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Implementation of a Scientific Learning Strategy Approach to Students' Competence in Writing Short Stories in Class VIII

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Abstract. This research aims to know: 1) The effect of scientific approach on students' ability to write short stories in class VIII of SMP Swasta Muhammadiyah 25 Rantau Parapat Labuhan Batu Regency learning year 2023-2024; 2) The difference in students' ability to write short stories with learning using the scientific approach with the Contectual Learning Teaching (CTL) approach in class VIII of SMP Swasta Muhammadiyah 25 Rantau Parapat Labuhan Batu Regency learning year 2023-2024. The population in this study were class VIII students of SMP Swasta Muhammadiyah 25 Rantau Parapat Labuhan Batu Regency for the learning year 2023-2024 as many as 7 classes, each class of 36 people. The population of this research is 252 people. The sampling technique used is the classter random sampling technique. The research sample consisted of 2 classes, namely a control class and an experimental class, each of which consisted of 36 children. Data collection techniques with instruments in the form of data tests of students' abilities in writing short stories. This research uses quantitative methods with a pseudo-experimental approach. The data analysis technique used is the t-test with two tailed paired sample t-test (two paired samples) at a significant level of $\alpha = 0.05$. The results of hypothesis testing showed that: (1) There is an influence of scientific approach on students' ability to write short stories in class VIII of SMP Swasta Muhammadiyah 25 Rantau Parapat. This is known based on the t-test of scientific approach in the pre-test and post-test is (tcount 2.54> ttable 1.99). While in the CTL approach during the pre-test and post-test based on the t-test results found that (tcount 0.05 < ttable 1.99); (2) There is a difference in students' ability to write short stories with learning using a scientific approach with an approach that uses a CTL approach. This is known based on the results of the t-test, namely (tcount 2.03> ttable 1.99).

Keywords: Scientific approach, competency, writing, short story

I. INTRODUCTION

The learning approach is the way the teacher goes about making the concepts presented acceptable to the students. Approach can also be interpreted as our starting point from the learning process underlying learning methods with some theoretical scope. In teaching, teachers must be good at using approaches wisely and judiciously, not carelessly, which can harm students. The teacher's view of the students will determine attitudes and actions. Not every teacher has the same view of students. This will affect the approach to teaching.

One of the learning materials discussed here is short story writing. Writing short stories is one of the skills that students in Grade VIII of Junior High School (SMP) must master. Writing short stories has advantages for students to be able to write creatively and to train themselves to be sensitive to imagination, to practice using literary language, and to understand human beings as a whole in terms of thoughts, feelings, and attitudes. The obstacles in the implementation of learning to write short stories are divided into internal and external obstacles. Internal barriers are in the form of psychological barriers, namely students' low interest, attitudes and prior knowledge relevant to writing short stories. External barriers

in the form of inadequate learning environment and cultural problems, namely, students are not required to master literary writing skills. Teaching materials are only needed to overcome learning barriers and support the smooth learning of short story writing.

In view of the importance of short story writing skills for students, there is a need for the development of short story writing materials in Indonesian language teaching. According to Sukirno (2010:83), writing short stories is very useful as an expression of a series of events that are imagined or experienced. Thus, the importance of developing teaching materials is based on several reasons, namely, considering the students' needs and demanding that teachers can provide quality learning materials.

According to the appendix of Permendiknas No. 22 of 2006 on content standards, it is explained that literary writing skills are elaborated in two competency standards. (1) reveal thoughts, feelings and experiences in short stories; (2) rewrite short stories that have been read in one's own words; (3) write short stories based on events that have been experienced".

The teacher began teaching the short story material using Contextual Teaching and Learning (CTL). This approach did not meet or exceed the KKM set by the school or the teacher. After the initial research was conducted, it was found that the CTL approach was still not suitable to be applied as there were still many weaknesses. This can be seen from the average score

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of the pre-test results conducted on the students of Class VIII of SMP Swasta Muhammadiyah 25 Rantau Parapat Labuhan Batu Regency Learning Year 2023-2024 is still very low.

This phenomenon may be due to the following factors: (1) Students are less able to develop their imagination through phenomena or events they see or experience; (2) Students lack the courage to ask questions related to things they don't know; (3) Students find it difficult to explore their own knowledge about short story writing techniques; (4) Students are used to being told by the teacher instead of finding out what is being studied more carefully and deeply; (5) Students are less able to solve their own problems; (6) Students are not motivated to write and read; (7) Students lack the courage to interact with each other and with the teacher; (8) The learning approach used is more teacher-centered; (9) Process evaluation is not carried out, only evaluation after the process.

