Implementation of Learning Methods and Levels of Self Regulated Learning in Writing

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Abstract

The research approach used by researchers is a quantitative approach. This study aims to examine whether there are differences in English text writing skills of students who learning using CIRC and PWIW learning methods as well as Students with high and low levels of Self-Regulated Learning. The sample in this study were the 80 seventh grade learners of MTsN 1 Palangkaraya, Central Borneo, Indonesia, in 2018/2019 academic year involved in this study. They then were divided into two classes randomly sampled to be the experimental group and the control group. Data analysis using the *independent sample t test*. The research findings obtained the pretest value showed no difference in students 'writing skills learned by the CIRC method (68.525) and PWIW (70.525) while the posttest value test showed that there were differences in the students' writing skills learned by the CIRC method more higher equal to 79.20 compared to PWIW amounted to 69.52. The findings of the study show that students with low self-regulated learning have a higher value of English text writing skills 84.58 compared to students with high self-regulated learning at 74.33.

Keywords: Learning Methods; Self Regulated; Writing

Introduction

In the educational environment, the implementation of cooperative learning is able to show enthusiasm, curiosity and involvement of learners (students) in accepting their learning assignments which are not only beneficial for them in the group but for the students themselves in the overall class (Shafiee & Khavaran, 2017). However, teachers still face difficulties in handling a variety of unexpected problems that arise in each group of students, as well as the need for a longer time in organizing learning. Other difficulties are also found in assessing the assignments of students considering they must be joined in one study group, so teachers need to make additional assessments of the progress of each student's learning and encourage them to take part in self-evaluation and reflection of their progress.

Difficulties or constraints that occur in the implementation of cooperative learning above can basically be overcome by choosing the right cooperative learning method, coincide with the student learning outcomes to be achieved. Among the various forms of cooperative learning that have been developed, the *Cooperative Integrated Reading and Composition (CIRC)* has a number of aspects and work steps that pay attention to activities as well as evaluation of each student's learning progress even though they are incorporated into a group. According to Slavin (1991), CIRC is a learning that activates students to learn together with the aim of ensuring all students are actively involved when learning takes place; students form groups that discuss each other and are responsible for each other to complete the

requested learning assignments. CIRC relies on students' reading skills in terms of vocabulary mastery and appropriate spelling to improve their writing skills.

Besides CIRC, there are other learning methods which according to some studies also highlight the relationship of reading and writing skills. *Picture-Word Inductive Model (PWIM)* is a basic learning model of vocabulary mastery which also highlights reading-writing skills. Calhoun (1999), PWIM is used by teachers to direct students in groups or individuals in activities to investigate words (which are presented in an image), add words in activities to read and write vocabulary, find phonetic forms and word structures, and make observations and analyzes in reading, writing, understanding, and composing writing.

Jiang and Perkins (2013) stated that there were no studies that revealed the effectiveness of PWIM specifically in improving language skills, especially vocabulary mastery, so researchers felt the need to investigate the implementation of PWIM in learning to find out how it affects the process of reading and writing students, certainly to improve their writing skills. From the above explanation, it is necessary to examine whether there are differences in text writing skills between groups of students who are taught by the *Cooperative Integrated Reading and Composition* and groups of students who are taught with *Picture-Word Inductive Models* and high and low *self-regulated learning* students.

Research Methods

The research approach used by researchers is a quantitative approach. Wherein the quantitative approach is research whose data is in the form of numbers and analyzed by statistical analysis to find answers from the problem formulation of a study. While the method used by researchers is the experimental method. There were 80 seventh grade learners of MTsN 1 Palangkaraya, Central Borneo, Indonesia, in 2018/2019 academic year involved in this study. They then were divided into two classes randomly sampled to be the experimental group and the control group. Learners included in the experimental group learned together in a team formation. Data analysis in this study was independent sample t test. This test was used to determine whether exist or not the average/mean difference between the two groups of unrelated samples. If there are differences, which average/mean is higher. Data used is usually interval or ratio scale.

