

CHAPTER III

RESEARCH METODOLOGY

This chapter is intended to discuss related research method correlation between the habit of listening to English songs and student pronunciation ability by using research method, research setting, research population, and sample, Instrument, and data collection technique, research data validity instrument, data collection technique and data analysis technique.

A. Research Method

To understand the research above, the researcher uses quantitative research. Quantitative research method can be interpreted as research method used to research certain populations or samples, collecting data using research instruments, analyzing quantitative data, with the aim of testing predetermined hypotheses.¹ The researcher used this method because this research aims to determine the correlation between the habit of listening to English songs and student pronunciation ability in statistical approach. The researcher used the correlation design for this study. Correlation is a term used to denote the association or relationship between two (or more) quantitative variables.² The purpose of this study was to determine the significance of the correlation between two variables.

In this research, the researcher collected data by interviewing the English teacher and conducting research on students by observing using questionnaires and tests when the teacher listened to English songs in the class. The researcher conducted field observation to obtain the data on the problem in English pronunciation, especially in one of the eleventh grade of vocational school in Pati.

B. Research Setting

The researcher collected the data at one of vocational school in Pati. This study focuses on using the listening English song method to improve English pronunciation in the eleventh grade of vocational school in Pati. It is located at one of vocational school in Pati. It has several educational schools such as PIAUD, MI, MTs, MA, SMK,

¹ Sugiyono. *Metode Penelitian Pendidikan Pendekatan Kualitatif, Kuantitatif dan R&D*. (Bandung: Alfabeta, 2015). 8

²N. J. Gogtay and U. M. Thatte, "Principles of Correlation Analysis," *Journal of Association of Physicians of India* 65, no. MARCH (2017): 78–81, <https://pubmed.ncbi.nlm.nih.gov/28462548/>.

Islamic boarding school, and some school businesses such as confection and bakery. Before starting the research, the researcher accomplished the required procedures, such as acquiring a permission letter from the institution. This research aims to increase students' enthusiasm for learning English and learn more about how to teach efficiently in English learning by English teachers in the eleventh grade of vocational school in Pati.

C. Research Population or Sample

1. Population

The population is all individuals or units of interest: typically, there is no available data for almost every individual in a population.³ It can be concluded that the population is the whole of the problem variables to be studied. This research used saturated sampling technique. Saturated sampling technique is sampling technique that can be apply when all members of the population are used as samples this is often done when the population is relatively small, less than 30 people.⁴ The population of study in this research for students' in eleventh grade, where there are several majors such as XI Fashion, XI Computer and Network Engineering (TJKT), XI Software and Game Programming (PPLG) at vocational school in Pati.

2. Sample

The sample is part of the individuals within the population, and data for each sample member is usually available.⁵ The sample is part of the population, which is usually only taken a little from the population. In this research, the researcher chooses a sample from student XI Fashion of vocational school in Pati.

D. Design and Definition of Operational Variable

There were two variables in this research, namely independent variable, and dependent variable, those are:

1. Independent Variable

³Bret Hanlon and Bret Larget. Samples And Populations. The Scientific Literature. Statistics .*Wisconsin UniversityJournal* 8, no. 9 (2011): 6, <https://pages.stat.wisc.edu/~st571-1/03-samples-4.pdf>.

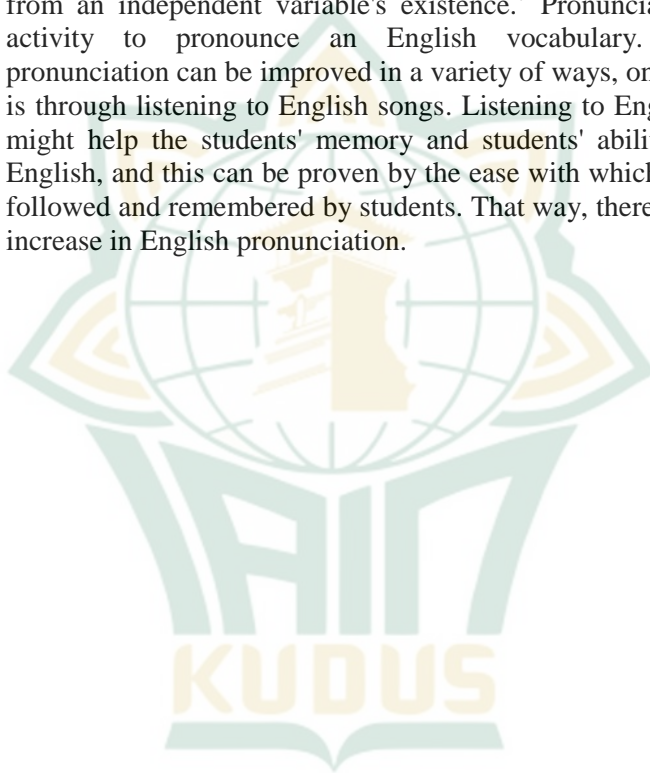
⁴ Sugiyono. *Metode Penelitian Pendidikan Pendekatan Kualitatif, Kuantitatif dab R&D*. (Bandung: Alfabeta, 2015). 39