The low ability of students in writing short stories is also greatly influenced by the low ability and creativity of teachers in managing learning or choosing the right approaches and methods to teach short story material. Based on the 2013 curriculum, planning must consider the conditions and characteristics of students.

The researcher tries to offer a scientific approach that can be applied to the teaching of short stories in class VIII, based on the description of the above problems. The 2013 curriculum emphasizes that learning is implemented with a scientific approach. The scientific approach involves students actively constructing the concept, law, or principle through the stages of observing (to identify and find problems), hypothesizing, collecting data using various methods, analyzing the data, drawing inferences, and communicating the concept, law, or principle found.

In order to achieve quality education, the government has established the 2013 curriculum to be implemented in Junior High Schools (SMP). In connection with Permendikbud No.65 of 2013 on process standards for primary and secondary education, it is stated that the 2013 curriculum applies learning with a scientific approach. The scientific approach in the learning process develops 3 areas of student competence, namely the areas of attitude, knowledge and skills. Indicators of the achievement of these three domains refer to core competencies - basic competencies. By applying the scientific approach, it is expected to improve the quality of learning and learning outcomes in short story writing.

Therefore, educators need to strengthen their ability to facilitate students to be trained to think logically, systematically, and scientifically. This challenge requires improving teachers' skills in implementing learning with a scientific approach.

Learning Indonesian based on the scientific approach is learning Indonesian that is procedurally designed according to the general steps of scientific activities. Indonesian language learning based on the scientific approach aims to improve students' intellectual abilities, especially their higher-order thinking skills. Therefore, the competencies of teachers and students are needed in the teaching and learning process. Students are required to be able to solve problems with higher order thinking skills, while teachers are required to have the ability to implement and update the curriculum.

One of the areas of teacher competency standards is learning management competencies. Learning management competencies include lesson planning, lesson implementation, and lesson evaluation. However, in reality, there are still many Indonesian language teachers who have difficulties in applying the scientific approach in Indonesian language teaching based on the 2013 curriculum.

Priyatni (2014: 4) explains that the factors that cause teachers to experience difficulties include: (1) the formulation of basic competencies (KD) of Indonesian language subjects is difficult for teachers to understand because the types of text are arranged in rows in a KD, (2) each KD for each basic competency (KD) contains a taxonomy of thinking that has not been well mastered by each teacher, (3) each KD contains different types of text, and (4) teachers also do not understand how to integrate the dominant KD of attitude, knowledge, and skills in an integrated manner.

One of the basic competencies of Indonesian language subjects is the literary aspect of junior high school grade VIII for the sub-aspect of writing, which explains that students must be able to write short stories based on events that they have experienced (Santoso, 2013: 132). Writing a short story is the narration of real or imagined events in a written form that can be read in about 10 minutes or consists of 500 to 5000 words, with the events deliberately arranged in chronological order. (Nurgiantoro, 2011). In order to reach these proficiency standards, the learning process of Indonesian language and literature not only teaches literary theory, but also emphasizes writing practices so that the requirements of these proficiency standards can be reached. Thus, through the selection of a scientific approach in learning to write short stories, it can trigger enjoyable learning for students. With the application of scientific approach in learning to write short stories, students can first organize their ideas, thoughts and experiences in an orderly way.

Based on the above background, the researcher wants to find out the difference between synthetic approach and CTL approach and whether there is an influence of scientific approach on the ability of students of class VIII of SMP Swasta Muhammadiyah 25 Rantau Parapat, Labuhan Batu Regency in 2023-2024 learning year in writing short stories. In connection with the background of the problems that have been described, the researcher tries to find a solution through a research entitled: "Implementing the Scientific Learning Strategy Approach to Student Competence in Writing Short Stories Class VIII SMP Swasta Muhammadiyah 25 Rantau Parapat Labuhan Batu Regency Learning Year 2023-2024".

II. METHODS

This research design uses Pretest-Posttest Control Group Design. This design was chosen because the research involved two groups that were placed randomly (R). The first group as the experimental class was given treatment in the form of a scientific

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approach (X1) and the second group as the control class was given treatment in the form of a CTL (Contectual Teaching Learning (X2) approach.

This research was conducted at VIII SMP Swasta Muhammadiyah 25 Rantau Parapat located on Jl. Kh. A. Dahlan Rantauprapat. It has a comfortable atmosphere for learning because it is far from the noise of vehicles. Overall from planning to the completion of this research spent 4 months starting from November 2023 to planned in February 2024.

