CHAPTER IV

RESEARCH FINDING AND DISCUSSION

This chapter presents the result of the research, describing normality and homogeneity measurements, data analysis, and hypothesis testing.

A. Presentation of Data

Presentation of data is the continue step after collecting of data that is gotten by the researcher. This section presents the data based on the research instrument that used. Researchers used three instruments, namely tests, questionnaires and documentation. To determine the influence of 8th grade students' learning styles on vocabulary mastery of kinesthetic and non-kinesthetic students, researchers needed student scores on the tests carried out, namely multiple choice or written tests, and researchers obtained test data from the kinesthetic class and non-kinesthetic class.

1. The Result of Data Test

The results of this study will describe the process of data collection which includes normality test, homogeneity test, significance test (t-test). The next discussion is the discussion of student learning style questionnaires related to the way each student has in learning. This research is conducted at SMP Islam Terpadu Al-Imron Pragaan Sumenep from March 16th 2022 up to March 19th 2022. In this study, the researcher

uses Ex post facto design which is going to measure possible influence of 8th grade learning styles as independent variable and Vocabulary mastery in SMP Islam Terpadu Al-Imron Pragaan Sumenep as dependent Variable.

There are three research instruments that used to collect the data. They are vocabulary test to measure students' vocabulary mastery, questionnaire to find out and group students learning style data kinesthetic and non-kinesthetic, and documentations which relate to study. This was done by taking the data in accordance with the provisions of the waka curriculum and English teachers who were directly approved by the principal of the SMP Islam Terpadu Al-Imron Pragaan Sumenep.

The researcher used multiple choice test to measure the student's ability on vocabulary skill. The test is asking students to answer question by ticking the correct answer.

Table 4.1 The result of kinesthetic test

No	Kinesthetic Class	Score	No	Kinesthetic Class	Score
1	S.1	65	13	S.13	80
2	S.2	65	14	S.14	85
3	S.3	65	15	S.15	85
4	S.4	70	16	S.16	85
5	S.5	70	17	S.17	85
6	S.6	70	18	S.18	90

7	S.7	75	19	S.19	90
8	S.8	75	20	S.20	90
9	S.9	80	21	S.21	90
10	S.10	80	22	S.22	90
11	S.11	80	23	S.23	90
12	S.12	80	24	S.24	95

The number of kinesthetic class students is 24 people, and the number of non-kinesthetic class students is also 24 people. From the data above shown the total score of kinesthetic class was 1930 and the mean score was 80.4. The highest score of kinesthetic class is 95, while the lowest score kinesthetic class 65. The researcher conducted the study in kinesthetic class on 17th Maret 2022.

Table 4.2 The result of non-kinesthetic test

No	Non-kinesthetic	Score	No	Non-kinesthetic	Score
1	s.1	45	13	s.13	55
2	s.2	50	14	s.14	60
3	s.3	50	15	s.15	60
4	s.4	50	16	s.16	65

5	s.5	50	17	s.17	65
6	s.6	50	18	s.18	65
7	s.7	50	19	s.19	65
8	s.8	50	20	s.20	65
9	s.9	50	21	s.21	70
10	s.10	50	22	s.22	70
11	s.11	50	23	s.23	80
12	s.12	55	24	s.24	85

The number of non-kinesthetic class students is 24 people, and the number of non-kinesthetic class students is also 24 people. From the data above shown the total score of non-kinesthetic class was 14.05 and the mean score was 58.54. The highest score of non-kinesthetic class is 85, while the lowest score kinesthetic class 45. The researcher conducted the study in kinesthetic class on 17th Maret 2022.

a. **Normality Test**

Normality test is used to determine whether or not the normal distribution of a data. The normality test in this study used the Kolmogrov-Smirnov test. The value used in the normality test is the result value of the data taken from the research sample. The level of significance in this study was 0.05 by looking for n-1 in the

Kolmogrov-Smirnov table, which resulted in 0.25. So the test rule if $D_{count} \le D_{table}$ then Ho is accepted, otherwise if $D_{count} \ge D_{table}$ Ho is rejected.

The hypothesis in the normality test is as follows:

Ho = Data normally distributed

Ha = Data is not normally distributed

Table 4.3 Kinesthetic and Non-Kinesthetic Normality Test Results

Class	D1	D2	Dcount	Dtable	Information
Kinesthetic	0,1507	0,1208	0,1507	0,275	Ho accepted
Non Kinesthetic	0,1702	0,2464	0,2464	0,275	Ho accepted

Based on table 4.3, the kinaesthetic value can be seen that D_{count} is obtained from the highest value between D1 is 0.1507 and D2 is 0.1208. So it can be concluded that the D_{count} obtained is 0.1507 and D_{table} is 0.275. Then it can be compared by looking at the test rules, if $D_{count} \le D_{table}$ then Ho is accepted. This means that the kinesthetic results are normally distributed.

