

CHAPTER III

RESEARCH METHOD

This chapter discusses about research methodology. It consists of research design, participant of study, instruments and data analysis. Here are the explanations of those each point of this research.

A. RESEARCH DESIGN

To success the goal, this research employs path analysis as reseach design. Path analysis brings about a correlation development broken down into several interpretations of the consequences. It is a variation of multiple regression analysis and is used to analyze a number of issues involved in causal anlysis.⁶⁰ In particular, it is able to examine situation in which there are several final dependent variables and those in which there are like a chains of influences.⁶¹ This technique is commonly called causal modeling. This naming is based on the premise that path analysis allows users to test propositions theoretical about the cause and effect relationship without manipulating the variables.⁶² It highlights that the researcher gives no treatment toward specific variables in the measurement. Base assumption of

⁶⁰ Frances K. Stage, Hasani C. Carter, and Amaury Nora, "Path Analysis: An Introduction and Analysis of a Decade of Research," *Journal of Educational Research* 98, no. 1 (2004): 5, <https://doi.org/10.3200/JOER.98.1.5-13>.

⁶¹ David L Streiner, "Finding Our Way : An Introduction to Path Analysis," *The Canadian Journal of Psychiatry* 50, no. 2 (2005): 215.

⁶² J. Sarwono, "Mengenal Path Analysis: Sejarah, Pengertian Dan Aplikasi," *Jurnal Ilmiah Manajemen Bisnis Ukrida* 11, no. 2 (2011): 285.

this model is several variables actually have very closed relation to one and others.

Despite its previous name of causal modelling, path analysis cannot be used to establish causality or even to determine whether a specific model is correct.⁶³ It can only determine whether the data are consistent with the model. However, it is extremely powerful for examining complex models and for comparing different models to determine which one best fits the data.

The researcher defines path analysis since this research seeks out the relation among examined variables and sees the contribution of endogen variables to exogen variable. The path model employed in this research is complex model which refers to the combination of correlated model, mediated model and regression model.

B. PARTICIPANTS OF THE STUDY

The population of this study is senior high school students of Kediri. The investigator decides to choose this population because they have passed junior high school and certainly they have undergone several various teaching learning process and experienced variative assignments. Here, there are 53 senior high schools in Kediri. They consist of 30 senior high school and *Madrasar Aliyyah* and 23 vocational schools.

However, the population is too huge to be examined, so the investigator takes sampling for the representative of the population. By selecting the narrow defined population, the investigator saves the time and

⁶³ Streiner, "Finding Our Way : An Introduction to Path Analysis," 215.

the money, also it can generalize the result.⁶⁴ The researcher employs cluster sampling and stratified random sampling. Cluster sampling means deviding the whole population into clusters or groups, such as company or geographical region.⁶⁵ For clucter sampling, the investigator takes kinds of senior high school both public or privat school. They are SMAN 2 Kediri, SMA Pawiyatan Dhaha Kediri, MAN 2 Kediri, MA Nurul `Ula Kediri, SMKN 2 Kediri, SMK Pawiyatan Dhaha Kediri. Another, stratified random sampling refers to devide the population into strata or subgroup and a random is taken from each subgroup.⁶⁶ For this sampling, the researcher takes 6 people every level. Thus the samples of this research are 108 students.

Nevertheless, the number of sampling is not merely defined without a guidlines. Gay and friend state that the sample should be able to represent and generalize the popouation. The number of the sampling depends on the type of research design.⁶⁷ Adequate sample size preferably is above 100 for path analysis.⁶⁸ Hence, this research defines 108 participants to represent the population.

⁶⁴ L. R. Gay, Geoffrey E. Mills, and Peter A. *Educational Research: Competencies For Analysis And Application* (USA: Pearson Education, 2012) p. 130.

⁶⁵ Hamed Taherdoost, "Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research," *SSRN Electronic Journal*, no. January 2016 (2018): 21, <https://doi.org/10.2139/ssrn.3205035>.

⁶⁶ Taherdoost, 21.

⁶⁷ L. R. Gay, Geoffrey E. Mills, and Peter A, 139.

⁶⁸ Sarwono, "Mengenal Path Analysis: Sejarah, Pengertian Dan Aplikasi," 285.

Table. 3.1.
The Data of Participants.