Results and Discussion

Description of Research Result Data

Description of Pre-test Results of Student Writing Skills

The pre-test in the form of an essay test of writing skills was given before the treatment in both groups of students. In other words, both the *Cooperative Integrated Reading and Composition* (CIRC) and *Picture-Word Inductive Model* (PWIM) have not been implemented as learning methods for students in both groups. The results of the descriptive analysis between the CIRC and PWIW classes are shown in Table 1 below:

Table 1. Pre-test scores for Student Learning Outcomes Writing Skills based on the Implementation of Learning Methods

	Method	Mean	Std. Deviation	Std. Error Mean
Pretest	CIRC	68.5250	7.49354	1.18483
	PWINP	70.5250	10.69864	1.69160

Table 1. shows that students in the treatment/experimental class before the CIRC is implemented obtain an average score of pre-test results reaching 68.53 with a standard deviation of 7.49, while students

in the control class before the PWIM are implemented get an average of pre-test results reaching 70.525 with a standard deviation of 10.699. The results of the pre-test scores showed no difference in students' writing skills. But these results need to be tested by using statistical hypothesis testing to obtain valid conclusions. The results of the pre-test results above are then analyzed using the t test to get accurate information about how significant the writing skills of students are in the two classes. The results of the unpaired t-test analysis *(independent sample t test)* with the help of the SPSS program to test the difference in the results of the pre-test with the learning method are presented in Table 2. as follows:

Table 2. T Test Results for Pretest Value of Student Writing Skills

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Pretes	Equal variances assumed	1,931	,169	-,968	78	,336	-2,00000	2,06527	-6,11164	2,11164
	Equal variances not assumed			-,968	69,843	,336	-2,00000	2,06527	-6,11922	2,11922

Table 2. Test of *Independent Samples Test* obtained the value of *Sig Levene's Test* equal to 0,169, with a significance value greater than the standard error of 5% (*p*>0.05), so it was concluded that there was no difference in variance in the pre-test scores of English text writing skills between the two groups of students, so that it could be tested with an independent t-test assuming a homogeneous variance of data (*equal variance assumed*).

The next test uses an unpaired t test (*independent sampel t test*), examine whether there are differences in the value of the pretest of English text writing skills. Table 4.2, the results of the independent t test obtained a significance value of 0.336 (*p*>0.05, accepted H_0), which means that there is no significant difference in the pre-test scores of English text writing skills between groups of students in the treatment class before CIRC is implemented with groups of students in the control class before the PWIM is implemented.

Description of Student Learning Outcomes based on the Implementation of Learning Methods and Levels of Self-Regulated Learning

Student learning outcomes from the implementation of the *Cooperative Integrated Reading and Composition* (CIRC) and *Picture-Word Inductive Model* (PWIM) with different levels of *self-regulated learning* (high and low) were recapitulated to get an overview of the learning outcomes from the research subjects after receiving the treatment. Student learning outcomes based on the implementation of learning methods and the level of *self-regulated learning* are shown in Table 3.

Table 3. The Value of Student Learning Outcomes based on the Implementation of Learning Methods and Levels of Self-Regulated Learning

SRL	Learning Methods			
	CIRC		PWIM	
	Mean	Std. dev.	Mean	Std. dev.
Low	84.58	4.90	68.65	7.83
High	74.33	7.65	70.17	7.52

Source: Primary Data Processed, 2019

Table 3. The results of the descriptive analysis show that the students who are taught use the CIRC method with a low level of *self-regulated learning* obtaining the highest average score of 84.58 with a standard deviation of 4.90, while students with a high level *of self-regulated learning* obtain an average learning value of 74.33 with a standard deviation of 7.65. Students who study using the PWIM method with a low level of *self-regulated learning* obtain an average score reaching 68.65 with a standard deviation of 7.83, while students with a high level of *self-regulated learning* obtain an average learning value of 70.17 with a standard deviation of 7.52.

These results indicate a difference from the application of both learning methods and the level of *self-regulated learning* of students towards student learning outcomes. Descriptively, the highest student scores were found in students from the group learned through the CIRC method with a low level of *self-regulated learning*, while the lowest student scores were found in students from the group learned through the PWIM method with a low level of *self-regulated learning*. However, students who are taught through these two methods tend to have almost the same value at a high level of *self-regulated learning*. The values of student learning outcomes are then again analyzed to obtain accurate information about how significant students' writing skills are at the level of high and low *self-regulated learning* after the implementation of the CIRC and PWIM learning methods.

The results of the unpaired t-test analysis (*independent sample t test*) which examined the differences in the value of student learning outcomes based on the implementation of the two learning methods are presented in Table 4.

