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The Effect of Clustering Technique to Students' Writing Ability in MA Pi DDI Mangkoso Barru

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Abstract

The goal of the objectives of this article was to see how far some of the clustering can improve students' writing skills. In this work, a quasi-experimental approach was adopted. method with a sample size of 40 people, 20 from 20 participants in the experimental group from the control group. The research came to the conclusion that students a part of the experimental group who were taught using the clustering method were better than among the control sample of students who were taught the conventional way. This is evidenced by the as an alternative (Ho) is accepted, while the absence of a hypothesis (HI) is rejected after applying the post-test when higher than or equal to the t-table value, the test is t-tested formula is used. The meaning of the application of grouping has a significant impact on students' writing skills at MA Pi DDI Mangkoso.

Keywords: *Clustering technique, writing English, writing ability.*

1. Introduction

Writing is a kind of communication in which one sends massages (information) to another through writing utilizing written language as a tool or medium. Writing activities contain numerous components, including the writer as the massage's delivery vehicle, the writing's substance, the channel or media "For second language learners, writing is the hardest skill to acquire. The challenge isn't only the context of producing and structuring concepts, as well as interpreting them into understandable language. ext." (Richard & Renandya, 2002). In principle the function the main purpose of writing is as a tool indirect communication. Write very important for education because students will find it easy and comfortable in critical thinking. Also, can make it easier for us to feel and enjoy relationships, deepen grasping power or perception, solving problems faced, arrange the order for experience. During the observation on June 11, 2021 and an interview `with the MA Pi DDI Mangkoso English subject teacher, it is found that not all students can write well. Usually, students write just for the sake of completing an assignment. Purposes not for the communication purposes. They are very difficult to do this activity because they don't have a good method to start their writing.

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This means learners do not have the pre-writing skills to build their ideas. Teachers in teaching writing have used many ways. However, sometimes they do not pay much attention to the writing abilities of the students. This shows that students face problems in writing. Is a vital topic because they will need it in the future. As a result, writing abilities are regarded as critical for students, to improve their command of the English language. Therefore, writing skills are considered as critical abilities for students to command of the English language. Especially in the study of learning English writing skills, several researchers have often done it.

Because of this, the researchers come up with a hypothesis the research question: "Does cluster technique affect the writing ability of class XI MA Pi DDI MANGKOSO?"

2. Literature Review

One of the four abilities in the program is writing language. Without writing, we cannot study and know science, culture, the other language, etc. There are some definitions of writing mentioned by some experts. Permana (2020) stated that writing contains two steps. first our figure out your meaning, and then you put it into language. Figure out what you want to say, do not continue writing until you are responsible for planning using the draft only than begin writing. Supriadi (2018) said that writing is to express intentions that can be read not only by the writer by also by another.

Are among the most priceless pre-writing we may engage in several activities clustering, this particular true when we need concentration for a project or a natural organizational structure. Inventor of clustering is Gabrielle Lusser Rico in 2000. Clustering is a type of prewriting it enables us to investigate several concepts immediately upon their emergence. As with clustering and free association, clustering enables us to begin without preconceived nations. Clustering, as described by Tomlinson in 1997, is one approach we might use to develop a plan of action from our thoughts. Clustering enables us to see the connections between our thoughts and proposes organizing patterns for our work. Meanwhile. Siegel asserts that clustering is a technique for silencing the left brain and allowing the right brain to generate our own unique perspective on a topic. The procedure is obvious, but it will fail if we violate any of the definitive principles.

3. Research Methodology

3. 1. Research Design

This research applied quasi-experimental research method a is the non-equivalent design of the comparison groups employed in the studies. Where the two groups one experimental and one control are not selected randomly. The experimental and control groups carry out the initial test.