⁵Bret Hanlon and Bret Larget. Samples And Populations. The Scientific Literature. Statistics .*Wisconsin UniversityJournal* 8, no. 9 (2011): 7, <https://pages.stat.wisc.edu/~st571-1/03-samples-4.pdf>.

Independent variables are variables that influence or cause changes in the dependent variable.⁶ The habit of listening to English songs is one type of activity that is effective for learning English. This activity can be done by applying the method of listening to English songs or inviting students to listen to English songs between lessons.

2. Dependent Variable

The dependent variable is a variable that is influenced or results from an independent variable's existence.⁷ Pronunciation is an activity to pronounce an English vocabulary. Students' pronunciation can be improved in a variety of ways, one of which is through listening to English songs. Listening to English songs might help the students' memory and students' ability to learn English, and this can be proven by the ease with which songs are followed and remembered by students. That way, there will be an increase in English pronunciation.



⁶Sugiyono. *Metode Penelitian Pendidikan Pendekatan Kualitatif, Kuantitatif dan R&D*. (Bandung: Alfabeta, 2015). 39

⁷Sugiyono. *Metode Penelitian Pendidikan Pendekatan Kualitatif, Kuantitatif dan R&D*. (Bandung: Alfabeta, 2015). 39

E. Instrument and Data Collection Technique

Method of data collection is a technique or strategy used by researcher to obtain materials, facts, and information to collect data needed in research.⁸ In this research, the researcher uses questionnaires and tests as technique data collection for research. The researcher examined the correlation of continuous Variable X and Variable Y. The two variables were the habit of listening to students' English songs (Variable X) and students' pronunciation ability (Variable Y). The tools utilized for collecting data were:

1. Indicators of Listening Habit

According to Murphey cited by Yi-Chun Chen, there are three indicators of listening Habit to English Song:

- a. Repetitive Action, the students' are expect to often listening to English song and repeat these activity.
- b. Attention, the students' are expected to able pay attention English song.
- c. Get the meaning, the students' are expected to be able to know the meaning of English song.⁹

Table 3.1
The categories of research instrument of habit listening to English song

No.	Categories	Item numbers		Total
		Positive	Negative	
1.	Repetitive Action	1,2,3,7	4,5,6	7
2.	Attention	8, 9,11,13	10,12	6
3.	Getting and Meaning	14,15,18,20	16,17,19	7
Total				20

2. Questionnaire

The questionnaire is the main means of collecting primary quantitative data. The questionnaire enables quantitative data to be collected in according to standardization, so that the data are

⁸ Sudaryono. *Metode penelitian Pendidikan*. 2016. (Kencana: Jakarta). 75

⁹ Yi-Chun Chen and Pi-Chun Chen, “ The Effect of English Popular Songs on Learning Motivation and Learning Performance”, *WHAMPOA- An Interdisciplinary Journal* 56 (2009) 13-28,<https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=95b635306d35b4770eeefd6c81>

internally consistent and coherent for analysis.¹⁰ Questionnaires are the most effective tool to obtain personal information, such as attitudes and opinions that are in accordance with the conditions experienced by the respondent.

The researcher shared a questionnaire with students consisting of 20 questions that contained some categories. This instrument has been validated by Mr. Muh. Misbahul Munir A.P and Mrs. Taranindya Zulhi Amalia, M.Pd. This validation aims to provide information, input and evaluate the instrument based on criteria aspects in learning. Instrument validation also aims to test the feasibility of whether the instrument is suitable for testing or not in collecting research data.