The variables in this study consist of two variables, namely the independent variable and the dependent variable.

1. The independent variable in this study is the scientific approach.
2. The dependent variable in this study is the students' ability to write short stories.

According to Arikunto, population is the entire object of research, if the subject is less than one hundred it is better to take all, so that the research is population research. If the number of subjects is large, it can be taken between 10% - 15% or 20% - 25% or more. Thus what is meant by the population in this study is the entire class VIII of SMP Swasta Muhammadiyah 25 Rantau Parapat which consists of seven average classes each class consists of 36 people so that the total VIII class of SMP Swasta Muhammadiyah 25 Rantau Parapat Labuhan Batu Regency Learning Year 2023-2024 is 7 X 36 people = 252 students. This population is a population based on a predetermined number.

While the sample is part of the number and characteristics possessed by the population (Sugiyono, 2011: 118). The selection of this research sample was not carried out by randomizing individuals, because it could not change the previously formed class. The class was chosen as it had been formed without the intervention of the researcher and the randomization of individuals, the possibility of influences from the state of the subject knowing he was involved in the experiment could be reduced so that this study truly described the effect of the treatment given (Sevilla et al, 1993). So that the samples taken from this study were 2 classes consisting of experimental classes and control classes, each class totaling 36 students in class VIII of SMP Swasta Muhammadiyah 25 Rantau Parapat.

The research sample was determined in a stepwise manner as follows: a). Determining classes for research implementation randomly. This determination was made by taking into account the characteristics of students who have similarities that can affect the acquisition of children's mathematical concepts, such as the quality of teachers, the curriculum used, the facilities and infrastructure owned by Muhammadiyah 25 Rantau Parapat Private Junior High School, the social environment comes from a weak economy most of the parents have low income and work as farmers and self-employed but have a high enthusiasm for learning and geographical schools away from noise, family characteristics such as parental educational background, and family socio-economic status. b). Selected classes at Muhammadiyah 25 Private Junior High School in Rantau Parapat based on the same characteristics, namely the quality of the teachers, the curriculum used, the facilities and infrastructure owned by the kindergarten, the social and geographical environment of the school, the educational background of the parents, and the socioeconomic status of the family, one class was determined as a learning group using the scientific approach with authentic assessment techniques. c). Determination of sample size using the provisions set by Gay, namely in each cell of the design used there are at least 15 research subjects so that with a 2 x 2 design a minimum sample of 72 people is used. So in this study 36 people were taken for each class so that the research sample consisted of 72 students. d).The sampling technique used in this study is to use sample random sampling by lottery, this method is carried out as we do the lottery. All individuals in the population either individually or together are given the same opportunity to become members of the sample. This sample determination is called a simple random sample such as arisan, carried out by entering the names of the sample population (sample frame), then shaken / shaken, the names that come out of the first shuffle become the experimental class using a scientific approach in their learning and the second shuffle becomes the control class using the contextual approach to learning. So after the drawing, class VIII as the experimental class and class VIII as the control class.

Test data collection tool measures because it contains questions or questions whose alternative answers have standard answers. Tests are used to measure the learning outcomes of students in Indonesian language learning, both initial proficiency, developing or improving Indonesian language learning outcomes of learning activities using approaches carried out in the classroom. This method is used to collect data on the effect and application of the scientific approach with authentic assessment techniques on student learning outcomes.

This study used tests to determine students' learning outcomes in the field of Indonesian language at VIII SMP Swasta Muhammadiyah 25 Rantau Parapat. The assessment tools in this study are pre-test and post-test. The results of the pre-test were held before students participated in learning by using a scientific approach, from the results of this pre-test were used to determine the initial ability of students. While the post-test is held after students participate in learning by using a scientific approach with authentic assessment techniques, the results of post-test are used to determine whether the application of a scientific approach with authentic assessment techniques is effective in improving student learning outcomes in the field of Indonesian language studies.

Data analysis technology is the process that categorizes the order of the data, organizes it into a scheme, category and basic descriptor units, it differentiates it from interpretation, that is, giving the analysis significant meaning, explaining the descriptive scheme and seeking relationships between the descriptive dimensions. If we examine the above definition, we can conclude that data analysis is the process of organizing and sorting data into patterns, categories, and basic descriptive units so that themes can be found and working hypotheses can be formulated as suggested by the data.