3. 2. Population and Sample

The people being studied in this study include entire class XI MA Pi DDI Mangkoso in the academic year 2021/2022 which consists of XI MIPA-1, XI MIPA-2, and XI IPS with a total of 113 students. Non-probability sampling method was applied in this investigation. Which is a method of selecting a sample in which not all elements

or members have the chance of being chosen as sample. same chance While the type of sampling with a purpose is known as deliberate sampling, namely the technique of determining the sample with certain considerations (Sugiyono, 2017: 119). This is because the teachers in all classes are the same teachers in English subjects. Therefore, the sample for MIPA-1 class-1, the experimental class, is being studied and XI MIPA-2 are the experimental and control groups, respectively.

3. 3. Instrument of the Research

Pre-test was were carried before to treatments. The researchers gave the students some topics. They make composition based on the topic minimally 100 words and maximally 150 words. The topics examined according to the essay instrument which contains content, organization, vocabulary, language usage, and mechanics are all included in the five components. These topics include: My activity in Islamic boarding school, My mother activity at home. The effect pollution in our country, the most favorite sport, and the favorite place.

Post-test the last examination before the material allowed on that day is given which is given in the post test with the aim of whether the understudy has endlessly perceived the material that was simply allowed on that day. The advantage of holding this present test is on find out about the capacities accomplished therefore, finish of the illustration. The consequences of this post-test are contrasted and the aftereffects of the pre-test that have been done so it will be known how far the impact or impact of the instructing that has been done, as well as realizing what portions of the showing materials are as yet not found by most understudies. Post-test was giving after treatment. The scientist gave a similar test as in pre-test.

3. 4. Technique of Analysis Data

To analyse the data collected through the text, the writer was using descriptive and inferential statistic. To find out the students writing skill in writing a good essay, it will view content, structure, vocabulary, language use, and mechanics are the five components. To measure the skill of each component of a good writing, the researchers referred to ESL composition profile of Jacobs et. Al's 1981.

4. Findings

4. 1. Pre-test

The percent score of students' is determined by administering a writing test prior to therapy, with clustering for experimental group and convectional method for the control group. The following are the percentages and frequencies for each component a comparison between experimental and control group procedures groups:

Table 1. Frequency and proportion of the content component's writing exam score

No	Qualification	Score	Experimental		Control	
			F	%	F	%
1	Very Good	86 – 100	-	-	2	10
2	Good	71 -85	1	5	1	5

3	Fair	56 – 70	15	75	9	45
4	Poor	41 – 55	4	20	7	35
5	Very Poor	< 40	-	-	1	5
TOTAL			20	100	20	100

The percent score of the experimental group on the subject component above demonstrates that more than 75% of students are unable to write well and their writing skills are still low. Meanwhile, 45% of students in the control group are also not able to write well and their writing skills are still low.

Table 2. Organization component frequency and rate percentage

No	Qualification	Score	Experimental		Control	
			F	%	F	%
1	Very Good	86 - 100	-	-	1	5
2	Good	71 -85	4	20	-	-
3	Fair	56 – 70	8	40	4	20
4	Poor	41 – 55	6	30	11	55
5	Very Poor	< 40	2	10	4	20
Total			20	100	20	100

Rate percentage of experimental 40% and control group 55% in the organization component above shows students they are unable to organize their writing effectively their primary ideas still stand out and are supported by a few supporting phrases.

Table 3. shows the frequency and proportion of students writing vocabulary on a writing test

No	Qualification	Score	Experimental		Control	
			F	%	F	%
1	VERY GOOD	86 – 100	-	-	1	5
2	GOOD	71 -85	-	-	1	5
3	FAIR	56 – 70	9	45	2	10
4	POOR	41 – 55	11	55	10	50
5	VERY POOR	< 40	-	-	6	30
Total			20	100	20	100

In the vocabulary component, the rate percentage of experimental group shows that more than 55 percent of pupils still have difficulty writing words. Compared to learners' leaners in the experimental group were compared to students in the control group are identically. The majority of learners in both groups made numerous mistakes in word order.

