

CHAPTER III

RESEARCH METHOD

This chapter talks the research methodology. It includes the research design, population and sample, research instruments, validity, reliability, data collection, and data analysis.

A. Research Design

This study applied the correlational approach. It employs correlational statistics to quantify the relationship between variables. Correlational research entails gathering data in order to statistically assess a correlation of two or more measurable variables using correlation coefficient, which indicates how closely related the variables are.

When there is a positive correlation, both variables increase or decrease together. Strongly positive correlations are shown by correlation coefficients that are close to +1.00. A negative correlation between two variables indicates that as one rises, the other falls. Strongly negative correlations are indicated by correlation coefficients that are close to -1.00.⁷⁴

To determine the significance of the relationship between three variables, the researcher selects this kind of study based on quantitative coefficient correlation statistics. In detail, the variables used in this study were social media used perception, self-efficacy, and speaking skill.

⁷⁴ Wiersma, W. "Research Methods in Education." *USA: A Pearson Education Company*, (2000): 67.

B. Population and Sample

Population is known as subjects or objects group with specific qualities and traits that are investigated by researchers and conclusions are made from.⁷⁵ Students of SMAN 7 Kediri who are at the tenth grade made up the population of this study. There were 12 classes which each class consists of 36 students. So, there were 432 students as the total of population. One of the classes (X - A) was given an instrument trial to assess the test's validity and reliability.

Table 3.1 Table of Population

Class	Total of Students
X - A	36
X - B	36
X - C	36
X - D	36
X - E	36
X - F	36
X - G	36
X - H	36
X - I	36
X - J	36
X - K	36
X - L	36
Total	432

Sample is population's subset that is selected according to predetermined criteria from a larger population. The researcher employed cluster not sampling

⁷⁵ Sugiyono. "Metode Penelitian Kuantitatif Kualitatif dan R&D." *Bandung: Alfabeta*, (2011): 62.

rather than random sample in this investigation. Out of all the classes, researcher selected four to gather the data. Thus, the sample size was 144 students.

Table 3.2 Table of Sample

Class	Total of Students
X - B	36
X - C	36
X - D	36
X - E	36
TOTAL	144

C. Research Instruments

The researcher applied two instrument's types for data collection, they are questionnaires and test. Questionnaires were given to students to measure their social media-used perception and self-efficacy. Then, speaking test was done to know their oral ability. The clearer explanation of the instrument can be seen in the following subtopics.

1. Questionnaires

A questionnaire is a tool used to gather data that consists of a list of written questions given to respondents and the compilation of their responses. The researcher collected data from the sample using the social media-used perception and self-efficacy questionnaires. Prior to administering the final questionnaire to the sample, the researcher conducted a questionnaire trial.

a. Questionnaire of Social Media-Used Perception

The first is questionnaire of social media-used perception. This questionnaire is used to collect the initial data of the study. The researcher

employed a closed-ended questionnaire. Therefore, all the students needed to do was check the column that was provided according to their feelings regarding the statement. The questionnaire was adapted from Emmanuel⁷⁶ to get data and information on the students' social media-used perception. The researcher made a modification on the numbers of questionnaire and the suitability of social media English contents which just focuses on YouTube, WhatsApp, Instagram, Facebook, and TikTok.

Four options were provided in the questionnaires based on the Likert Scale. It is used to measure someone's feelings, thoughts, and perceptions on a certain given topic. The following explanation was given for the questionnaire's indicators:⁷⁷

Table 3.3 The Score Indicators of Social Media-Used Perception

Questionnaire

Score Indicators	Positive
Strongly agree	4
Agree	3
Disagree	2
Strongly disagree	1

The questionnaire contained a total of 20 items. The questionnaire was evaluated using a Likert scale rating; *Strongly Agree (SA)*, *Agree (A)*,

⁷⁶ Emmanuel, A. O. (n.d.). "Effects Of Social Media on English Proficiency: A Case Study of A Selected Secondary School in Ogba, Ikeja L.G of Lagos." *Undergraduated Thesis. Silver Emerald Univeristy, Australia.*

⁷⁷ Arthur, H. "Testing for Language Teacher." *Cambridge: University Press* (2003): 135.

Disagree (D), and Strongly Disagree (SD). (The social media-used perception questionnaire can be seen in Appendix 1).