Table 4. T Test Results for Student Values with CIRC and PWIM Learning Methods

Group Statistics

	Method	N	Mean	Std. Deviation	Std. Error Mean
Results	CIRC	40	79.20	8.370	1.323
	PWIM	40	69.52	7.789	1.232

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
										95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Hasil	Equal variances assumed	,214	,645	5,352	78	,000	9,675	1,808	6,076	13,274
	Equal variances not assumed			5,352	77,599	,000	9,675	1,808	6,076	13,274

The results of the analysis in *Group Statistics* above show that there are 40 students in the class who implement CIRC has an average value of English writing skills equal to 79.20 while in the class implementing PWIM has an average value of English text writing skills equal to 69.53. As for the output table of Independent Samples Test obtained the value of Sig Levene's Test amounted to 0.645, the significance value is greater than 0.05, and it can be concluded that there are no variance differences in the value of English texts writing skills between groups of students with the CIRC and PWIM learning methods, so that it can be tested with an independent t-test assuming a homogeneous variance of data *(equal variance assumed)*.

In knowing the difference in learning outcomes, then conducted the test statistically using unpaired t-test *(independent sample t-test)*. Table 4 shows the results of the independent t test for the

value of English text writing skills between groups of students taught by the CIRC and PWIM methods having a significance value of 0.000 (*p*<0.05, accepted H₁), which means that there are significant differences in the value of English text writing skills between groups of students who are taught by both methods. Table 4.4 in the Group Statistics also shows that students taught with CIRC have better English text writing skills than students taught with PWIM.

Furthermore, the results of unpaired t-test analysis (*independent sample t test*) were conducted to test the differences in the value of student learning outcomes based on the level of *self-regulated learning* presented in Table 5.:

Table 5 T Test Results for Student Values based on the Self-Regulated Learning Level

Group Statistics

	SRL	N	Mean	Std. Deviation	Std. Error Mean
Hasil	Rendah	36	77,06	10,387	1,731
	Tinggi	44	72,16	7,953	1,199

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
										95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
Hasil	Equal variances assumed	3,272	,074	2,388	78	,019	4,896	2,051	,814	8,979	
	Equal variances not assumed			2,325	64,544	,023	4,896	2,106	,690	9,103	

Table 5. The results in *Group Statistics* show that 36 students with low *self-regulated learning* have an average value of text writing skills equal to 77.06, then high *self-regulated learning* has an average value of 72.16 for text writing skills. The test result of *Independent Samples Test* obtained the *Sig Levene's Test* value of 0.074, the significance value is greater than 0.05, it can be concluded that there is no difference in the variance of the value of text writing skills between groups of students with low and *high self-regulated learning*, so that it can be tested with an independent t-test assuming a homogeneous variance of data.

To find out the existence of these differences, a statistical test was performed using an unpaired t test (*independent sampel t test*). Table 5 shows the results of the independent t test for the value of English text writing skills between groups of students with different self-regulated learning obtained a significance value of 0.019 (*p*<0.05), which means that there are significant differences in the value of English text writing skills between groups of students with low and high *self-regulated learning*. Table 4.5 in *Group Statistics* above also shows that students with low *self-regulated learning* have better English text writing skills than students with *high self-regulated learning*.

Different Tests of Learning Methods on the Text Writing Skills for Students

The results of hypothesis testing indicate that there are significant differences in *Cooperative Integrated Reading and Composition* (CIRC) in the form of text writing skills and through implementing *Picture-Word Inductive Model* (PWIM). The CIRC learning method has an average value of English text writing skills equal to 79.20 while students in the group that implements PWIM produce an average value

of text writing skills amounted to 69.53. The differences in text writing skills between groups of students with the CIRC and PWIM learning methods indicate that the skills of writing texts between groups of students are influenced by the learning methods implemented. These findings indicate that CIRC is better than PWIM.

The results of this study are in line with Purwanti (2010) who suggested that the CIRC method can improve student learning activities. The increase in student learning activities is characterized by the achievement of the average percentage of the student's final learning ability test score result of more than 60%. According to her, learning activities with methods that combine the ability to read and write make students become more interested in participating in learning so that they feel truly involved in the learning activities that have been discussed.

The results of this study are also supported by Wiranata's statement (2014) who states that the use of CIRC has a better influence on students' narrative essay writing abilities. This is because CIRC can encourage students to respond freely, cooperate and respect the opinions of others and create a cooperative learning atmosphere among fellow students and teachers so that it motivates students to interact and explore the topics of learning that exist, help each other, discuss and argue in expressing the idea.