Table 4. writing exam scores for language use, by frequency and percentage

No	Qualification	Score	Experimental		Control	
			F	%	F	%
1	Very Good	86 – 100	-	-	-	-
2	Good	71 -85	3	15	3	15
3	Fair	56 – 70	-	-	-	-
4	Poor	41 – 55	5	25	3	15
5	Very Poor	< 40	12	60	14	70
Total			20	100	20	100

In the language use component, the rate percentage of experimental and control group shows that about 25% of pupils compose sentences with several grammatical faults. They made errors in sentence construction, such as using disorder words to establish in writing, rules apply.

Table 5. Frequency and rate percentage of the writing exam score for the mechanical component

No	Qualification	Score	Experimental		Control	
			F	%	F	%
1	Very Good	86 – 100	-	-	-	
2	Good	71 -85	9	45	6	30
3	Fair	56 – 70	5	25	5	25
4	Poor	41 – 55	-	-	-	
5	Very Poor	< 40	6	30	9	45
Total			20	100	20	100

Rate percentage of the experimental group 45% are able to write using correct punctuation and mostly, master paragraphs and also control grub 30% able to write using correct punctuation and master some capitalization.

4. 2. Posttest

The rate of students' scores is determine by administering a writing test after administering treatment to the control group utilizing clustering as well as a comparison group that used the standard procedure. The following are the rates percentages, and frequencies for each component in the experimental and control groups:

Table 6. shows the frequency and percentage of writing exam scores in the content component

No	Qualification	Score	Experimental		Control	
			F	%	F	%
1	Very Good	86 – 100	13	65	7	25
2	Good	71 -85	6	30	8	40
3	Fair	56 – 70	1	5	3	25
4	Poor	41 – 55	-	-	1	5
5	Very Poor	< 40	-	-	1	5
Total			20	100	20	100

In the content component, the rate percentage of experimental demonstrates that 65 percent of student can write a nice paragraph with topic the control group. However, in control group, 40% of students also can make good paragraph assigned with topic. The students in two groups can mostly tie their ideas to the issues, but there is still a lack of specificity.

Table 7. Frequency and rate proportion of students' writing organization's writing exam score

No	Qualification	Score	Experimental		Control	
			F	%	F	%
1	Very Good	86 – 100	7	35	5	25
2	Good	71 -85	11	55	10	50
3	Fair	56 – 70	2	10	5	25

4	Poor	41 – 55	-	-	-	-
5	Very Poor	< 40	-	-	-	-
Total			20	100	20	100

In the organization component, the rate percentage of the experimental group demonstrates that about 55 percent of students can write well and construct their ideas coherently. Their writing is well organized and logically sequence. Furthermore, the other pupils in the control group can organize their writing well. Their core concepts are mostly prominent, with only a few supporting sentences.

Table 8. students writing vocabulary frequency and rate as a percentage of their writing test score

No	Qualification	Score	Experimental		Control	
			F	%	F	%
1	Very Good	86 – 100	9	45	6	30
2	Good	71 -85	10	50	8	40
3	Fair	56 – 70	1	5	5	25
4	Poor	41 – 55	-	-	1	5
5	Very Poor	< 40	-	-	-	-
Total			20	100	20	100

In the vocabulary component, the rate percentage of the experimental group demonstrates that 50% of students are proficient at accurate word usage and word form competence. Only 40% of students in the control group are similar to the experimental group's leaners who use the proper grammar and spelling when they compose their papers. Furthermore, others are still having difficulty with simple word building.

Table 9. Frequency and rate percentage of the writing test score in the language usage component

No	Qualification	Score	Experimental		Control	
			F	%	F	%
1	Very Good	86 – 100	5	25	4	20
2	Good	71 -85	13	65	9	45
3	Fair	56 – 70	2	10	6	30
4	Poor	41 – 55	-	-	-	-
5	Very Poor	< 40	-	-	1	5
Total			20	100	20	100

In the language use component, the rate percentage of the experimental group show that more than 65 percent of students are proficient in using accurate language and word order. and control grub, 45 % also students are good in involving correct language and orders of word the majority of them are still lacking in writing building rules.