The researcher used the Indonesian language to make it easier for students to understand the question. The student can answer the question provided by the researcher and the checklist in the column that appropriate for their opinion and situation. In this study, the researcher used a closed questionnaire, where the researcher gave questions to students' and students' were given the opportunity to choose the answer provided.¹¹ In addition to facilitating the student's quick response to questions, a closed questionnaire would simplify data processing for the researcher. There are five options, which are based on the type of Likert scale, it is often to use of rating scale in research that employs a questionnaire.

The Likert scale is a measurement scale developed by Likert. The Likert scale has four or more questions that are combined to form a composite score that represents individual traits and includes knowledge, attitude, and behavior.¹² The researcher used the Likert scale to measure the students' answer. The use of Likert scale on questionnaires can minimize errors in responses from respondents, which can make the research inaccurate. The five types of Likert scale can be seen as follows:

¹⁰S Roopa and MS Rani. Questionnaire Designing for a Survey. *The Journal of Indian Orthodontic Society*. Vol. 46, no. 4, December (2012): 273, <https://www.semanticscholar.org/paper/Questionnaire-Designing-for-a-Survey-Roopa-Rani>.

¹¹Isti Pujihastuti. Prinsip Penulisan Kuisisioner Penelitian. *Jurnal Agribisnis dan Pengembangan Wilayah*. Vol. 2, No. 1 (2010): 43–56, <https://jurnal.unismabekasi.ac.id>.

¹²Tibertius Nempung, Timor Setiyaningsih, and Nur Syamsiah, "Otomatisasi Metode Penelitian Skala Likert Berbasis Web," no. November (2015): 1–8, <https://jurnal.umj.ac.id>.

Table 3.2
The Table of Questionnaire

No.	Option	Positive	Negative
1	Sangat setuju	5	1
2	Setuju	4	2
3	Netral	3	3
4	Tidak setuju	2	4
5	Sangat tidak setuju	1	5

The habit listening student's score, categories, and rating scale for an English song are displayed in the table. The rating scale of this research consists of 5 points, that is *Sangat Setuju* (strongly agree): 5, *Setuju* (agree): 4, *Netral* (Neutral): 3, *Tidak Setuju* (disagree): 2, *Sangat Tidak Setuju* (strongly disagree): 1. Where in the likert scale points of 5 is the highest score and point of 1 is the lowest score. With the calculation of these score, precise and accurate research data will be obtained.

3. Test

The test used as an assessment tool in education has an important role in measuring the achievement of learning outcomes for students'. Especially cognitive learning outcomes related to mastery of understanding the material that has been conveyed by the teacher.¹³ Before the researcher used to material, the questions are first tested for validity with both expert validity. This instrument has been validated by two expert lecturers to assess the suitability of the instrument. In this study, the researcher attached report texts to students and then students can read the text, to fulfil the quantitative criteria; the researcher also attached three questions and the researcher focus to be tested for validity to prove whether the test is feasible or not to be tested with predetermined indicators such as:

Table 3.3
Table Rating Score Pronunciation Ability

No	Aspect	Score	Comment
1.	Liking	5	Almost Complete
		4	There is a mistake but do not disturb the

¹³Nurjanah and Noni Marlianingsih. Analisis Butir Soal Pilihan Ganda Dari Aspek Kebahasaan. *Jurnal Ilmiah Kependidikan*. Vol. 2, No. 1 (2017): 69–78, <http://dx.doi.org/10.30998/fjik.v2i1.377>.

			meaning
		3	There are some mistake and disturb the meaning
		2	Many mistake with the result that hard understanding
		1	To much mistakes until the word harder understanding
2.	Intonation	5	Almost Complete
		4	There is a mistake but do not disturb the meaning
		3	There are some mistake and disturb the meaning
		2	Many mistake with the result that hard understanding
		1	To much mistakes until the word harder understanding
3.	Stress	5	Almost Complete
		4	There is a mistake but do not disturb the meaning
		3	There are some mistake and disturb the meaning
		2	Many mistake with the result that hard understanding
		1	To much mistakes until the word harder understanding

Criteria of the score:

5: Excelent

4: Verry good

3: Good

2: Average

1: Poor¹⁴

In this research, if all students answered correctly, they would get a score of 100. With this test, the researcher hopes to find out how much the student can understand each word in descriptive text and how the student pronounces it.

