

CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

This research used quantitative approach with a correlational research design. Creswell (2012) referred a correlation is a statistical test that identifies the pattern of consistent variation between two or more variables or data sets. According to Gay, et al (2012) “Correlational research involves collecting data in order to determine whether, and to what degree a relationship exists between two or more quantifiable variables.” This correlation research design was used because this research aimed to examine the correlation between students’ learner autonomy and writing skills in narrative text. There were two variables in this research, students’ learner autonomy and writing skill in narrative texts.

In this research, the researcher had two kinds of variables, the independent variable and dependent variable. The independent variable is students’ learner autonomy symbolized by ‘X’ and the dependent variable is writing skills in narrative texts symbolized by ‘Y’.

B. Location and Time

This research was conducted at SMA Negeri 2 Tembilahan. It was located on Tanjung Harapan Street, Sungai Beringin, Tembilahan, Indragiri Hilir, Riau, Postal Code 29214. The researcher started the research in March 2025.



C. Population and Sample of the Research

1. Population

The population of this research was the XI grade students of SMA Negeri 2 Tembilahan. The number of students was not too large, namely 83 students. The following was the population for the 2024/2025 academic year.

Table III.1. Population of the Research

No.	Class/Major	Number of Students
1.	XI M.1	29
2.	XI M.2	28
3.	XI M.3	26
	TOTAL	83

2. Sample

The sample is part of the population to be analyzed. Sample must be representative as one is to be able to generalize with confidence from the sample to population. The procedure to get the sample was that the researcher used probability sampling. According to Creswell (2012) Probability sampling enables the researcher to select individuals from the sample who are representative of the population and draw generalizations about the population.

The sampling technique in this research used simple random sampling. According to Gay et al (2012: 131), random sampling is the process of picking a sample in such a way that every person in the defined population has an equal and independent probability of being chosen for the sample. The researcher



utilized simple random sampling because the populations are homogeneous. It means that every student has an equal chance of being chosen as a sample.

The size of the sample was chosen using the Slovin formula (Soesana, et al, 2023: 45), with a 10% tolerance level.

$$n = \frac{N}{1 + N(e)^2}$$

Which:

n : Total of sample

N : Total of Population

E : Tolerance level of incorrect sampling is 10%

Based on the Slovin formula, population of 83 students, and level of fault tolerance 10% or 0.1, so the size of the sample could be formulated as follow:

$$n = 83 / (1 + (83 \times 0.1^2))$$

$$n = 83 / (1 + (83 \times 0.01))$$

$$n = 83 / 1.83$$

$$n = 45.36$$

Based on the calculation above, the sample size is 45.36. To avoid an odd number of respondents, the researcher took 45 students as a sample to represent the population. As a result, the number of samples selected varies by class. In determining the sample, the researcher will take it at random using a



random number, then take the element identified by that number as a sample. For example, if the random numbers generated are 5, 22, and 42, then individuals who have these numbers in the population will be the sample in this study.

D. Research Instrument

To support this research, researcher choose the research instrument by using questionnaire and test, because the aim of this research is to know is there any relation between two variables, students' learner autonomy and writing skills in narrative texts.

1. Questionnaire

Questionnaire is one of the instruments used in this research. Questionnaires are very important because they are used to collect data based on real student responses. According to Sugiyono (2017), a questionnaire is an instrument used to collect data, the instrument is usually in the form of questions covering the aspects to be studied. The participants have to select the response on the scale that reflect their opinion about statement. The participants were given 20 statements adapted from Fikri (2017). Every statement represents three characteristics of learner autonomy; *Learning Strategies, Meta-cognitive Knowledge, and Learner Attitude*.



