

## The effect reciprocal teaching strategy of critical thinking skills in learning thematic class V

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### Abstract

The purpose of this study was to investigate: the effect of reciprocal teaching strategies on the critical thinking skills of learners. This research is a quasi experimental type research. The population is all students in SD Nanggalo Tarusan Pesisir Selatan and the samples are students of VA and VB class as many as 50 people. This sampling technique is purposive sampling. Data from the research results obtained from critical thinking skills tests. The results showed that the critical thinking skills of learners who were given a reciprocal teaching strategy were higher than conventional learning.

**Keywords:** reciprocal teaching, critical thinking skill, thematic



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## Introduction

Thematic learning (integrated learning) is a learning that aims to prepare Indonesia people to have the ability to live as individuals and citizens who are faithful, productive, creative, innovative, and affective and able to contribute to the life of society, nation, state, and civilization world. Basically integrated thematic learning gives renewal in the world of basic education (Sufairroh 2016: 117). This renewal is evident from the exchange of curriculum in Indonesia that emphasizes that learners are able to understand better learning (Fitria 2017: 30). Conditions should be thematic learning that its implementation is no longer fragmented but rather into a single unit (holistic) and integralistic. Tyler (in Jacobs 1989: 25) has suggested that discrete learning is more integrated, because if experiences are not linked, learners will develop learning activities that are unrelated to each other and ineffective in the face of everyday life. In thematic learning, learners gain hands-on experience and are trained to find their own knowledge that is learned holistically, meaningfully, authentically and actively as well as helping the learners' efforts to gain critical thinking of learners. According to Roghes that the basic things that become the criteria associated with integrated teaching among others; teaching includes educational objectives in which learners actively participate in the learning process, teaching begins with a theme relevant to the learner's life, learners engage in active learning and thinking processes, and teaching-learning processes are centered on learners (Fitria 2014: 84 ). But in reality, these expectations have not been realized to the fullest. Teachers are still dominant using conventional learning without enabling learners so that learning is still less meaningful for learners. Such learning is characterized by a dominant role in teachers, learners

are seen as objects and learning is interpreted as a transfer of knowledge. The learning strategy they have been accepting is the protrusion of the pontificate of many subjects, but not followed by a deep understanding or understanding that can be applied when dealing with new situations in life (Muslich, 2007: 40). While Labude discusses several reasons for the importance of interdisciplinary or integrated development in thematic learning (integrated learning / integrated learning), namely: 1) there is a comprehensive process of saitif, 2) as the main key in solving various problems of human life so that learners can think more critical of a problems, 3) schools as a container to explore learners' learning experiences and train students' thinking skills, 4) improve disciplinary competence (Fitria 2014: 83-82).

Critical thinking is reasonable, reflective thinking that is focused on deciding what to believe or do (Ennis, 2011). According to this definition, critical thinking emphasizes on thinking that is reasonable and reflective. Critical thinking is to think of solving problems with critical traits and talents: curiosity, risk-taking, and always respecting the rights of others and training high-level thinking (Zubaidah, 2007). High-level thinking can be obtained from basic level thinking activities. Thinking the basic level is (lower order thinking) using only limited ability to routine things and is mechanical. Thinking higher order (higher order thinking) allows learners to interpret, analyze or even be able to manipulate previous information so it is not monotonous. Critical thinking is the process of seeking, obtaining, evaluating, analyzing, balancing, and conceptualizing information as a guide for developing one's thinking with self-awareness and the ability to use information by adding creativity and taking risks (Yildirim and Ozkahraman, 2011). Teachers are expected to be able to plan the learning in such a way that learners are interested to learn so that learners are able to think critically during the learning process. Teachers are the main factors determining the success of educational programs, especially at the level of basic education. The primary school system as a benchmark for the development of potential learners should be responsible for realizing the lifelong generation of learners (Fitria 2016: 1713). The fact that learners are less able to identify the arguments. Learners lack direct experience in a real as a basic understanding of the abstract so that learners are less able to identify which logic is wrong. Learners in the discussion of group discussions are less able to distinguish which information, opinions, and assumptions. In accordance with this statement that students' critical thinking skills that have not been well developed one of them caused by learning in schools that do not empower students' critical thinking skills.