The correct answer X 4

¹⁴ H. Douglas Brown, *Language Assessment Principle and Classroom Practice*. (New York: University Press), p 172-173

F. Research Data Validity Instrument

1. Instrument of Validity

The validity test is determined by the meaningful and appropriate interpretation of the data obtained from the measuring instrument as a result of the analysis.¹⁵ Validity test is used to measure data to determine whether or not a questionnaire is valid. By using a validity instrument, it's hoped that the research results will be valid. Construct validity and content validity are the measures the researcher will use to determine how good the test is:

a) Construct Validity

Construct validity is a validity test that uses the opinion or experts to allow an expert to make a decision.¹⁶ In this case, after the instrument to be measured is constructed with a particular theory, the next step is to consult with the judgment experts or people who have abilities in the field to be tested to decide whether the test is without improvement, there are improvements, or completely changed.

b) Content Validity

Content validity is the comparison between the contents of the instrument with the contents of the plan that has been set.¹⁷

The construct validity and content validity can be assisted by using a grid of instruments or indicators that can be used as benchmarks for each question item. After consulting with the judgment experts, the next step is to try it out on those studied.

Based on the theory above, in this test the researcher gave questions to students' to choose the answers according to the conditions of students in learning, that is, the habit of listening to an English songs to determine whether an instrument was valid. The formula is a follow:

$$r_{xy} = \frac{N \sum xy (\sum x)(\sum y)}{\sqrt{(N \sum x^2 - (\sum x)^2)(N \sum y^2 - (\sum y)^2)}}$$

¹⁵Lutfi Surucu and Ahmet Maslakci. Validity and Reliability in Quantitative Research. *Business & Management Studies: An International Journal* 8, no. 3 (2020): 2694–2726, <https://doi.org/10.15295/bmij.v8i3.1540>.

¹⁶ Sugiyono. *Metode Penelitian Pendidikan Pendekatan Kualitatif, Kuantitatif dan R&D*. (Bandung: Alfabeta, 2015). 177

¹⁷ Sugiyono. *Metode Penelitian Pendidikan Pendekatan Kualitatif, Kuantitatif dan R&D*. (Bandung: Alfabeta, 2015). 182

Information:

r_{xy} : Validity coefficient

N : The number of student

x : The efficiency of using song media for student

y : The score of pronunciation ability for student

The characteristics of the validation test are successful if $r_{Count} > r_{Table}$ with a difference 0,05 then the instrument is declared successful and suitable for use in data collection and if $r_{Count} < r_{Table}$ the instrument is declared invalid and not suitable for use in data collection.

2. The reliability of the instrument

Reliability refers to the stability of the measuring instrument used and its consistency over time.¹⁸ In other words, reliability is measuring the instrument to get the same results even though it is applied at different times. Then the result of the two tests is correlated to see the consistency of the result. This matter can still change because it is influenced by the condition of the object under study, and the ability of people to collect data, therefore, the researcher must be able to control the object and collect the data under study to get valid and reliable results.¹⁹

In this research, the researcher used *Test-retest (stability)* to test the instrument's reliability.²⁰ The research instrument was tested by trying the instrument on respondents with the same instrument, the same respondent, and at different times. When the results of testing the instruments are coefficient and significant, then the instrument can be said to be variable and ready to be tasted on the students. The higher of the correlation level on the two tests, the better measurement scale reliability. In this research, the reliability of instrument the researcher used alpha coefficient formula. The alpha coefficient formula as follow:

$$r = \left(\frac{k}{k-1} \right) \left(\sum \frac{\sigma_i^2}{\sigma^2} \right)$$

¹⁸Lutfi Surucu and Ahmet Maslakci. Validity and Reliability in Quantitative Research. *Business & Management Studies: An International Journal* 8, no. 3 (2020): 2707, <https://doi.org/10.15295/bmij.v8i3.1540>.