School	Class	Number of Students
SMAN 2 Kediri	X	6
	XI	6
	XII	6
SMA Pawiyatan Dhaha Kediri	X	6
	XI	6
	XII	6
MAN 2 Kediri	X	6
	XI	6
	XII	6
MA Nurul `Ula Kediri	X	6
	XI	6
	XII	6
SMKN 2 Kediri	X	6
	XI	6
	XII	6
SMK Pawiyatan Dhaha Kediri	X	6
	XI	6
	XII	6
Total		108

C. INSTRUMENTS

In this study, the researcher uses two kinds of instruments for collecting the data. They are speaking test and questionnaires. The speaking test is used to measure the learners speaking comprehension. While, three questionnaires are employed to measure learners' willingness to communicate, emotional intelligence, and metacognitive awareness. The further explanation is discussed below.

1. IELTS Speaking Test

The speaking test is held to measure learners' speaking skill. The students will be given a topic adopted from IELTS part 3 from <https://ieltsliz.com/ielts-speaking-part-3-coronavirus-health/>. Especially, the topic is about the current issue in the world which is Coronavirus. There are 6 questions that should be answered in maximally 5 minutes. Below is the detailed question of speaking test.

Table 3.2.
Speaking Question.

TOPIC: Health and Coronavirus.

1. Do you think healthy is important? Why?
 2. What difficulties did someone people face with social distancing and lockdown at the time of Corona virus outbreak?
 3. What did some people do to stay positive at that time?
 4. During the coronavirus crisis, some people did courageous action. Can you give an example of one from your country?
 5. How has your routine changed since the outbreak of COVID-19?
 6. Which change has had the most impact on your day-to-day life?
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The instrument to assesst speaking is rubric adopted from Brown. This rubric consists of 5 points. They are fluency, pronunciation, vocabulary, grammar, and details. Each point is composed from 5 scale which are 5 to 1. Thus, 5 is the highest score and 1 is the lowest.

2. Willingness to Communicate

In order to measure learners' willingness to communicate, WTC questionnaire is distributed to them. It is adopted from Valadi, Rezaee, and

Baharvant.⁶⁹ The questionnaire includes 25 items related to six models of Willingness to Communicate. They are communication behavior, behavioral intention, situated antecedents of communication, motivational propensities, affective and cognitive context, and the society and individual context. The questionnaire employs a Likert scale that is ranging from 4 strongly agree to 1 strongly disagree.

The questionnaire items are in English language. To make sure the questionnaire is valid and reliable to measure students' willingness to communicate, validity and reliability test are conducted. The questionnaire is tried out to 30 learners (one class) outside the sample.

Table 3.3.
Blue Print of Willingness to Communicate Questionnaire.

Models of WTC	Number of Item
Communication Behavior	11, 12, 20, 23
Behavioral Intention	14, 15, 16, 17,
Situated Antecedents Of Communication	3, 7, 24, 25
Motivational Propensities	2, 5, 18, 19, 21,
Affective And Cognitive Context	1, 7, 8, 9
Society And Individual Context	4, 6, 10, 13, 22

3. Emotional intelligence

The data of emotional intelligence is collected by using Emotional Intelligence Self-Assessment questionnaire adapted from the San Diego City College MESA Program from a model by Paul Mohapel. It includes 40 items divided into 4 main aspects which are, Emotional Awareness (10 items), Emotional Management (10 items), Social emotional management

⁶⁹ Amir V., Afahin R., & Parisa K. B. , “The Relationship between Language Learners’ Willingness to Communicate and Their Oral Language Proficiency with Regard to Gender Differences”, *International Journal of applied Linguistics & English Literature*, Vol. 4 No. 5, 2015, 153.

(10 items), and relationship management (10 management). Each question was designed based on a 4 points likert scale scoring from 1-4 (Never=1 to always=4)

To check whether the questionnaire is capable to measure the level of students' emotional intelligence, the researcher conducts validity and reliability test by trying it out. The researcher tries out the questionnaire to 30 students (one class) out of the respondent.

Tabel 3.4.
Blue Print of Emotional intelligence questionnaire.

Dimension of Emotinal Intelligence	Number of items
Emotional Awareness	1,2,3,4,5,6,7,8,9,10
Emotional Management	11,12,13,14,15,16,17,18,19,20
Social emotional management	21,22,23,24,25,26,27,28,29,30
Relationship management	31,32,33,34,35,36,37,38,39,40

4. Metacognitive Awareness

Researcher uses metacognitive speaking awareness questionnaire checklist as questionnaire. It is adopted from Majid Farahian from English Language Teaching Department of Islamic Azad University, Iran.⁷⁰ This questionnaire concentrates on writing and consists of 46 items divided into 3 dimensions which are Planning (13 items), monitoring (18 items), evaluating (15 items). The questionnaire employs Likert scale 4 (strongly agree) to 1 (strongly disagree).

