

CHAPTER III

RESEARCH METHODOLOGY

A. Method of Research

This was a quantitative study using a non-experimental design. The variables are independent factors (extrovert and introvert students) and dependent variables (students' speaking performance). The study's aim is to determine the differences in speaking performance between two groups of students: introverts and extroverts. The design of this research is a causal-comparative design based on the purpose stated above. L. R Gay, Geoffrey E. Mills, Peter W. Airasian states that “In causal-comparative research, the researcher attempts to determine the cause or reason, for existing differences in the behavior or status of groups or individuals.”¹

Extrovert and introvert students have the same chance to learn English at the same time and in the same context. Furthermore, both extroverts and introverts may be compared on the same skill: speaking. The difference in learners' speaking performance is caused by the extrovert and introvert personality types. The following is a comparison of two variables:

$$\boxed{X_{1y}} : \boxed{X_{2y}}$$

¹ L. R Gay, Geoffrey E. Mills, and Peter W. Airasian. *Educational Research Competences for Analysis and Applications Tent Edition*, (London: Pearson, 2012), 228.

Note: X_{1y} : Speaking performance of extrovert students

X_{2y} : Speaking performance of introvert students

B. Population and Sample of the Research

1. The Population of the Research

Creswell states that “A population is a group of individual who have the same characteristic.”² The population of this research was ninth grade students of Integrated Junior High School Al-Husein.

Table 3.1

The Population of the research

No.	Class	Number of Students
1.	IX A	25
2.	IX B	25
Total		50

2. The Sample of the Research

The population above is enough to be taken as a sample. Arikunto states that “if the population is less than 100 person, the sample are all, but if the population is more than 100 person, the sample can be taken in the range of 10-15% or 20-25% or more than

² John W. Creswell. *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research 4th edition*, (New York: Pearson Education, Inc, 2012), 142.

that.”³ Based on this idea, the researcher took 100% of the population who focus on ninth grade students where 50 students are taught by the same teacher. Representing the sample, the researcher used Multistage Cluster Sampling. Creswell states “in multistage cluster sampling, the researcher chooses a sample in two or more stages because either the researchers cannot easily identify the population or the population is extremely large”⁴

In the first stage, the researcher used Cluster Random Sampling. As states by Gay “cluster sampling randomly select the groups, not individuals.”⁵ After deciding on the class as the sample for this study, the researcher classified the students as extroverts or introverts using the Eysenck Personality Inventory, which was covered in the previous chapter.

C. The technique of collecting data

When doing analysis, the most significant aspect is collecting data technique. Without collection data, the researcher cannot process the data and cannot begin the study until they have passed this stage.

³ Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktik*, (Jakarta: Rineka Cipta, 2010), 134.

⁴ John W. Creswell. *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research 4th edition*, (New York: Pearson Education Inc, 2012), 145.

⁵ L. R Gay, Geoffrey E. Mills, and Peter W. Airasian. *Educational Research Competences for Analysis and Applications* (London: Pearson, 2012), 135.

The writer used an oral examination to gather data for this study, but before doing so, the researcher used a questionnaire to determine the students' personalities.

1. Questionnaire

The researcher used a questionnaire to determine the students' personalities (extrovert and introvert). Cohen states “that questionnaire is widely used and useful instrument for collecting survey information, providing structured, often numeric data, being able to be administered without the presence of the researcher, and often being comparatively straightforward to analyze.”⁶ The aim of the questionnaire is to determine the personality profile of the students.

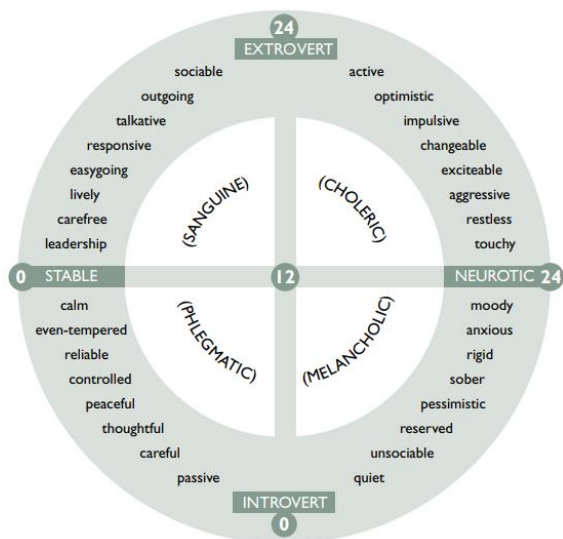
The questionnaire consists of 24 questions taken from extrovert and introvert measures, as well as questions modified from the Eysenck Personality Inventory (EPI). Based on the scale below, “the questionnaire score classifies the student's personality type by Eysenck:”⁷

Table 3.2

Range of Eysenck Personality Inventory (EPI)

⁶ Louis Cohen, Lawrence Manion, Keith Morrison, *Research Method in Education*, (London & New York: Routledge, 2007), 317.