¹⁹ Sugiyono. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. (Bandung: Alfabeta,) 2016. 122

²⁰Sugiyono. *Metode Penelitian Pendidikan Pendekatan Kualitatif, Kuantitatif dan R&D*. (Bandung: Alfabeta,) 2015. 184

Information

R : reliability instrument

k : the number of question

$\sum \sigma_i^2$: the sum variance for each item

σ^2 : variance total

Table 3.4
Reliability Alpha Coefficient

No.	Cronbach's alpha	Internal reliability
1	0,9<	Excellence
2	0,8 <0,9	Good
3	0,7 < 0,8	Acceptable
4	0,6 < 0,7	Questionable
5	0,5 < 0,6	Poor
6	>0,5	Unacceptable

G. Data Analysis Technique

After collecting data through questionnaires and tests of blank text, the step is to analyze the data to find out whether there is a correlation between student's habit of listening to English song and their pronunciation ability.

The word data is defined as things known, or assumed facts and figures, from which conclusions can be inferred.²¹ In other words, data is raw material that must be processed into information or knowledge with several steps to create information that can be concluded.

According to Spradly Analysis of any kind involve a way of thinking, it refers to the systematic examination of something to determine its parts, the relations among parts and the relationship to the whole. The analysis is a search for patterns.²² In data analysis there are several parts that must be considered, such as the relationship between parts and the relationship with the whole research section to get conclusions from the data that has been collected.



²¹ John, K. Tylor. Cheryl, Cihon. *Statistical Technique for Data Analysis Second Edition*. 2004. (New York: A CRC Press Company). 01

²²Mury Yusuf. *Metode penelitian Kuantitatif, Kualitatif & Penelitian Gabungan*. 2014. (Jakarta: Kencana). 401

To analysis data, the researcher used some technique of analysis data, as follow:

1. Introduction

In this study, the researcher used two methods to collect data, it's a questionnaire for variable X (statement for the habit of listening to English song) and variable Y (statement for student pronunciation ability). The questionnaire and test were distributed to the eleventh grade students' in the fashion program as respondents to answer the question given by the researcher. The collected data is then tabulated based on variables, this is done to simplify the process of data analysis.

After data collection, the researcher continued data analysis by using the analysis requirements test, namely the normality test, linearity test, and hypothesis testing, as the final step to finding out whether H_0 was accepted or rejected.²³

2. Interpreting Data

In quantitative social science, an analyst builds a first order text by gathering data and a second order text by interpreting the data as a statistical conclusion.²⁴ The meaning of the sentence above is that interpreting data is the process of reviewing data to produce relevant conclusion using data analysis method.

The data is processed and analyzed based on the size of the mean, median, mode and standard deviation. In this study, the researcher used SPSS to obtain data analyzed. The researcher used the formula below according by Kroyan to categorization and qualification of the student listening to English song and student pronunciation ability that is:²⁵

$M + 1.5 (SD) =$ Very high

$M + 0.5 (SD) =$ High

$M - 0.5 (SD) =$ Medium

$M - 1.5 (SD) =$ Low

3. Prerequisite test

a. Normality test

²³Dersy Taneo. *Journal Didache of Christian Education*, "Pengaruh Pembelajaran E-Learning Terhadap Efektifitas Guru Mata Pelajaran Di SMTK Kota Kupang" 1, no. 2 (n.d.): 90–98, <https://ejournal.staknkupang.ac.id/ojs/index>.

²⁴David Byrne. 2002. *Interpreting Quantitative Data*. (London: SAGE Publication). 04

²⁵Koyan, I .W (2012). *Statistik Pendidikan Teknis Analisis Data Kuantitatif*. (Singaraja: Universitas pendidikan Ganesha Press). 25

The normality test is used to prove that the sample comes from a normally distributed population or a population that has a normal distribution.²⁶ If the data tested is declared normal, then the analysis used is parametric statistic.

To test the normality of data, the researcher used the Kolmogorov Smirnov (KS-Z) formula in SPSS 25 for windows. If the significance is below 0,05, there is a significant difference, and if the significance is above 0,05, there is not a significance difference.