Table III.2. Alternative Score for Learner Autonomy

No	Option	Score Positive Statement	Score Negative Statement
1	Always	5	1
2	Often	4	2
3	Sometime	3	3
4	Rarely	2	4
5	Never	1	5

Table III.3. Blueprint of the Questionnaire

Variable (X)	Indicators	Numbers of Item
Learner Autonomy	Learning Strategies	1-7
	Meta-cognitive Knowledge	8-14
	Learner Attitude	15-20

2. Test

A test was used as an instrument in this research. According to Ary et al. (2010), a test is a series of stimuli provided to an individual in order to elicit reactions from which a numerical score can be ascribed. The test utilized is an essay test designed to measure students' writing skill. The researchers utilize criteria to quantify data based on the following writing assessment components: content, organization, vocabulary, language use, and mechanic. During the test, researchers will be utilized a camera to take picture during the treatment as the researchers' documents.



Table III.4. Blueprint of the Test

Variable (Y)	Indicators	Item (Topic)
Students' Writing Skill of Narrative Text	1. Content	1. The Legend of Lancang Kuning 2. The Legend of Batang Tuaka 3. The Legend of Batu Belah Batu Betangkup
	2. Organization	
	3. Vocabulary	
	4. Language Use	
	5. Mechanics	

3. Validity of Questionnaire

The most important criterion is validity, which reveals how well an instrument measures what it is designed to assess. In other words, validity is the degree to which differences discovered using a measuring instrument represent true differences between individuals being asked or tested. According to Creswell (2012) in Nasution (2021: 46), validity is the extent to which conclusions drawn from assessment results are relevant, meaningful, and valuable in light of the assessment's aim.

According to Brown (2004) in Nasution (2021: 47), there are four types of validity in research such as, content validity, construct validity, criterion validity, and consequential validity. The researcher used content validity to determine the validity of the questionnaire, content validity aims to test an instrument so that the instrument can be said to be valid according to its content, the content here is the material.

4. Reliability of Questionnaire

Reliability refers to the consistency and dependability of a system, process, or product to perform its intended function without failure under specified conditions over a specified period of time. It means a reliable test will





Hak Cipta Dilindungi Undang-Undang

1. Dilarang memperbanyak atau mendistribusikan dokumen ini untuk tujuan komersial tanpa izin tertulis dari penulis atau pihak berwenang.
 2. Penggunaan untuk kepentingan akademik, penelitian, dan pendidikan diperbolehkan dengan mencantumkan sumber.
 3. Penggunaan tanpa izin untuk kepentingan komersial atau pelanggaran hak cipta dapat dikenakan sanksi sesuai dengan UU Hak Cipta di Indonesia.
 4. Plagiarisme juga dilarang dan dapat dikenakan sanksi.
 5. Universitas hanya berhak menyimpan dan mendistribusikan dokumen ini di repositori akademik, tanpa mengalihkan hak cipta penulis, sesuai dengan peraturan yang berlaku di Indonesia.

Universitas Islam Indragiri

give results that do not change in several tests carried out on the same group of people (Nasution, 2021: 49). In this study, the reliability test was carried out using the Cronbach's Alpha method. According to Dewi & Sudaryanto (2020), a variable is considered reliable or consistent in measurement if its Cronbach's Alpha value is greater than 0.60.

E. Data Collection Technique

In this research, the researcher used the technique of collecting questionnaire for variable X (students' learner autonomy) and a test for variable Y (students' writing skills in narrative texts). In the technique of collecting questionnaire, researcher used a list of questions in this research. The list of question was given to the respondent to answer using the Likert scale. In this case the researcher used the Likert scale to determine students' learner autonomy (X). The scale of the questions was measured from the choice in the answer, such as always, often, sometime, rarely, and never. Therefore, in the technique of collecting the test, the researcher measured the writing skills of the students by giving writing skill test. Furthermore, the researcher measured the writing skills of the students by testing them to write a paragraph of narrative text.

F. Data Analysis Technique

After collecting the data from the students, the next step is analysis the data. Data analysis is the process of answering a problem statement using formulation or existing statistical approaches. Data analysis involves arranging, organizing, and sorting data using code and even formulation.