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Data analysis means on behalf of the organization of data, the data collected is a lot and consists of field notes and investigator's comments, images, photographs, documents, reports, etc., and the work of data analysis is organizing, sorting, classifying and giving a certain code and categorizing, the data management aims to find themes and working hypotheses, which will eventually be raised to substantive theory (Moeloeng, 2007: 103).

Data analysis is a process, the process means that it starts from data collection and is intensive, the work of data analysis requires focused efforts and direction of physical and mental energy from the researcher, and in addition to data analysis, the researcher needs to explore the literature to confirm or justify new theory that might emerge.

III. RESULTS AND DISCUSSION

Research data collected from students of SMP Swasta Muhammadiyah 25 Rantau Parapat, with 1 experimental class and 1 control class consisting of 36 people each. The research respondents are presented in the form of description of all cell data, which are: (1) Data on the ability of the students to write short stories with the scientific approach (pre-test) (2). Data on students' ability to write short stories using the scientific approach (post-test) (3) Data on students' ability to write short stories using the CTL approach (pre-test). (4) Data on Students' Ability to Write Short Stories with the CTL Approach (Post Test) The specific data description in this study can be explained as follows:

Tabel 1. Summary of Data on Students' Ability to Write Short Stories

Stat	LEARNING APPROACH				Total
	SCIENTIFIC APPROACH		CTL APPROACHT		
	Pre test	Post Test	Pre test	Post Test	
N	36	36	36	36	72
$\sum X$	2521	3057	2523	2629	5686
$\sum X^2$	176883	260687	177109	192639	453326
$\bar{X}$	70,03	84,91	70,13	73,03	78,97
SD	3,13	5,59	2,87	4,31	
S	9,79	31,33	8,25	18,54	

Data on the Ability of the Students to Write Short Stories with a Scientific Approach (Pre-Test) The highest score is 75 and the lowest score is 65 based on the total calculation of the students' ability to write short stories with a scientific approach. The results of data analysis show that the mean is 70.027, the variance is 9.78, and the standard deviation is 3.31 under the conditions that the number of interval classes (k) is 6 and the length of interval classes (P) is 2. On the basis of these data, the frequency distribution of the ability of the students to write short stories using the scientific approach is arranged in Table 2 as follows:

Tabel 2. Frequency Distribution of Students' Ability Score in Writing Short Stories with the Scientific Approach

Class Interval	F_{mutlak}	$F_{relatif}$
65-66	5	13.89
67-68	7	19.44
69-70	9	25
71-72	6	16.67
73-74	6	16.67
75-76	3	8.33
Jumlah	36	100

We know that the calculated averages are below the ideal averages. By looking at the distribution of data, it is known that as many as 9 children or 25% of children in SMP Swasta Muhammadiyah 25 Rantau Parapat Labuhan Batu Regency Learning Year 2023-2024 who have a score of student ability in short story writing, then as many as 12 children or 33.33% of children who are below the ideal average and as many as 15 children or 41.66% of children who are above the average score in short story writing. Based on the results of Table 1, the distribution of scores in short story writing according to the scientific approach to learning is shown in Figure 1 in the form of a histogram graph as follows:

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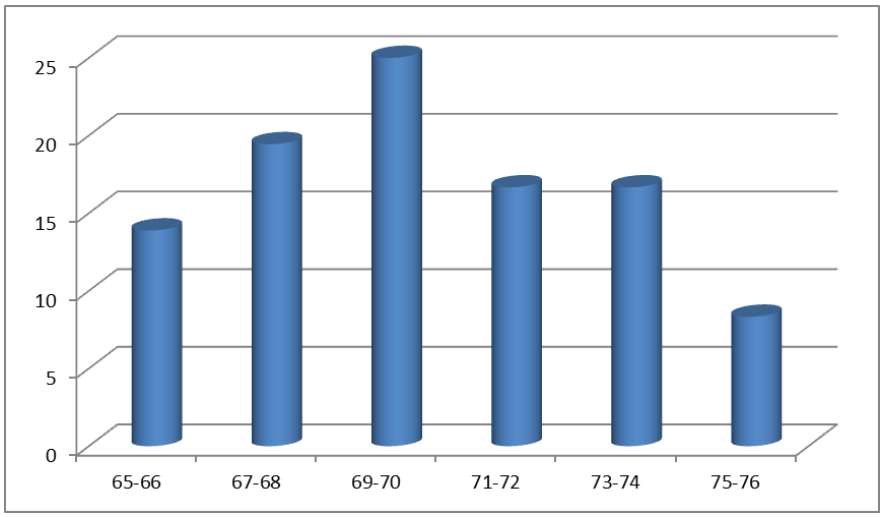