⁷ Hans Eysenck, *Eysenck Personality Inventory*, 2004



Here are some questions regarding the way you behave, feel and act.

After each question is a space for answering YES or NO.

There are no right or wrong answers, and this isn't a test of intelligence or ability, but simply a measure of the way you behave.

Table 3.3

Table Indicators of (EPI)

Indicators	Statement Number
Active, assertive/Passive, sober	1, 12, 16, 18
Sociable/reserved	7, 8, 9, 11, 20
Passionate/restrained	3, 4, 14, 15, 21
Gregarious/aloof	5, 6, 17, 22, 23

Talkative/quiet	2, 10, 13, 19, 24
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Table 3.4

QUESTIONNAIRE

(*Angket*)

Instruction (*Petunjuk*):

- This questionnaire is written for collecting data and research purpose only.**
(*Angket ini hanya bertujuan untuk mengumpulkan data penelitian ilmiah*)
- This questionnaire does not influence to your score.**
(*Angket ini tidak mempengaruhi status nilai anda*)
- You are required to give circle (O) for the correct answer based on yourself.**
(*Berikan tanda bulat (o) pada jawaban yang menurut anda sesuai dengan pridabi anda*)
- Thank you for your participation.**
(*Terima kasih atas partisipasi anda*).

No.	Questions (<i>Pertanyaan</i>)	Yes (<i>Ya</i>)	No (<i>Tidak</i>)
1.	Do you often long for excitement? (<i>Apakah anda sering merindukan kegembiraan?</i>)		
2.	Are you usually carefree? (<i>Apakah anda biasanya riang?</i>)		
3.	Do you stop and think things over before doing anything? (<i>Apakah anda berhenti dan memikirkan sesuatu sebelum melakukan sesuatu?</i>)		
4.	Do you generally do and say things quickly without stopping to think?		

	<i>(Apakah anda biasanya melakukan dan mengatakan sesuatu dengan cepat tanpa berhenti untuk berpikir?)</i>		
5.	Would you do almost anything for a dare? <i>(Apakah anda akan melakukan apa saja untuk berani?)</i>		
6.	Do you often do things on the spur of the moment? <i>(Apakah anda sering melakukan sesuatu secara mendadak?)</i>		
7.	Generally do you prefer reading to meeting people? <i>(Secara umum, apakah anda lebih suka membaca daripada bertemu orang?)</i>		
8.	Do you like going out a lot? <i>(Apakah anda suka keluar/pergi?)</i>		
9.	Do you prefer to have few but special friends? <i>(Apakah anda lebih suka memiliki sedikit teman tapi istimewa?)</i>		
10.	When people shout at you do you shout back? <i>(Ketika orang-orang meneriaki anda, apakah anda balas berteriak?)</i>		
11.	Can you usually let yourself go and enjoy yourself a lot at a lively party? <i>(Biasakah anda biasanya membiarkan diri anda pergi dan menikmati diri sendiri di pesta yang meriah?)</i>		
12.	Do other people think of you as being very lively? <i>(Apakah orang lain menganggap anda sangat bersemangat?)</i>		
13.	Are you mostly quiet when you are with other people? <i>(Apakah anda sebagian besar diam ketika bersama orang lain?)</i>		

14.	<p>If there is something you want to know about, would you rather look it up in a book than talk to someone about it? <i>(Jika ada sesuatu yang ingin anda ketahui, apakah anda lebih suka mencarinya di buku daripada membicarakannya dengan seseorang?)</i></p>		
15.	<p>Do you like the kind of work that you need to pay close attention to? <i>(Apakah anda suka jenis pekerjaan yang perlu anda perhatikan baik-baik?)</i></p>		
16.	<p>Do you hate being with a crowd who play jokes on one another? <i>(Apakah anda benci bersama orang banyak yang saling bercanda?)</i></p>		
17.	<p>Do you like doing things in which you have to act quickly? <i>(Apakah anda suka melakukan hal-hal dimana anda harus bertindak cepat?)</i></p>		
18.	<p>Are you slow and unhurried in the way you move? <i>(Apakah anda lambat dan tidak tergesa-gesa dalam cara anda bergerak?)</i></p>		
19.	<p>Do you like talking to people so much that you never miss a chance of talking to a stranger? <i>(Apakah anda suka berbicara dengan banyak orang sehingga anda tidak pernah melewatkan kesempatan untuk berbicara dengan orang asing?)</i></p>		
20.	<p>Would you be very unhappy if you could not see lots of people most of the time? <i>(Apakah anda akan sangat tidak senang jika anda tidak dapat melihat banyak orang sepanjang waktu?)</i></p>		
21.	<p>Would you say that you were fairly self-confident?</p>		

	<i>(Apakah anda akan mengatakan bahwa anda cukup percaya diri?)</i>		
22.	Do you find it hard to really enjoy yourself at a lively party? <i>(Apakah anda merasa sulit untuk benar-benar menikmati diri sendiri di pesta yang meriah?)</i>		
23.	Can you easily get some life into a dull party? <i>(Bisakah kamu dengan mudah mendapatkan kesenangan di pesta yang membosankan?)</i>		
24.	Do you like playing pranks or others? <i>(Apakah anda suka mengerjai orang lain?)</i>		

2. Test

According to Cohen et Al, "Test is subject to items analysis."⁸

The evaluated point will quantify and assess the indicator of the test that has been established in the organizational concept of speaking performance.