Table 3.4 The Blueprint of Social Media-Used Perception Questionnaire

Indicators	Numbers of Items
Social media and English communication skill	1,2,3,4,5
Social media language style and students' speaking skill	6,7,8,9,10
Type of social media and English ability	11,12,13,14,15
Social media and English competence and achievement	16,17,18,19,20

b. Questionnaire of Self-Efficacy

The second is self-efficacy questionnaire. This questionnaire is used to get the second data is needed for the study. It is also in a closed-ended questionnaire. Students only needed to indicate their feelings regarding the statement by checking the corresponding column. The questionnaire was adapted from Asarekeh and Dehghannezhad⁷⁸ to collect data and information on students' self-efficacy. The researcher made a modification on the suitability of self-efficacy items which focuses on students' speaking improvement.

Four options were provided in the questionnaires based on the Likert Scale. It is used to measure someone's feelings, thoughts, and perceptions

⁷⁸ Asarekeh, A. & Dehghannezhad, M. "Student Satisfaction with EFL Speaking Classes: Relating Speaking Self-Efficacy and Skills Achievement." *Issues in Educational Research* 25, no. 4 (2015): 345-363.

on a certain given topic. The following explanation was given for the questionnaire's indicators:⁷⁹

Table 3.5 The Score Indicators of Self-Efficacy Questionnaire

Score Indicators	Positive
Strongly agree	4
Agree	3
Disagree	2
Strongly disagree	1

The questionnaire contained a total of 27 items. The questionnaire was evaluated using a Likert scale rating; *Strongly Agree (SA)*, *Agree (A)*, *Disagree (D)*, and *Strongly Disagree (SD)*. (The self-efficacy questionnaire can be seen in Appendix 2).

Table 3.6 The Blueprint of Self-Efficacy Questionnaire

Indicators	Numbers of Items
Students' belief in overcoming difficulties	4, 9, 12, 13
Individual's strength or stability related to belief	1, 2, 3, 6, 7, 11, 15, 16, 18, 19, 20
Students' belief about their capability in specific situations	5, 8, 10, 14, 17, 21, 22, 23, 24, 25, 26, 27

⁷⁹ Arthur, H. "Testing for Language Teacher." *Cambridge: University Press* (2003): 135.

2. Test

Test is scheduled question or exercise that determines individual's or group's intelligence, knowledge, talent, or competence.⁸⁰ Students take a test to know how great their English speaking. For this study, the researcher used the speaking test to get data from the sample. Prior to conducting the actual test on the sample, the researcher did a test trial.

a. Speaking Test

The test was given to see how good students speak English. Students were given 3 pictures, then they chose one of them freely and describe it in 3 minutes. (The speaking test form can be seen in Appendix 3). The test focused on their pronunciation, grammar, vocabulary, and fluency. There were two raters who scored the test. In this scenario, rater 1 is the researcher, and rater 2 is an English teacher at SMAN 7 Kediri. The two raters followed David P. Harris speaking scoring rubric that was already adapted.⁸¹ (The speaking scoring rubric can be seen in Appendix 4).

D. Validity

Validity is the degree to which the researcher's particular conclusions are sound, correct, significant, and worthwhile. The researcher argues that validity is necessary for study since it is essential for assessing the precision of the data collection tool. To determine the Pearson Product Moment for social media-used perception questionnaire, self-efficacy questionnaire, and speaking test, the

⁸⁰ Arikunto, S. "*Prosedur Penelitian Suatu Pendekatan Praktik*." Jakarta: Rineka Cipta (2010): 94.

⁸¹ Harris, D. P. "Testing English as Second Language." *New York: Mc Grew Hill Book Company*, (1996): 101.

researcher uses IBM SPSS 26.0. If the r-result is greater than the r-table, the test is deemed to be valid. If the r-result is less than the r-table, the test is invalid. 32 students followed the try-out because 4 were absent. The r-table was 0.349.

First is the validity of social media-used perception questionnaire. The result showed that there were 20 valid questions. (The validity of social media-used perception questionnaire can be seen in Appendix 5).

Second is the validity of self-efficacy questionnaire. The result showed that there were 20 valid questions. (The validity of self-efficacy questionnaire can be seen in Appendix 6).

Third is the validity of speaking test. If the significance more than 0.05, it can be categorized as valid. The result showed that the value was 0.902. It can be concluded that the test was valid. (The validity of speaking test can be seen in Appendix 7).

E. Reliability

The degree to which scores remain consistent between instrument usages and across item sets for each individual is known as reliability. In other words, when the researcher administers the instrument multiple times at various times, the scores ought to be almost same. Credible data will be processed by a reliable tool, which can also be used to gather data. The researcher used IBM SPSS 26.0 to conduct a reliability test in order to ascertain the test's applicability. When r-obtained exceeds r-table, the test is deemed trustworthy.