The Reciprocal Teaching (RT) strategy as an alternative to teaching option is one of the teaching procedures designed to teach cognitive strategies among students in understanding the subject matter based on the constructivism approach (Palincsar, 2002: 5). The syntax of Reciprocal Teaching strategy can train critical thinking skills because it can improve students' ability and desire to read. This fact is corroborated by Hacker & Tanen (2002) research, reciprocal teaching is an instructional method in which small groups of students learn to comprehend through scaffolds. Reciprocal teaching is a scaffolding discussion method based on reading comprehension, scaffolding and modeling strategies, and social interaction. Reciprocal teaching develops reading comprehension and helps the reader to become better at reading and becoming an independent reader (Ahmadi and Gilakjani, 2012).

Based on the description that has been described, the strategy Reciprocal Teaching (RT) is a learning strategy that feels appropriate to empower students' critical thinking skills. This is because in its application, each of the Reciprocal Teaching (RT) strategy syntax supports and complement each other in empowering students' critical thinking skills. Based on the description, it is necessary to conduct a study that examines the influence of Reciprocal Teaching (RT) strategy on students' critical thinking skills. Teachers can use this strategy as for students on reading activities to improve deeper understanding (Stricklin, 2012). Reciprocal

Teaching is active, not passive, requires students to give, and receive as they help each other in the effort to gain knowledge and understanding, students make questions, answer, explain, and keep repeating ideas and accept the reinforcement of learning concepts (Barkley et al. 2016: 200). The RT strategy encourages students to take a more active role in leading group dialogue, and helps to bring more meaning to the text on a personal and cognitive level (Choo, 2011: 140).

This research may be a consideration of the use of reciprocal teaching strategies for other subjects or subjects as well as the need to review the initial knowledge of learners so as not to be considered the same for all conditions. This study is also expected to be used as a variety of learning strategies for teachers to empower students' critical thinking skills in learning

## Method

The type of research used in this study is a quasi experiment that aims to investigate the influence of reciprocal teaching strategies. This research was conducted at SDN 04 Nanggalo Pesisir Selatan in the odd semester of academic year 2017/2018 which took place the second week of October until early November 2017. The population of this research is all students in SDN 04 Nanggalo Pesisir Selatan school while the sample of this research is the students of grade V with took a sample of two classes of 50 people consisting of 25 students in the VA class as an experimental class and 25 students in the VB class as a control class. Sampling with total sampling as having a member or a homogeneous element. Independent variable in this research is reciprocal teaching and direct learning, while the dependent variable is critical thinking ability. The research design used in this research is 2x2 factorial pretest posttest control design. The instrument used to obtain data in this study is a critical thinking skill test in integrated thematic learning. Instruments were assessed by competent validators that included lecturers and teachers at the school and were tested against responders outside the sample class.

## Results and Discussion

This study focused on scoring average scores. The following data presented test results:

**Table 1. Testing of Homogeneity Class of Experiment and Control**

Kelompok Kelas	N	S <sup>2</sup>	F <sub>h</sub>	F <sub>t</sub> (α = 0,05)	Keterangan
<b>Eksperimen</b>	25	162,91	1,106	1,711	Homogen
<b>Kontrol</b>	25	147,25			

**Table 2. Testing of Experiment Class Normality and Control**

Kelompok kelas	N	L <sub>o</sub>	L <sub>t</sub>	Kesimpulan
<b>Eksperiman</b>	25	0,1715	0,173	Normal
<b>Kontrol</b>	25	0,1334	0,173	Normal

From table 1 and 2 both data are homogeneous and normal, it is said to be homogeneous because Fcount < F table (1,106 < 1,711) and normal data in experiment class because Lobservasi < L table (0,1715 < 0,173) while in control class there is Lobservasi data < L table (0.1334 < 0.173).