Table 10. Rate percentage and frequency of the writing test score in the mechanics component

No	Qualification	Score	Experimental		Control	
			F	%	F	%
1	Very Good	86 – 100	4	20	3	15
2	Good	71 -85	3	15	6	30
3	Fair	56 – 70	5	25	7	35
4	Poor	41 – 55	-	-	-	-

5	Very Poor	< 40	8	40	4	20
Total			20	100	20	100

The experimental group's rate percentage value for the mechanical component demonstrates that 40% of pupils have poor writing skill and do not employ proper punctuation. Meanwhile, in the control group, 35% do not have good writing skills and do not use correct punctuation. Mostly, they are still lacking in writing

4. 3. Score and Standard deviation of Pretest and Posttest

Table 11. score and standard deviation

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-Test Experiment	20	36.00	65.00	55.20	7.529
Post-Test Experiment	20	71.00	94.00	85.40	6.227
Pre-Test Control	20	31.00	80.00	50.25	11.933
Post-Test Control	20	63.00	90.00	79.10	7.779
Valid N (listwise)	20				

In the descriptive statistical table above, it can be seen that the mean value of the pre-test for the experimental class was 55.20, while the post-test was 85.40 with a standard deviation of 7.52 and 6.22. For the control class the pretest value was 50.25 while the posttest was 79.10 with a standard deviation of 11.93 and 7.77. This shows a change in the average value between the pretest and posttest value.

4. 4. Normality Test

Table 12. Test of Normality

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Kelas	Statistic	df	Sig.	Statistic	df	Sig.
Hasil Belajar Siswa	Pre-test Experiment	.138	20	.200*	.938	20	.217
	Post-Test Experiment	.111	20	.200*	.961	20	.562
	Pre-Test Control	.142	20	.200*	.956	20	.466
	Post-Test Control	.176	20	.106	.922	20	.106

The normality test was carried out to determine whether the distribution of the test was normally distributed with the provisions of the for all data, the significance value (sig) is calculated on the Kolmogorov test and the Shapiro Wilk test > 0.05 indicates that the data is regularly distributed. Because it can be seen in the table above table above it can be seen that all data both pretest and posttest in both classes are greater than the alpha value (0.05), then all values are normally distributed so that further tests can be carried out using parametric statistics in the shape of a t-test (paired sample t-test) test.

4. 5. Test Homogeneity

Table 13. Test of Homogeneity

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Hasil Belajar Siswa	Based on Mean	1.703	1	38	.200
	Based on Median	1.023	1	38	.318
	Based on Median and with adjusted df	1.023	1	34.967	.319
	Based on trimmed mean	1.610	1	38	.212

The only the homogeneity test is utilized. in the parametric test which examines the difference between two or more groups each with a different subject or data source. As a result, the homogeneity test is required in the context of an independent t-test assumption and ANOVA test. The decision-making targets for this homogeneity test are:

a. If the significance value is < 0.05 the variations of two or more population groupings are considered to be different
b. If the significance value is > 0.05, the variance of two or more population groupings is thus stated to be the same.

In the table it can be seen that the sig value is 0.200 which means that it is greater than the alpha value of 0.05 (0.200 > 0.05) so that the variance of two or more data population groups is the same as or with normal data.