Meanwhile, in non-kinesthetic, it can be seen that D_{count} is obtained and a high value between D1 is 0.1702 and D2 is 0.2464. So it can be concluded that the D_{count} obtained is 0.2464 and D_{table} is 0.275. Then it can be compared by looking at the test rules, if $D_{count} \le$

D$_{table}$ then Ho is accepted. This means that the non-kinesthetic data also has a normality distribution.

b. **Homogeneity Test**

      After the normality test was carried out, the homogeneity test was then carried out which aims to determine whether or not the homogeneity of the variance between groups was met through the kinesthetic and non-kinesthetic results of the two classes. Homogeneity test was carried out after the data were normally distributed. The results of the homogeneity test of this study with an error risk of 0.05. The calculation of the homogeneity test of the data was calculated manually and using the help of the Microsoft Excel 2013 program. The homogeneity test of this study used a homogeneity test with the hypothesis formula:

Ho = Both variants are homogeneous (v1 = v2)

Ha = Both variants are not homogeneous (v1 ≠ v2)

      The test criteria for F$_{count}$ then Ho is accepted (homogeneous variant), otherwise if F$_{count}$ ≥ F$_{table}$ then Ho is accepted (non-homogeneous variant). The results of the data homogeneity test can be seen in table 4.4

Table 4.4 Homogeneity Test Results

No	Data	Fcount	Ftable	Decision

1.	Homogeneity non-kinesthetic	0,49	2,01	Homogeneous
2.	Homogeneity kinesthetic	0,76	2,01	Homogeneous

Based on table 4.4, it can be seen that the non-kinesthetic homogeneity F_{count} is 0.49 with a significance level of 0.05. The non-kinesthetic homogeneity F_{table} obtained is 2,01, so that $F_{count} \leq F_{table} = 0.49 \leq 2,01$. According to the non-kinesthetic homogeneity test criteria, it is stated that Ho is accepted because $F_{count} \leq F_{table}$, so the two variants are homogeneous (v1 = v2).

Second, the kinesthetic homogeneity F_{table} is 2,01 with an error risk of 0.05. F_{count} kinesthetic homogeneity obtained 0.76, so $F_{count} \leq F_{table} = 0,76 \leq 2,01$ then both variants are homogeneous or Ho is accepted (v1 = v2).

So, it can be concluded that the homogeneity of the two data, namely non-kinesthetic and kinesthetic, is stated that Ho is accepted, i.e. has a homogeneous variance because both are $F_{count} \leq F_{table}$.

c. **T-test**

Hypothesis testing was carried out after the pre-requisites were met, namely the normality test and homogeneity test. Hypothesis testing aims to prove the hypothesis which states that there is a significant influence between the independent variables on the

dependent variable, to find out whether Ho is rejected or accepted it can be done by comparing T_{table} with T_{count}. The null hypothesis and alternative hypotheses in this study are:

Ha = there is an influence of 8th grades learning styles to the vocabulary mastery of kinesthetic and non-kinesthetic students in SMP Islam Terpadu Al-Imron Pragaan Sumenep.

Ho = There is no influence of 8th grades learning styles to the vocabulary mastery of kinesthetic and non-kinesthetic students in SMP Islam Terpadu Al-Imron Pragaan Sumenep.

With the following testing rules:

If $T_{table} \geq T_{count}$ then Ho is accepted

If $T_{table} \leq T_{count}$ then Ho is rejected

Then the value of T_{table} is based on the distribution table *t* by means of $t = (n-2)$. The results of research data processing using the t-test can be seen in table 4.5:

Table 4.5 T-test results

No.	Data	Tcount	Ttable	Decision
1	Test the significance of the kinaesthetic and non-kinaesthetic students	1.768	0.055	Ho rejected

Based on table 4.5, T_{count} is 1.768 and T_{table} is 0.055. So it can be concluded that $T_{count} \geq T_{table}$, then Ho is rejected so Ha is

accepted. Thus, there is a significant influence of 8th grades between learning styles to the vocabulary mastery of kinesthetic and non-kinesthetic students in SMP Islam Terpadu Al-Imron Pragaan Sumenep.

B. Discussion

1. Is there any differences in vocabulary mastery between kinaesthetic students and non-kinaesthetic students in SMP Islam Terpadu Al-Imron Pragaan Sumenep?

   The first process carried out by researchers is data collection activities which include tests, questionnaires and followed by documentation. The purpose of this implementation is to determine the ability of students in mastering vocabulary and learning styles that students have, where in this study the samples taken by researchers were A class as kinaesthetic class, and B class as non-kinaesthetic class.

   Before the test and questionnaire was carried out, the researcher explained to the students the procedures and conditions for taking the test that the researcher provided, then the students were given approximately 30 minutes to do the test. When the students taking the test, the researcher also paid attention to how the students taking the test, there were students who read the questions aloud, and there were also students remained calm taking the test even though their friends was a little crowded. After students finished, students were instructed to collect the tests and

questionnaire they had done to forward and the tests were then used as data by the researchers to be tested and calculated.