Fig 1. Histogram of Students' Ability to Write Short Stories with the Scientific Approach

Data on Students' Ability to Write Short Stories with a Scientific Approach (Post-Test) Based on the total calculation of students' ability to write short stories with scientific approach, the highest score is 95 and the lowest score is 75. Thus, the data range is 20. The results of data analysis using the provisions that many interval classes (k) is 6 and the length of the interval class (P) is 4 show that the mean is 84.91, the variance is 31.33, and its standard deviation is 5.59. Based on these data, the frequency distribution of students' ability to write short stories using the scientific approach is arranged in Table 3. as follows:

Tabel 3. Frequency Distribution of Students' Ability Score in Writing Short Stories with the Scientific Approach

Class Interval	F_{mutlak}	$F_{relatif}$
75-78	6	16.67
79-82	7	19.44
83-86	10	27.78
87-90	6	16.67
91-94	5	13.89
95-98	2	5.56
Jumlah	36	100

It is known that the calculated mean is between the ideal mean from the analysis results. If we consider the distribution of data, it is known that up to 10 children or 27.78% of children in SMP Swasta Muhammadiyah 25 Rantau Parapat who have a score of student ability in writing short story, then up to 13 children or 36.1% of children who are below the ideal average and up to 13 children or 36.1% of children who are above the average score in writing short story. On the basis of the results of Table 4.3, the distribution of the scores in writing short stories that follow the learning with a scientific approach is shown in the form of a histogram graph in Figure 2 as follows:

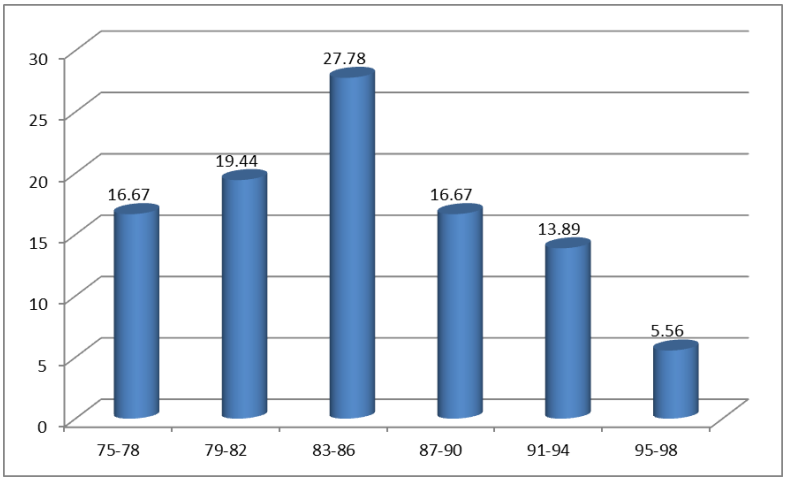

Fig 2. Histogram of the ability of the students to write a short story using the scientific approach.

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Data on Students' Abilities to Write Short Stories with CTL Approach (Pre-Test) The highest score is 75 and the lowest score is 65 based on the total calculation of students' ability to write short stories with CTL approach. Data analysis results show that the mean is 73.083, the variance is 8.25 and the standard deviation is 2.87 based on the conditions that many interval classes (k) 6 and the length of interval class (P) 2. On the basis of these data, the frequency distribution of students' short story writing ability with CTL approach is as follows in Table 4:

Tabel 4. Frequency Distribution of Students' Ability Score in Writing Short Stories with CTL Approach

Class Interval	F_{mutlak}	$F_{relatif}$
65-66	3	8.33
67-68	8	22.22
69-70	10	27.78
71-72	7	19.44
73-74	5	13.89
75-76	3	8.33
Jumlah	**16**	**100,00**

The analysis shows that the calculated average scores are slightly above the ideal average scores. If we look at the distribution of the data, we can see that 10 children (27.7%) of the students in class VIII of SMP, are average in their short story writing ability, 11 children (30.55%) of the students are below the ideal average and 15 children (41.65%) of the students are above the average in their short story writing ability with the CTL approach. On the basis of the results of Table 4, the distribution of students' scores in short story writing ability with the CTL approach is shown in Figure 3 in the form of a histogram graph as follows:

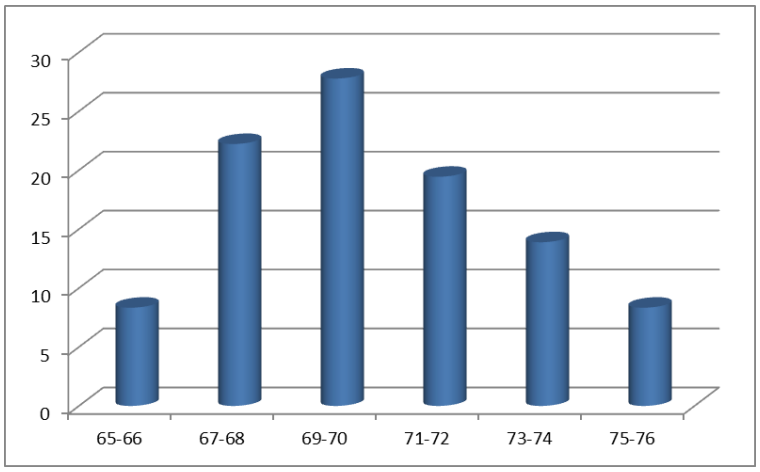

Fig 3. Histogram of Students' Ability in Writing Short Stories with CTL Approach

Students' Ability to Write Short Stories with CTL Approach (Post-Test) The highest score is 80 and the lowest score is 65 based on the total calculation of students' ability to write short stories with CTL approach. Data analysis results show that the mean is 73.03, the variance is 18.54 and the standard deviation is 4.30 based on the provisions that many interval classes (k) 6 and the length of interval class (P) 3. On the basis of these data, the frequency distribution of students' short story writing ability with the CTL approach is shown in Table 5 as follows:

Tabel 5. Frequency Distribution of Students' Ability Score in Writing Short Stories with CTL Approach

Class Interval	**F_{mutlak}**	**$F_{relatif}$**
65-67	3	8.33
68-70	8	22.22
71-73	10	27.78
74-76	7	19.44
77-79	6	16.67
80-82	2	5.56
Jumlah	16	100,00

The analysis shows that the calculated average scores are slightly below the ideal average scores. If we look at the distribution of data, it is known that up to 10 children or 27.7% of VII grade students in VIII SMP Swasta Muhammadiyah 25 Rantau Parapat have an average score of ability in writing short story, then 11 children or 30.55 children who are below the ideal average and up to 15 children or 41.65% of children who are above the average score of students' ability in writing short story with the CTL approach. On the basis of the results of Table 5, the distribution of the scores of the students' ability in writing short stories with the CTL approach is shown in the form of a histogram graph in Figure 4 as follows:

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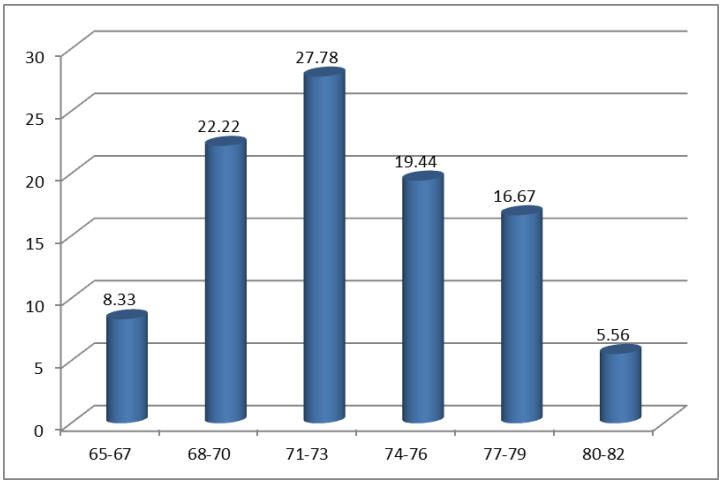

Fig 4. Histogram of Students' Ability in Writing Short Stories with CTL Approach

Requirements for Analyzing Test Data. Prior to the analysis of research data, there are several prerequisites that must be met in order to proceed with the testing of hypotheses. There are several assumptions that must be met in order to use analysis of variance. The assumptions are 1) normality (multivariate normality) and 2) homogeneity of variance. The second assumption was met at the time the research sample was determined by randomly selecting the kindergarten that received the treatment. The following tests of assumptions, namely tests of normality and homogeneity, will be conducted.