4. 6. Statistical Hypothesis Testing

The t-test has carried out using the Paired-Sample T-Test because the data were normally distributed. The significance value can be seen in the following table:

Table 14. Test paired t-test pretest experiment and control

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-test - Kelas Eksperimen-Kontrol	51.225	10.299	1.628	47.931	54.519	31.456	39	.000

As mentioned previously in the hypothesis, there are two possible outcomes that the study predicted. The first outcome is the H0 (Null Hypothesis) where the use of clustering does no effect the students' writing ability. The second is the H1 (Alternative Hypothesis) in which use clustering technique affecting the student's writing ability. The criteria for hypothesis testing are if the Sig (2-tailed) or level of significance is lower than the alpha level (Sig < α), it can be indicated that the students score writing ability between pretest and posttest was significantly different and surely improved. In this research, the mean is statistically significant at α level = 0.05 because the level of significance or Sig = .000 is not larger than the alpha level or α = 0.05. So, the H1 (Alternative Hypothesis) is accepted meaning that the use clustering technique affecting the students 'writing ability and H0 (Null Hypothesis) is rejected because H0 means that use clustering technique does no effect for the students 'writing.

Table 15. Test paired t-test post-test experiment and control

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Posttest - Kelas Eksperimen-Kontrol	80.750	7.876	1.245	78.231	83.269	64.840	39	.000

As mentioned previously in the hypothesis, there are two possible outcomes that the study predicted. The first outcome is the H0 (Null Hypothesis) where the using of clustering method does not affect the students' composing ability. The second is the H1 (Alternative Hypothesis) in which the using of clustering method affecting the understudies composing ability. The criteria for hypothesis testing are if the Sig (2-tailed) or percentage of significance is lower than the alpha percentage (Sig < α), it very well indicated that the students value writing ability between pretest and posttest was significantly different and surely improved.

In this research, the mean is statistically significant at α percentage = 0.05 because the percentage of significance or Sig = .000 is not larger than the alpha percentage or α = 0.05. So, the H1 (Alternative Hypothesis) is acknowledged implying that the utilization of clustering method affecting the understudies' composing capacity and H0 (Null Hypothesis) is rejected because H0 means that using of clustering method does not affect the students 'writing ability.

5. Discussion

This exploration is fundamentally to figure out the distinctions in understudy learning results in the two groups of understudies with various medicines. To figure out the distinction, an alternate test was done with a matched example t-test on the consequences of the pretest and posttest of the two groups. In light of the information acquired utilizing the SPSS IBM-20 program, it shows that there is a massive contrast in the normal worth between the experimental class and the control class. In the homogeneity test, the information showed that the determination of the research class came from a homogeneous populace. Homogeneity test is utilized to decide if a portion of the populace fluctuations are something very similar or not. This test is normally done as an essential in the investigation of the Independent Sample T Test and ANOVA. In the examination information, it tends to be seen that the sig esteem is 0.108 which implies that it is more prominent than the alpha worth of 0.05 (0.108 > 0.05) so the fluctuation of at least two information populace groups is something very similar or with homogeneous information. In the meantime, to decide the normally of the information, a normally test was done with the Shapiro-Wilk. Normality

test is a test done to check whether our examination information comes from a populace that is typically appropriated. This test should be done in light of the fact that all parametric measurable estimations have the presumption of distribution normality. As is known from the examination information, it is realized that the ordinariness test has shown that the information is regularly appropriated in the experimental class variable of 0.562. While the variable in the control class is 0.106, which are all more noteworthy than the research alpha, which is 0.05. To figure out the distinction test, the t-test of this research utilizes the Matched Example T-Test. This is done in light of the fact that the information has met the essentials for a typical and homogeneous dispersion. In view of the consequences of the investigation of the examination results, it is known that Sig. (2-followed) < Alpha (0.025 < 0.05). This implies that Ha is acknowledged and H0 is dismissed. In this way, there is a huge distinction between learning results in the experimental class and the control class in view of the Matched Example T-test with an alpha of 5%.

6. Conclusion

In light of the aftereffects of the study, this study reasoned that understudies in the experimental group who are educated by utilizing clustering were superior to understudies in the control group who are shown utilizing customary way. This is confirmed by the dismissal of the invalid theory (Ho) and acknowledges the alternative hypothesis (Hi). In the wake of applying the t-test equation of posttest where the t-test esteem is higher than the t-table value. Importance use clustering has a significant affects understudies' writing skill at MA Pi DDI Mangkoso.

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