Before conducting the test, the researcher performed several steps. The researcher discussed the information connected to the speech, such as the function, element, and forms, applied in the text and the text structure, during the first meeting. The researcher also requested the students to create their own speech text, with the free

⁸ Louis Cohen, Lawrence Manion, Keith Morrison, *Research Method in Education*, (London & New York: Routledge, 2007), 421.

theme having connected to their imagination. The researcher requested the students to give their soul in the speech text regarding their past experience or imagination during the second meeting. To conduct this study the researcher needs help for the teacher to assessing the students' speaking performance. To easier teacher will be assessing by, "using a scoring rubric proposed by 2013 curriculum.

Table 3.5

Rubric K13 of Speaking Performance

Aspects	Weight	Criteria			
		1	2	3	4
Fluency	2	Speaking with many pauses	Speaking too slowly	Speaking generally at normal speed	Speaking fluently
Pronunciation	2	Speaking words incomprehensibly	Speaking with incorrect pronunciation but still	Speaking with several incorrect pronunciation	Speaking with correct pronunciation

			understandable		
Accuracy	2	The serious errors present in speech makes the message difficult to understand	The errors present in speech would frequently create confusion	The speech is still understood although it consist of many errors	The errors present in speech are less so that the message would be easily
Clarity	2	Often mumbles or cannot be understood, more than one mispronounced words	Speaks clearly and distinctly most of the time, no more than one mispronounced	Speaks clearly and distinctly nearly all the time, no more than one mispronounced	Speaks clearly and distinctly all the time, no more than one mispronounced
Performance Skill	2	Speaking in volume which is almost	Mumbling and less	Speaking in soft voice, but can be	Speaking clearly and loudly and

		inaudible, and not communicative	communicati ve	understood and communicat ive enough	communicat ive
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The formula for calculating student grades, as follows:

Maximum score= 100

Minimum score= 25

Students' score = $\frac{\text{Total score}}{40} \times 100$

40

Table 3.6

Range of the Score

Score	Range
85-100	Very Good
70-84	Good
55-69	Enough
54-25	Poor

D. The Technique of Analyzing Data

In order to find out whether there is a significant difference on students' speaking performance between extrovert and introvert, the researcher analyzed it by using the patterns below:

$$t_{hit} = \frac{M_1 - M_2}{\sqrt{\frac{SS_1 + SS_2}{n_1 + n_2 - 2} \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

Note:

M1 = group mean score 1

M2 = group mean score 2

SS1 = sum of square group 1

SS2 = sum of square group 2

n1 = number of subjects/sample group 1

n2 = number of subjects/samples group 2

Which mean:

$$M_1 = \frac{\sum X_1}{n_1} \qquad SS_1 = \frac{\sum X_1^2 - (\sum X_1)^2}{n_1}$$

$$M_2 = \frac{\sum X_2}{n_2} \qquad SS_2 = \frac{\sum X_2^2 - (\sum X_2)^2}{n_2}$$

The output of that is as the results of independent sample t-test analysis.

According to Pallant, "An independent sample t-test is used to compare the

mean score, on some continuous variables, for two different group participants.”⁹

The researcher required to examine the test's homogeneity and normality before doing independent sample t-test analysis. Because understanding the homogeneity and normality of the test is required in parametric analysis. Thus, in order to determine if the data had the same variance or not, the researcher required to describe the homogeneity analysis. The result of the homogeneity data can be interpreted as follows:

- a. If $X^2_{hitung} < X^2_{table}$: it means homogeneous
- b. If $X^2_{hitung} > X^2_{table}$: it means that it is not homogeneous.

Furthermore, in terms the normality test, it was analyzed by Barlett's with determining the significance level 5% (0.05) result of Liliefors test can be interpreted as follows:

- a. If the probability $L_{hitung} < L_{tabel}$. H_0 is accepted, it means the data is Normally distributed.
- b. If the probability $L_{hitung} > L_{tabel}$. H_a is accepted, it means the data is Abnormally distributed.

After determining that the data is normally distributed and has a homogeneous variance, the researcher used Independent Sample T-test

⁹ Julie Pallant, *SPSS Survival Manual: A step by step Guide to Data Analysis Using SPSS for Windows 3rd*, (New York: Open University Press, 2007), 232.

analysis to determine whether or not there is a significant difference in students' speaking performance between extroverts and introverts.