The Normality Test is used to determine how the data for each group gets distributed. The results of the normality test indicate whether or not the data for each group are normally distributed. The normality test is performed using Lilliefors. The steps in the Lilliefors test are as follows1: a) Sort the data from smallest to largest and continue by determining the frequency of each data, b) Determine the z-value of each data, c) Determine the probability for each z-value based on the z-table - F(z), d) Calculate the relative cumulative frequency of each z (Sz), e) Determine the value of Lo = IF(z) - S(z)I and compare with Lt from the Lilliefors table, f) Use Lo < Lt to determine that the sample comes from a normally distributed population. The test of normality of the students' ability to write short stories was carried out on all groups, using these steps obtained Lo from each group, namely:

Tabel 6. Testing the Normality of Data on Students' Ability to Write Short Stories

No	Group	N	Lo	L_{tabel}	Conclusion
1	Students' ability to write short stories using the scientific approach (Pre Test)	36	0,86	0,15	Normal
2	Students' ability to write short stories using the scientific approach (*Post Test*)	36	0, 08	0,15	Normal
3	Students' ability to write short stories with the CTL approach (*Pre Test*)	36	0,12	0,15	Normal
4	Students' ability to write short stories with the CTL approach (*Post Test*)	36	0, 09	0,15	Normal

It can be seen that all data groups have Lo smaller than Ltabel. This means that all data groups are normally distributed. Thus it can be stated that the normality analysis requirements are met for all data groups.

The homogeneity of variance test is the next analysis requirement. The test of homogeneity of variance is used to determine whether or not the research sample is drawn from a population that is homogeneous. The data on students' ability to write short stories using the scientific approach and the data on students' ability to write short stories using the CTL approach are the 2 data to be tested for homogeneity. The Fcount statistic, which calculates the F-table by dividing the largest variance by the smallest variance, was used to test the homogeneity of the two treatment groups. The criteria used are: Fcount is less than Ftable at a significant level of 0.05%, the groups are homogeneous.

Tabel 7. Variance Homogeneity Test Results

No	Ket	Clasas	Test	Criteria	Conclusion
1	*Pre Test*	Control	1,18	1,75	homogen
		Experiment			
2	*Post Test*	Control	1,68	1,75	homogen
		Experiment			

From Table 7, we can see that the calculation results show that in the treatment group, the largest variance (S2) is 31.33 and the smallest variance (S2) is 18.84. The homogeneity index of the variance between the two pre-test and post-test groups is

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obtained by dividing these two numbers. In the pre-test results tested (Fcount) is 1.18, the F-table value is 1.75. Therefore, Fcount < Ftable, which means that Ho is accepted. Thus, it can be said that the two groups tested, namely the group using the scientific approach and CTL and the pre-test group, are from a homogeneous population. In the post-test results tested (F count) is 1.68 the F table value is 1.75. Thus, Fcount < Ftable, which means that Ho is accepted. Therefore, it can be said that the two groups that were tested, namely the group that used the scientific approach and the CTL in the post-test group, are from a homogeneous population.

The requirements of the analysis test for the analysis of variance for the data of each group have been met, that is, the data of each group are normally distributed, have a homogeneous variance, and come from a randomly selected sample. On the basis of the description of the data, the hypothesis about the short story writing ability of the students in this study can be tested by means of t-test analysis. This t-test uses a two-tailed paired sample t-test (two parties - paired samples), then the calculation results are compared with 0.05. If the calculation result is less than 0.05, the hypothesis is accepted. If the calculation result is less than 0.05, the hypothesis is accepted, but if the calculation result is greater than 0.05, the hypothesis is rejected.

Tabel 8. Satatistic Calculation Results of Students' Ability to Write Short Stories

Stat	LEARNING APPROACH				Total
	SCIENTIFIC APPROACH		CTL APPROACH		
	Pre tes	Post Tes	Pre tes	Post Tes	
N	36	36	36	36	72
∑ X	2521	3057	2523	2629	5686
∑ X^2	176883	260687	177109	192639	453326
$\bar{X}$		84,91	70,083	73,027	78,97
SD	70,027	5,59	2,87	4,36	
S		31,33	8,25	18,54	
	3,13				
	9,79				

Based on the calculation of the t test, it can be seen that there is a difference in students' ability to write short stories between students taught using a scientific approach and children taught with the CTL approach explained in the table as follows:

Tabel 9. Hypothesis Testing

No	Class	Note	t_{hitung}	t_{tabel}	Conclusion
1	Scientific	Pre Test	2,54	1,99	Significant
		Post Test			
2	CTL	Pre Test	0,50	1,99	Not Significant
		Post Test			
3	Scientific		2,03	1,99	Significant

On the basis of the above table, the t-test results of the scientific approach in the pre- and posttest is (2.54 > 1.994), it can be said that there is a significant difference between the treatment using the scientific approach during the pre- and posttest, so the hypothesis is accepted. While the C.T.L. method during the pre- and posttest on the basis of t-test results that (0.05<1.99) proves that a significant difference exists between the treatment with the C.T.L. method during the pre- and posttest is not significant, so the hypothesis is rejected. The t-test results of the scientific approach and the CTL approach is (2.034 > 1.994), it can be stated that there is a significant difference between the treatment using the scientific approach and the CTL approach, so the hypothesis is accepted.