Due to the focuse on writing, so the writer does addaptation in order to fit with speaking skill. The final questionnaire consists of 37 items

⁷⁰ Majid Farahian, "Developing and Validating a Metacognitive Speaking Questionnaire," (Ph. D. Thesis, Islamic Azad University), 140.

Planning (11 items), monitoring (15 items), evaluating (11 items). Bellow is the table showing about the items omitted and revision.

Tabel 3.5.
Omiting Items of Metacognitive Awareness Questionnaire

BEFORE	AFTER
MONITORING	
I know which strategy best serves the purpose I have in my mind.	I know the strategy used in every moment.
I set goals and sub-goals before speaking.	-
I have specific audience in my mind.	-
PLANNING	
I know what to do at each stage of speaking.	-
I know what coherent piece of speaking.	-
I can develop ideas creatively through using novel (new and different) sentences.	-
At every stage of speaking, I use my background knowledge to create the content.	-
EVALUATING	
I find myself resorting to fixed set of sentences I have in mind instead of creating sentences.	-
After I finish the speaking, I check whether the content fits the original plan.	-
If I do revision, I do it at both textual and the content level.	If I do revision, I do it at content level.
After I finish speaking, I edit the content of my paper.	-
If I do revision, (e.g., vocabulary, grammar, and spelling).	-

The questionnaire items are in English language. To make sure the questionnaire is valid and reliable to measure students' metacognitive awareness, validity and reliability test is conducted. The questionnaire is tried out to 30 learners outside the sample.

Table 3.6.
Metacognitive awareness questionnaires.

Dimension of metacognitive awareness	Number of items
Planning	1,2,3,4,5,6,7,8,9,10,11
Monitoring	12,13,14,15,16,17,18,19,20,21,22,23,24,25
Evaluating	26,27,28,29,30,31,32,33,34,35,36,37

D. DATA COLLECTION

The investigator uses several steps to gather the data. Belows are the steps.

1. Preparing the question for speaking which consist of 5 question related to coronavirus, questionnaire of willingness to communicate which consist of 25 items with four points of Likert-scale (4=strongly agree to 1=strongly disagree), questionnaire of emotional intelligence consisted of 40 items with four points of Likert-scale (4=strongly agree to 1=strongly disagree), and questionnaire of metacognitive awareness consisted of 46 items four points of Likert-scale (4=strongly agree to 1=strongly disagree).
2. Conducting speaking test. This test takes 5 minutes for each partisipant. There are 2 classes (60 students), so this test needs 5 hours. The test was scored in numerical score. The highes is 25 points and the lowest is 0.
3. Distributing willingness to communicate questionnaire. Due to the pandemic, the questionnaire is distributed online by employing google form.
4. Distributing emotional intelligence questionnaire. Due to the pandemic, the questionnaire is distributed online by employing google form.

5. Distributing metacognitive awareness. Due to the pandemic, the questionnaire is distributed online by employing google form.
6. Scoring and tabulating speaking comprehension, willingness to communicate questionnaire, emotional intelligence questionnaire, and metacognitive awareness questionnaire in *Ms. Excel* program.

E. DATA ANALYSIS

This study was conducted to examine four variables and those are speaking skill, willingness to communicate, emotional intelligence, and metacognitive awareness. Since this research figures the correlation and contribution out of the variables, it employs path analysis. The data analysis techniques of this quantitative approach uses statistical analysis by utilize Statistical Program for Social Science (SPSS) 25.0. There are several prerequisite tests which are normality test, linearity test, and linear regression.

The normality test will be analyzed using *Kolmogorov Smirnov*. While, linearity test is employed to analyze linearity. In linear regression contains information about correlation between independent and dependent variables. To determine the correlation between two variables, there are standards of coefficient correlation. The score correlation is around 0 to 1, whether positive or negative. If the score correlation > 1 , it means that there is wrong calculation. Then, if the score correlation is labeled negative, it shows that the correlation between two variables is negative. The interpretation of the coefficient correlation is presented in the table 3.9.

Table 3.6.
Coefficient Variable

No	Value	Degree
1	0,00 – 0,199	Very Weak
2	0,20 – 0,399	Weak
3	0,40 – 0,599	Sufficient
4	0,60 – 0,799	Strong
5	0,80 – 1,000	Very Strong

When the prerequisite tests are met, the resercher can go to the path analysiz. SPSS AMOS 25 is used to calculate the effect. Then to figure out the the significance of the influence, Z-sobel test is employed. After that, to identify the direct and indirect contribution among variable, the investigator uses Structural Equation Model (SEM).