Referring to the findings of this study and the support of previous research, it is expected that the mastery of students' English writing skills using the *Cooperative Integrated Reading and Composition* (CIRC) method is more improved, but does not rule out the possibility of implementing other methods so students are interested in learning in the classroom with happy and comfortable feelings. The existence of effectiveness in learning is important, in order to develop the knowledge of students and the achievement of learning outcomes.

Discussion

Implementation of Learning Methods and Levels of Self-Regulated Learning Students on Student Learning Outcomes

The results of hypothesis testing indicate that there are significant differences in *Cooperative Integrated Reading and Composition* (CIRC) in the form of text writing skills and through implementing *Picture-Word Inductive Model* (PWIM). The CIRC learning method has an average value of English text writing skills equal to 79.20 while students in the group that implements PWIM produce an average value of text writing skills amounted to 69.53. The differences in text writing skills between groups of students with the CIRC and PWIM learning methods indicate that the skills of writing texts between groups of students are influenced by the learning methods implemented. These findings indicate that CIRC is better than PWIM.

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Language learning with CIRC is able to provide significant writing learning outcomes (Slavin, et al. 1988; Durukan, 2011; Hadiwinarto & Novianti, 2015; Gupta & Ahuja, 2015; Varişoğlu, 2016), simultaneously encouraging cooperative learning for students in order to optimize their literacy skills.

Furthermore, the implementation of CIRC according to Varişoğlu (2016) can also answer the problems that usually occur in traditional language teaching, such as the loss of students' interest in learning when teachers only pay attention to one student, which in turn decreases learning productivity. This is because CIRC provides a variety of activities that keep asking students to be active during learning (especially in the form of teams) and each student will have the opportunity to interact directly with the teacher in turns. n addition to being able to improve language skills, especially writing, all activities covered by CIRC are able to reflect attitudes and behaviors in cooperative learning that are very effective for students.

Through this CIRC, it can be seen that reading learning has relevance to writing learning, which according to Tuan (2012) both have reciprocal relationships that benefit one another. This is caused by the role of reading skills that can build a variety of knowledge and understanding to be written or in other words, become the basis of a writing, while writing can strengthen the knowledge of what is read. The advantage of the integration of reading and writing according to Chunhong Yang (2014) can be seen from the influence of reading skills that support students' writing skills; through reading, ideas on a particular topic will be more easily obtained and the idea becomes a source for developing a writing.

Referring to the findings of this study and the support of previous research, it is expected that the mastery of students' English writing skills using the *Cooperative Integrated Reading and Composition* (CIRC) method is more improved, but does not rule out the possibility of implementing other methods so students are interested in learning in the classroom with happy and comfortable feelings. The existence of effectiveness in learning is important, in order to develop the knowledge of students and the achievement of learning outcomes.

The results of the study showed significant differences in the value of English text writing skills between groups of students with low and high *self-regulated learning*. Table 4.5 in Group Statistics above also shown that students with low *self-regulated learning* have better English text writing skills than students with high *self-regulated learning*.

Zimmerman (2008) explained that in writing activities, *self-regulated learning* acts as a process of instruction and self-confidence that makes it easier for students to change their mental abilities, such as verbal skills, to become academic performance abilities. This also shows that students use proactive processes in improving their academic achievement. Proactive words are chosen, compared to the word reactive, to interpret the processes that students use in mastering academic abilities such as learning goals, selection and utilization of learning strategies, and self-monitoring of the effectiveness of their learning. In other words, student activity arises from itself. While reactive tends to describe the active attitude that arises not because of self-will but the influence/pressure of others.

As is known, writing does require a high level of self-regulation, related to planning, revision and use of strategies in writing (Graham et al. 2000). This is based on the explanation above which shows that self-regulated learning has an influence on academic ability, in this case writing skills, where students will consciously and responsibly activate themselves in order to achieve the mastery target (academic) that has been determined.

Conclusion

There are differences in English text writing skills between students who are taught through the CIRC method and students who are taught through the PWIM method. This shows that students' text writing skills are correctly influenced by the learning method implemented, where the CIRC method is better than PWIM in improving the writing skills. The research findings showed a significant difference in the value of English text writing skills between groups of students with low and high *self-regulated learning*. Wherein shown that students with low *self-regulated learning* have better English text writing skills than students with high *self-regulated learning*.

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