The process of collecting data in the kinaesthetic class is not much different from the non-kinaesthetic class, the difference only lies in the response and the way students learn which will affect their vocabulary. Kinaesthetic students in their learning style prioritize practice and tend to use body movements. As according to Alan Pritchard that visual learners prefer to learn by seeing, where visual learners have visual memory or in the sense of being able to remember well if the information presented is written or visible, and auditory learners who are learners with good listening skills, they are able to capture information by hearing. Meanwhile, the kinaesthetic students are students whose learning method requires physical activity, like field trips or study[1], it can be said that kinaesthetic students in learning have a superior position than non-kinaesthetic students, because kinaesthetic students like to find out at their roots, like to research or field trips, so it is said to be more active, active in learning. If students are already active in learning, then of course this will also affect their vocabulary mastery. This is evidenced by the results of the normality test, namely D_{count} for the kinaesthetic class $= 0.1507$ and D_{count} for the non-kinaesthetic class 0.2464.

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[1] Alan Pritchard, "*Ways of learning: Learning Theories and Learning Styles in The Classroom*," (New York: Routledge, 2009), 44-45.

Based on the discussion that has been described above, the difference in vocabulary mastery in the kinaesthetic class gets a better score than the non-kinaesthetic class. Thus, when compared, the results obtained prove that there is a difference between the kinaesthetic class and the non-kinaesthetic class in vocabulary mastery as measured by the normality test.

2. How significant is the different between kinaesthetic student vocabulary mastery and non-kinaesthetic students vocabulary mastery in SMP Islam Terpadu Al-Imron Pragaan Sumenep?

In learning English, not all students have the same learning style, their learning styles vary with their respective characteristics obtained from innate and habit. According to one of the 8th grade students at the SMP Islam Terpadu Al-Imron Pragaan Sumenep said that learning English is difficult "In my opinion, English is difficult, the difficulty is that I can't speaking, then if I am told to read, the writing and the reading is different, when the teacher dictate the vocabulary, I write differently from being dictated. That's it, basically learning English is difficult".[2] It was concluded that some of their difficulties were caused by their low vocabulary mastery and may not master vocabulary well.

Associated with Neuman and Dwyer, words we must know to communicate effectively, words in speaking (expressive vocabulary) and

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[2] Melinda Ramadhani Putri, *Students of 8th Grade Students of SMP Islam Terpadu Al-Imron Pragaan Sumenep, Interview* (17th Maret, 2022).

words in listening (receptive vocabulary).[3] Neuman directly said that should increase your vocabulary mastery because vocabulary is an important component when someone communicates, either effectively, expressively or receptively.

Therefore, both teachers and students must be able to recognize how to improve vocabulary mastery, which is closely related to the way students learn. Teachers need to know the learning style of each student, and students need to know which learning style suits them, so that it can affect vocabulary, etc. There are three learning styles, namely visual, auditory and kinaesthetic, and in this study are grouped into kinaesthetic and non-kinaesthetic.

Researchers distinguish these styles into 2 types because according to Mr. Johan of the English teacher at SMP Islam Terpadu Al-Imron Pragaan Sumenep said children like it when there is learning that involves the body, there are many kinds, especially if there is a game in the middle of learning, they are very enthusiastic when there is role play learning and others. The learning media used are digital media in the form of power points or videos, although learning still uses a blackboard and markers, handbooks are still used in teaching and learning activities which usually contain vocabulary.[4]

[3] Susan B Neuman and Julie Dwyer, " Missing and Action: Vocabulary Instruction in Pre-K," 62, No. 5 (February, 2009): 385, DOI: 10.1598/RT.62.5.2

[4] Johan Nurhidayat, *Subject Teacher of 8th Grade Students of SMP Islam Terpadu Al-Imron Pragaan Sumenep*, Interview (26th February, 2022).

So it can be concluded the students are more likely to have a kinaesthetic learning style. Kinaesthetic learning style is a learning style that uses a lot of gestures, so it is assessed that kinaesthetic students have better vocabulary mastery and are considered superior to non-kinaesthetic students. This can be seen when learning begins, kinaesthetic students are more active, ask a lot of questions, practice directly, and like to discuss. In the learning process, kinaesthetic students are more enthusiastic in learning. Even enthusiastic to participate in learning when there is a role play game in it.

After obtaining the results that meet the requirements for processing the data, then the normality and homogeneity test process is carried out. The first is the normality test and then the homogeneity test. The purpose of the homogeneity test is to see the effect of the independent variable on the dependent variable, and to find out the research hypothesis using the t-test, which is taken from two different group members. Significant level of 0.05 obtained T_{count} of 1.768 and T_{table} of 0.055. So it can be concluded that T_{count} is greater than T_{table}. So Ho is rejected so Ha is accepted. Thus, there is a significant influence between the learning styles of class VIII on vocabulary mastery at the SMP Islam Terpadu Al-Imron Pragaan Sumenep.

Based on the discussion described above, students' learning styles greatly affect the vocabulary mastery of the kinaesthetic class and non-kinaesthetic class, with a comparison of the kinaesthetic class getting a

better score than the non-kinaesthetic class. When compared, non-kinaesthetic classes the students learning style does not follow the instructions from the educator. So that in the t-test calculation, we get results which state that there is a difference between kinaesthetic and non-kinaesthetic classes in learning English, and this proves that there is an influence of class VIII learning style on vocabulary mastery at SMP Islam Terpadu Al-Imron Pragaan Sumenep.