Table 3.7 The Coefficient of Reliability

Coefficient Interval	Levels of Reliability
0.80 < 1.00	Very high reliability
0.60 < 0.80	High reliability
0.40 < 0.60	Fair reliability
0.20 < 0.40	Low reliability
0.00 < 0.20	Very low reliability

Alpha Cronbach Formula was used to determine the reliability of social media-used perception questionnaire, self-efficacy questionnaire, and speaking test. The results are explained below.

Table 3.8 The Reliability of Social Media-Used Perception Questionnaire

Reliability Statistics	
Cronbach's Alpha	N of Items
0.933	20

The criteria on reliability is reliable if the Coefficient Alpha is greater than 0.60. The result of the conversion to reliability level shows that the social media-used perception questionnaire was reliable with the coefficient 0.933.

Table 3.9 The Reliability of Self-Efficacy Questionnaire

Reliability Statistics	
Cronbach's Alpha	N of Items
0.847	27

The criteria on reliability is reliable if the Coefficient Alpha is greater than 0.60. The result of the conversion to reliability level shows that the self-efficacy questionnaire was reliable with the coefficient 0.847.

Table 3.10 The Interpretation of Kappa Statistics for Inter-Rater Reliability

Coefficient Interval	Levels of Agreement
$0.81 < 1.00$	Almost perfect agreement
$0.61 < 0.80$	Substantial agreement
$0.41 < 0.60$	Moderate agreement
$0.21 < 0.40$	Fair agreement
$0.00 < 0.20$	Poor agreement

Scoring speaking needs two or more raters. The raters must have inter-rater reliability. In this research, 2 raters were involved. To know the inter-rater reliability, Kappa Statistic for Inter-Rater Reliability was used. The result is presented below.

Table 3.11 The Reliability of Speaking Test

		Symmetric Measures			
		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Measure of Agreement	Kappa	0.069	0.079	0.941	0.347
N of Valid Cases		32			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Based on the table, Kappa Coefficient value was 0.069. It can be concluded that the speaking test was obviously reliable on substantial agreement level.

F. Data Collection

The data was collected by getting the students' time to complete two questionnaires and a test. The data collection needed several days. On the first day, the students were given social media-used perception questionnaire which consist of 20 items and last 45 minutes. On the second day, they were given self-efficacy questionnaire which consists of 27 items and lasts 60 minutes. On the third day they were given speaking test on describing picture. There were 3 pictures to be chosen by them, then they have to describe it in 3 minutes.

After all data had been collected, the researcher examined and tallied the results in Microsoft Excel. Then, he used SPSS 26.0 to assess the correlation of data collected.

G. Data Analysis

To decide how to interpret the data, the researcher performed a quantitative analysis after data collection. He calculated the mean of each variable's scoring components using Microsoft Excel to gain greater insight into each one. Then, he analysed using SPSS 26.0. The interpretation of the coefficient as follow⁸²:

Table 3.12 Table of Significant Standard Coefficient Correlation

Coefficient Correlation	Meaning of Interpretation
0.80-1.00	Very High Correlation
0.60-0.79	High Correlation
0.40-0.59	Enough Correlation
0.20-0.39	Low Correlation
0.00-0.19	Very Low Correlation

⁸² Sugiyono. "Metode Penelitian Kuantitatif Kualitatif dan R&D." *Bandung: Alfabeta*, (2011): 62.

The table describes the correlation from very high correlation to very low correlation. After measure the correlation using this formula, there is chart of coefficient correlation to know is high or low. The coefficient correlation between the variables might then be displayed using the value of r as follows:

A. Positive correlation occurs when both variables increase or decrease simultaneously. Strongly positive correlations were indicated by correlation coefficients of + 1.00.

B. Negative correlation indicates that the quantity of one variable falls as the other one rises. A high negative association was suggested by a correlation coefficient that was near to -1.00.

C. No correlation is indicating any correlation of two variables. A correlation coefficient of 0 indicates no correlation.

The significant hypothesis was ascertained using the following calculations based on the coefficient of correlation's value: $\text{Sig} < 0.05$, H_0 is rejected while H_a is accepted. It suggests that there is a correlation. Since $\text{Sig} > 0.05$, H_0 is accepted while H_a is rejected. It suggests that there is not any connection.