Scientific approach to students' ability in writing short stories in class VIII of SMP Swasta Muhammadiyah 25 Rantau Parapat. This sample consists of two classes, namely an experimental class with 36 students and a control class with 36 students. The experimental class is the class that gets treatment using the scientific approach, while the control class is the class that uses the CTL approach. With the difference in treatment given to the two classes, it is expected to have an influence on the students' ability to write short stories.

The following describes the effect of treatment on students' ability to write short stories of experimental and control class students as seen from the comparison results. class averages and t tests which can be summarized in the following table:

Tabel 10. Summary of Experimental Class and Control Class Data

No	Treatment	Average	t_{hitung}	t_{tabel}
1	Scientific Approach *Pre Test*	70,03	2,54	1,99
	Scientific Approach *Post Test*	84,91		
2	CTL Approach *Pre Test*	70,08	0,50	1,99
	CTL Approach *Post Test*	73,03		
3	Scientific Approach	84,91	2,03	1,99
	CTL Approach	73,03		

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Referring to the data summarizing table above, it can be seen that the average acquisition of the experimental class is higher than that of the control class. In order to compare whether the students' short story writing ability in the experimental class is higher or lower than the students' short story writing ability in the control class, a t-test is conducted. The t-test results of scientific approach in pre-test and post-test are (2.54 > 1.994), so it can be said that there is a significant difference between the treatment with scientific approach in pre-test and post-test significantly, so the hypothesis is accepted. While the CTL approach during the pre-test and post-test based on the t-test results that (0.0504 < 1.994) proves that there is a significant difference between the treatment using the CTL approach during the pre-test and post-test insignificantly, so the hypothesis is rejected. The t-test results of the scientific approach and the CTL approach are (2.03 > 1.99), it can be stated that there is a significant difference between the treatment using the scientific approach and the CTL approach significantly, so the hypothesis is accepted.

While implementing the treatment in the experimental class, students enthusiastically followed each step of the scientific approach, such as feeling happy because they had the opportunity to reveal their initial knowledge about the discussed material. Furthermore, students who feel that they understand the material being discussed are happy to explain it to other students who do not understand or to students who are less proficient, so that the discussions held also teach students cooperation skills to improve their social skills. The creativity of the students was also evident in the presentation of short stories written by the students.

The learning process is considered very important in the scientific approach rather than the learning outcomes as the end. Therefore, the scientific approach emphasizes process skills. This approach emphasizes the process of seeking knowledge rather than the transfer of knowledge, students are seen as learning subjects who need to be actively involved in the learning process, the teacher is only a facilitator who guides and coordinates learning activities. In this model, students are invited to engage in a process of seeking knowledge about the subject matter, in this case knowledge that can help children write short stories. Thus, students are directed to find different facts, build concepts and new values needed to write short stories. The focus of the learning process is to develop students' skills in processing knowledge, finding and developing their own facts, concepts and values.

Thus, the scientific approach can encourage and inspire students to think critically, analytically, and accurately in identifying, understanding, solving problems, and applying in their activities to write a short story. This approach can also encourage and inspire students to be able to think hypothetically in seeing differences, similarities, and links to each other from the content in writing short stories and encourage and inspire students to be able to understand, apply, and develop rational and objective thinking patterns in responding to the content, especially in writing a short story. Based on the above description, the proposed problem formulation can also be answered, namely: 1) There is an effect of the scientific approach on students' ability to write short stories; 2) There is a difference in students' ability in writing short stories taught with the scientific approach and the CTL approach.

IV. CONCLUSIONS

In class VIII of SMP Swasta Muhammadiyah 25 Rantau Parapat, there is an influence of scientific approach on the ability of students to write short stories. This is based on t-test test of scientific approach in pretest and posttest (tcount 2.54> ttable1, 99). While in the CTL approach during the pre-test and post-test on the basis of the results of the t-test states that (tcount 0.05 < ttable 1,99). There is a difference between learning with scientific approach and learning with CTL approach in students' ability to write short stories. This is based on the results of the t-test, namely (tcount 2.03> ttable 1.99).

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