$p < 0,05 \rightarrow$ there is a significant difference,
 $p \geq 0,05 \rightarrow$ there is not a significance difference.

b. Linearitytest

The linearity test is used for determine whether the relationship between the two variables lies in a straight line or not.²⁷

There are several steps to get the result of the decision in the linear analysis test:

1. The variable is accepted if the score is significant deviation linear $< 0,05$.
2. The variable is rejected if the score is significant deviation linear $> 0,00$.

c. Hypothesis testing

After carrying out the requirements test, the researcher conducts hypothesis testing to make a decision based data on analysis, is there significant between variable X and variable Y. The researcher used *Associative Hypothesis* and to test the results of the data using the formula of Pearson Correlation Product Moment through SPSS:

$$r_{xy} = \frac{N \sum xy (\sum x)(\sum y)}{\sqrt{(N \sum x^2 - (\sum x)^2)(N \sum y^2 - (\sum y)^2)}}$$

Information:

r_{xy} : Validity coefficient

N : The number of student

x : The efficiency of using song media for student

²⁶Wayan Widana and Putu Lia Muliani, *Uji Persyaratan Analisis, Analisis Standar Pelayanan Minimal Pada Instalasi Rawat Jalan Di RSUD Kota Semarang*, 2020. 01

²⁷Wayan Widana and Putu Lia Muliani. 2020, *Uji Persyaratan Analisis, Analisis Standar Pelayanan Minimal Pada Instalasi Rawat Jalan Di RSUD Kota Semarang*, 2020. (Lumajang, Jawa Timur: Klik Media). 47

y : The score of pronunciation ability for student

Based on the results of the correlation test on the data above, if a significance score of $0,00 < 0,05$ is found, it can be concluded that H_0 is rejected and H_a is accepted. Its' means that there is a significant between the habit of listening to English song and students' pronunciation ability. But, if a significant score of $0,00 > 0,05$ is found, it can be conclude that H_0 is accepted and H_a is rejected. Its' mean that there was no significant effect between the habit of listening to English song and students' pronunciation ability.

H. Research Ethical Consideration

Research ethics as a branch of applied ethics has well established rules and guidelines that define their conduct. Research ethics is important for research and requires that the researcher should protect the dignity of their subject and publish information.²⁸

According Denzin and Lincoln the cornerstone of ethical research is 'informed consent'.²⁹ The researcher must inform the student about what to ask students, how the data will be used and what the consequences will be in the field research. The participant must give their consent to take part in the research and the researcher provides understanding to students in accessing information activities and have the right to withdraw from the activity.

According to Resnick ethical consideration are so crucial in research due to the following³⁰:

- a) Ethical principles forbid the fabrication or falsifying of statistic and support instead the pursuit of knowledge and fact which is the indispensable aim of the research.

²⁸Stephen Ifedha Akaranga and Bretta Kavutha Makau. Ethical Consideration and Their Application to a Research. *Journal of Educational Policy and Entrepreneurial Research*. Vol. 3, No. 12. (2016): 1–9, https://www.academia.edu/62920788/Ethical_considerations_and_their_applications_to_research_a_case_of_the_University_of_Nairobi.

²⁹Jenny Fleming and Karsten E. Zegwaard. Methodologies, Methods and Ethical Considerations for Conducting Research in Work-Integrated Learning. *International Journal of Work-Integrated Learning*. Vol. 19, No. 3 (2018): 205–13, https://www.ijwil.org/files/IJWIL_19_3_205_213.pdf.

³⁰Dinbandhu. Himanshi Priya. and Pravin Jadhav. Consideration of Ethical Norms and Practices in Research. *JTA Multidisciplinary International Conference* 2020. Vol. 40, No. 10 (2020): 1510–15, https://www.researchgate.net/publication/343295406_Consideration_of_Ethical_Norms_and_Practices_in_Research.

- b) Ethical behavior is essential for collaborative work since it rekindles a sense of trust, responsibility, and respect among researchers and scientists. This is matters concerned with co-authorship, data sharing, copyright rules, privacy, and plentiful strange issues.
- c) Ethical standards safeguard that researchers or scholars can be held answerable to society.
- d) Ethical standards aids in bringing social benefits for researcher. Would like to finance the research work if they find noteworthy excellence and truthfulness in research.
- e) Research norm also encourage and bring other noteworthy social qualities into reality. Human right, social duty, creature welfare, wellbeing, security, and so forth are few of them. Any ethical gap in research can potentially damage for ecosystem society.

From the statement above, it can be concluded that in conducting research, the researcher must consider the code of ethic of research to carry out their duties. Therefore, the research though carried out does not have a risk that can harm or endanger the respondents, but the researcher need to consider socio-ethical aspects and uphold human dignity. So that all research has research ethics.