CHAPTER 3
RESEARCH METHODOLOGY

3.1 Research Design

This study used a correlational research model as one of the non-experimental research quantitative methods. It was called correlational research because its aim is not to affect the variables but to define the correlations between them. The degree to which two or more quantitative variables are connected is described through a correlational study (Fraenkel et al., 2016). This method was chosen because it can answer the research question.

3.2 Research Variables

In this research, there were two variables. The first variable was social media usage as the independent variable (X). Meanwhile, the second variable was students' vocabulary mastery as a dependent variable (Y). Sugiyono (2017) said that independent variables as variables that influence other variables. Meanwhile, the dependent variables that variables were influenced by other variables (Sugiyono, 2017). In other words, independent variables influence dependent variables, meaning in this research, social media usage influences students' vocabulary mastery.

3.3 Population and Samples

This research was carried out in one of the Junior High Schools in Tasikmalaya, West Java, Indonesia. The population was all the students from the school, a total of 1052 students. Meanwhile, the sample was 40 students. The sampling technique used was convenience sampling. As stated by Sugiyono (2017), convenience sampling was a sample data collection technique in which respondents based on anyone who happened to meet the researcher and suit the required criteria were used as a sample. In addition, the required criteria, were as follows:

1) Students from Junior High School 3 Tasikmalaya
2) Used TikTok, Instagram and YouTube.

3.4 Data Collection

According to Sugiyono (2017), data collection was the primary objective of research, and data collection procedures were the most crucial stage in the

process. Moreover, the questionnaires and test were used as the data collection. The questionnaires used for social media usage (variable X), which was adopted from Sabekti (2019), and tests for students' vocabulary mastery (variable Y).

3.4.1 Questionnaire

A questionnaire was used to measure social media usage (variable X). The questionnaire has a function to collect the data from samples by giving some statements to be answered by samples. Furthermore, this research conducted a questionnaire adopted from Sabekti (2019). In Sabekti's study, the questionnaire was measured using the indicator from the Scale Intensity of Social Media Usage, which contains four aspects (attention, comprehension, frequency, and duration).

The questionnaire was filled out by participants using the Likert Scale method. Likert Scale was a technique for assessing attitudes, opinions, and perceptions on social issues among individuals or groups. Determination of the score or value for each questionnaire answer using a Likert Scale with response options were strongly agree, agree, disagree, strongly disagree.

Table 3. 1 Likert Scale

No	Responses	Score (+)	Score (-)
1	Strongly agree	4	1
2	Agree	3	2
4	Disagree	2	3
5	Strongly Disagree	1	4

3.4.2 Test

The test was used to measure students' vocabulary mastery (variable Y). It refers to measuring vocabulary mastery aspects, such as spelling and meaning. Furthermore, the test consists of several types of questions, specifically translation, matching, and multiple-choice, that must be answered using vocabulary that often

appears on social media. In addition, the test was distributed after conducting a validity and reliability test.

3.4.3 Validity Test

A validity test is a kind of evaluation that measures the extent to which an assessment test or assessment tool accurately measures what it was intended to measure. Moreover, the basis for making validity decisions is if the r_{value} was higher than r_{table} ($r_{value} > r_{table}$), it could be said valid. The formula for the validity test is as follows:

$$r_{xy} = \frac{n \sum X_i Y_i - (\sum X_i)(\sum Y_{i)}}{\sqrt{(n \sum X_i^2 - (\sum X_i)^2)(n \sum Y_i^2 - (\sum Y_i)^2)}}$$

Note

r_{xy}	= Correlation coefficient
n	= Number of respondents
X	= Score of each item
Y	= Scores of all respondent items

After the test instrument was given to the non-sample to find out the validity of the instrument, it was found that from 53 questions, there were 25 items valid. Furthermore, the r_{table} was 0.423 since the respondent was 22 people, which was valid for the instrument test and was about 0.450 – 0.785 (see enclosures 5 and 7).

3.4.3   Reliability Test

The reliability tests were carried out to find out whether the instrument can be used many times and produce consistent data or not. Furthermore, a reliability test was used to show a level of precision, accuracy, and consistency even though the insrtrument was used twice or more at other times.

The reliability value stated by Alpha Cronbach based on the low limit of reliability criteria was 0.6. According to Ghazali (2011), if the testing requirements were higher than 0.6 (Cronbach's Alpha > 0.6), the data instrument was reliable. Here is the formula used for the reliability test

$$r_{11} = \left(\frac{n}{n-1}\right)\left(1 - \frac{\Sigma\sigma_t^2}{\sigma_t^2}\right)$$

Note

r_{11} = Coefficient reliability

n = Number of questions

$\Sigma\sigma_t^2$ = Variant of question scores-

σ_t^2 = Total score variation

After the instrument was given to the non-sample to find out the reliability of the instrument, it can be concluded that the instrument was reliable because the Cronbach's Alpha > 0.6 (0.871 > 0.6.) (see enclosure 6)

3.5 Data Analysis

In this research, the researcher conducted a normality test before analyzing the data to find out if the data distribution of both variables were normal or not. If the data distribution of the both variables were normal the researcher would use Pearson Product Moment. Meanwhile, if the distribution of the both variables or one variables were not normal, the researcher would use Spearman. In addition, the data analysis of this research used IBM SPSS Statistics 24.

3.5.1 Normality Test

Normality test was used to know whether the data distribution was normal or not and also to determine the statistical test for the research hypothesis. The distribution of the data is normal if asymp. Sig is higher than 0.05 (asymp. Sig > 0.05). Meanwhile, the distribution of the data was said not to be normal if asymp.

Sig is lower than 0.05. (asymp. Sig < 0.05). The normality test was measured using SPSS 24 with Kolmogorov-Smirnov.

After distributing the data, it was found that both of the variables were normal since both of the asymp. Sig > 0.05. Specifically were 0.086 > 0.05 and 0.075 > 0.05 (see enclosure 9). In conclusion, the statistical test used for this research was Pearson Product-Moment.

3.5.2 Correlational Test

A correlation test was used to measure how far two variables were related to each other. Furthermore, it was found that the distribution of the data of the two variables was normal, this research used Pearson Product-Moment. In addition, correlational tests were used to determine if there was any correlation between two variables and how strong and directional the relationship was.

3.6 Research Schedule

To be more effective and efficient in conducting this study, I made a research schedule as follows :

Table 3. 2 Research Schedule

Description	Sept 2023	Oct 2023	Nov 2023	Feb 2024	March 2004	Mei 2024	June 2024
Research topic and approval	■						
Research proposal writing	■	■					
Approval research proposal			■	■			
Research proposal examination			■				
Data collection				■			

Data analysis

Report

Thesis Result
Seminar

Thesis
Examination