as part of the final exam. The test evaluated students' comprehension of how to write both descriptive and explanatory paragraphs by analyzing five main elements: organization, content, grammar, vocabulary, and mechanics. Each element was graded

using a standardized rubric that was created in cooperation with the lecturer on paragraph writing.

This study required a trustworthy data source in order to get the accessible data. The research focused on the English Education Department's male and female students as the data source. The information was gathered between June 12 and June 20, 2024, during the last test session. 66 students, 40 of whom were female and 26 of whom were male, took the final exam during the 2023 school year. To guarantee uniformity and impartiality in the evaluation process, the test was administered under uniform circumstances.

The researcher concentrated on examining both explanatory and descriptive paragraphs that the students had written. To ensure reliability in scoring, each paragraph was assessed independently by two raters using the standardized rubric, and a third rater was consulted to settle any significant score differences.

E. Technique of Data Collection

The data collection for this research conducted through a paragraph writing test final exam. The test conducted during the final examination period, specifically on June 12 and June 20, 2024, for students enrolled in the 2023 academic year. The following are these stages:

1. Planning and Preparation

The data collection process begins with thorough planning and preparation. This initial phase involves several crucial steps to ensure smooth test administration. First, the researcher prepared all necessary test materials, including writing prompts and standardized rubrics for evaluation. Coordination with paragraph writing course lecturer to establish appropriate test schedules that accommodate all participants. Additionally, the researcher verified the availability and readiness of classrooms and other resources needed for the testing process.

2. Test Administration and Collection

The researcher gave precise and comprehensive instructions on the requirements, format, and time limits, and the writing exam was given on a prearranged timetable. In order to maintain academic integrity and guarantee fair circumstances for every student, the researcher keeps a careful eye on the testing environment and takes care of any logistical or technological problems that may come up. After the exam was finished, the researchers used a methodical strategy to gather and arrange all of the test papers, making sure that none were lost. To assist further analysis and protect participant identity, the articles are categorized by gender. A thorough file system was put in place to handle the test materials'

digital and physical copies, guaranteeing data integrity and facilitating effective analysis in the research's subsequent stages.

3. Assessment

The researchers utilize a scoring rubric modified from (H. Douglas Brown, 2000) to analyze the paragraphs using a standardized rubric that evaluates five essential components: organization, content, grammar, vocabulary, and mechanics. Following the scoring of each component, the researchers analyzed the data using three primary criteria: content, organization, and language features (vocabulary, grammar, and mechanics). The researchers analyzed the data using three main criteria: content, organization, and language features (vocabulary, grammar, and mechanics) and grouped them according to adapted score categories.

F. Research Instrument

A writing exam intended to evaluate students' proficiency in composing paragraphs served as the study's research tool. This exam was created in cooperation with the professor on paragraph writing and complies with the standards of the English syllabus. Two writing assignments make up the test, which assesses students' proficiency in creating explanatory and descriptive paragraphs.

In question item 1. Students are expected to write a description paragraph with complete formation of elements to ensure the paragraph is cohesive and coherent. Students are required to write the primary sentence at the beginning of the opening sentence in a clear and effective manner, followed by supporting phrases and the concluding statement that summarizes the paragraph's conclusion. In this question, students are expected to be able to describe an object either a place, food, or person that has a deep impression so that it can provide visualization to the reader.

In question item 2. Students are expected to write an expository paragraph with complete formation of elements to ensure the paragraph is cohesive and coherent. Students should start the opening sentence with the primary statement, which should be written properly and efficiently. The main sentence should then be backed by supporting sentences, and the final sentence should indicate the conclusion of the paragraph. Students are asked to describe a general phenomenon that is currently occurring in this question, as well as the explanations given in the main line. Students should additionally support the statement of a topic being explored in this paragraph with examples or tangible proof.

In order to comprehensively assess students' writing proficiency, the evaluation is based on a detailed scoring rubric that considers five critical aspects: organization, content, grammar, mechanics, and vocabulary. The

scores are categorized into four distinct ranges: Excellent (90-100), Good (75-89), Fair (60-74), and Poor (0-59). Each category reflects the student's ability to construct cohesive and coherent paragraphs, with a clear primary sentence, well-structured supporting sentences, and a strong concluding statement. This rubric ensures that students receive accurate and constructive feedback on their writing skills, helping them to identify areas of strength and opportunities for improvement.

Table 3.2: Score Categorization

Category	Range
Excellent	90-100
Good	75-89
Fair	60-74
Poor	0-59

G. Data Analysis

SPSS software used for the statistical analysis so the findings shown in easily comprehensible tables and figures to make comparing the two groups easier.

1. Assumptions Test

In order to test statistical hypotheses, researchers first determine which test statistics are appropriate to use, whether using

parametric or non-parametric statistical tests. In using parametric and non-parametric statistical tests, it is necessary to carry out the analysis requirements test in the form of normality test and homogeneity test.

a. Normality Test

In order to employ either parametric or nonparametric statistics in subsequent statistical procedures, the normality test seeks to ascertain if the distribution of research data is normal. According to (Syafriani et al., 2023), The following procedures are used to perform the Liliefors (Lo) test, which is used to determine the data normalcy. The significance level, which is set at the 5% significance level (0.05) with the suggested hypothesis, is determined as follows:

Normality Test Hypothesis

- H1: Data is normally distributed.
- H0: Data is not normally distributed.

Criteria for Acceptance of Normality Test Hypothesis

- If $\text{sig} > 0.05$, then data is normally distributed (H1 accepted, H0 rejected).
- If $\text{sig} < 0.05$, then data is not normally distributed (H0 accepted, H1 rejected).

b. Homogeneity Test

The homogeneity test is used to determine whether some population variants are the same or not. This test is carried out as a requirement in the independent sample test and Anova analysis (Sianturi, 2022). The Harley, Cochran, Levene, and Barlett tests are a few of the widely used and well-liked approaches for performing homogeneity test computations. Homogeneity test calculations with the Levene test were carried out using SPSS software, namely by interpreting the Levene test, if the Levene Statistic value > 0.05 then it can be said that the data variation is homogeneous.

Homogeneity Test Hypothesis

- H1: Data is homogeneously distributed.
- H0: Data is not homogeneously distributed.

Criteria for Acceptance of Homogeneity Test Hypothesis

- If $\text{sig} > 0.05$, then data is homogeneously distributed (H1 accepted, H0 rejected).
- If $\text{sig} < 0.05$, then data is not homogeneously distributed (H0 accepted, H1 rejected).

2. Unpaired data difference test

After the assumption test has been carried out, the next step is to conduct a t-test. If the data from the assumption test is normally distributed and homogeneously distributed, then the statistical analysis used is parametric statistical analysis, namely the independent t test.

However, if one of the assumption tests is not normally distributed, both the normality test and the homogeneity test, then the statistical analysis used is a nonparametric test analysis such as Wilcoxon or Mann-Whitney U.