1. Likert Scale Analysis

This study used five response choices for the respondents to answer the positive questionnaire: 5 for always, 4 for often, 3 for sometimes, 2 for rarely, and 1 for never. For the negative questionnaire, the scale was 1 for always, 2 for often, 3 for sometimes, 4 for rarely, and 5 for never. After grouping the answers, the researcher counted each response. To determine the interval distance between attitude levels ranging from always to never, the following formula is used:

$$P = F / N \times 100\%$$

Explanation:

P = Percentage

F = Frequency / Number of respondents' answers

N = Total number of respondents

(Azizah, 2023: 55)

Table III.5. Categorization of Questionnaire Percentage Results

No.	Interval	Category
1	86-100%	Very Good
2	76-85%	Good
3	60-75%	Adequate
4	55-59%	Poor
5	≤54%	Very Poor

(Purwanto, 2016)

2. Writing Skill Analysis

In this research, the data analysis technique for writing skill was carried out through several steps. First, the students' writing results were collected from



1. Dilarang memperbanyak atau mendistribusikan dokumen ini untuk tujuan komersial tanpa izin tertulis dari penulis atau pihak berwenang.
2. Penggunaan untuk kepentingan akademik, penelitian, dan pendidikan diperbolehkan dengan mencantumkan sumber.
3. Universitas hanya berhak menyimpan dan mendistribusikan dokumen ini di repositori akademik, tanpa mengalihkan hak cipta penulis, sesuai dengan peraturan yang berlaku di Indonesia.

the writing test, in which they were asked to compose a narrative paragraph. Then, the researcher asked the English teacher to assess the students' writing based on five components: content, organization, vocabulary, language use, and mechanics. Each component was scored using an analytic scoring rubric adapted from Abbas (2015). After scoring, the researcher calculated the total score for each student. The results were then analysis to determine the overall writing skill level of the students. To support statistical interpretation, the data were processed using SPSS version 23 to calculate the mean, frequency, and percentage of students' writing skills.

Table III.6. Categories of Writing Skill Percentage Results

Interval	Category
86-100%	Very Good
71-85%	Good
56-70%	Fair
10-55%	Poor

(Abbas, 2015)

3. Correlational Analysis

To investigate whether or not the significant correlation between students' learner autonomy and writing skills in narrative texts among the XI grade students of SMA Negeri 2 Tembilahan in the academic year of 2024/2025, the researcher analyzes the data by using pearson product moment correlation as follow:

$$r_{xy} = \frac{N. (\sum XY) - (\sum X) (\sum Y)}{\sqrt{[N. \sum X^2 - (\sum X)^2][N. \sum Y^2 - (\sum Y)^2]}}$$

Where:

R_{xy} = The coefficient of correlation between independent variable and dependent variable

N = Number of Students

X = Independent Variable

Y = Dependent Variable

The Interpretation of Correlation

0.00 - 0.199	Very low correlation
0.20 - 0.399	Low correlation
0.40 - 0.599	Moderate correlation
0.60 - 0.799	High correlation
0.80 - 1.000	Very high correlation

(Sujarweni, 2015:6)

Hypothesis testing

If r_{observed} is greater ($>$) than r_{critical} value (table), null hypothesis is rejected and alternative hypothesis is accepted, if r_{observed} is less ($<$) than r_{critical} value (table), thus null hypothesis is accepted and alternative hypothesis is rejected. On the other hand, the researcher also analyzed the data with SPSS 23 program for windows.

4. Contribution Analysis

To determine the contribution between students' learner autonomy and writing skills narrative texts, the researcher analyzed the data using the coefficient of determination. The researcher analyzed the data to know more clearly highest or lowest contribution variable X to variable Y as follow:



Determination Coefficient

$$KP = r^2 \times 100\%$$

(Ridwan, 2016)

For example:

$$\begin{aligned} KP &= (0,8240)^2 \times 100\% \\ &= 0,6789 \times 100\% = 67,89\% \end{aligned}$$

This means that the contribution of learner autonomy to students' writing skill of narrative text is 67.89% and the remaining 32.11% is determined by other variables.