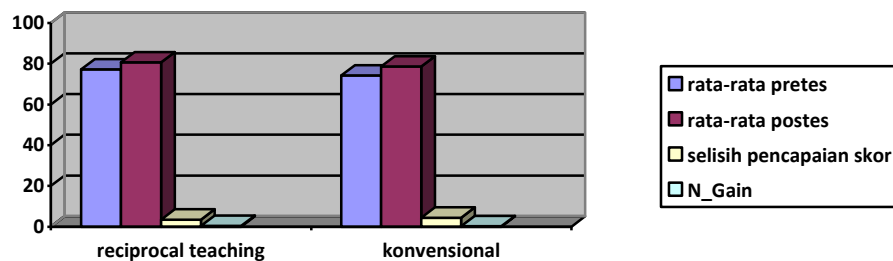
As for the results of pretest and posttest learners are analyzed based on their respective abilities, the outline obtained the picture as in the following table:

**Table 3. Critical Thinking Capabilities of Experiment Classroom Students**

Kelas Kelompok Penelitian	Kelompok Rata-rata Pretes ( $\bar{x}_1$ )		Kelompok Rata-rata Posttes ( $\bar{x}_2$ )		Selisih pencapaian skor ( $\bar{x}_2 - \bar{x}_1$ )		N_Gain	
	Tinggi	Rendah	Tinggi	Rendah	Tinggi	Rendah	Tinggi	Rendah
<b>Eksperimen</b>	88,07	66,25	90	73,33	1,93	7,08	0,42	0,11
<b>Kontrol</b>	84,58	64,61	89,16	67,69	4,58	3,35	0,38	0,06

From table 3 it can be seen in the experimental group of students high ability group of pretest average score 88,07 and average score of posttest 90, the ability of learners in high group become higher again with difference of score achievement 1,93 and N\_Gain 0,42. In the low-ability group of learners, the result of pretest score 66,25 and posttest result 73,33, students ability increase from low to high with difference of score achievement of 7.08 and N\_Gain 0,11. It is seen that the improvement of students 'critical thinking ability for the experimental group is not evenly distributed, even for the higher learners' ability in the experimental group is greater the mean difference than the low ability of the learners.

In the control group of students' high ability group, the average pretest score of 84.58 and the mean score of posttest 89.16, the ability of the learners in the high group to be even higher by the difference in achievement score of 4.58 and N\_Gain 0.38. In the low-ability group of learners, the results of pretest score of 64.61 and posttest result of 67,69, students' ability increased from low to high with difference of achievement score 3,35 and N\_Gain 0,06. Seen in the control group the greatest average difference in high ability and critical thinking ability in this group is uneven. Increased critical thinking skills for the experimental group were larger than the control group, but if t test continued there was no significant difference between the experimental class and the control class. In pretest obtained test of  $t_{th} < t_{tt}$  that is 0,619 < 1,645 while for posttest t test obtained  $t_{th} < t_{tt}$  that is 0,117 < 1,645 this mean  $H_0$  refused and  $H_a$  accepted. As for the critical thinking skills of learners as a whole can be seen in the data graph of critical thinking skills of learners in the experimental class and control class as follows:



Grafik 1. Pretest Average Score, Posttest Average Score, Score Scores, And N\_Gain Critical Thinking Skills Of The Experiment And Control Classes.

The critical thinking skills of learners who are taught with reciprocal teaching are higher than students taught by conventional learning. This fact is supported by Sholihah's research

(2016: 283) in his journal also shows the existence of differences in critical thinking skills between students who are taught by RT and conventional learning based on a scientific approach. RT learning strategies can improve students' critical thinking skills higher than conventional learning.

Social interactions that occur in the group can improve the thinking skills of children because children who feel less intelligent will be helpful and children who feel clever will try to explain to a less clever friend so that his understanding becomes more profound. This opinion is also supported by Green (Corebima, 2008) which states that in cooperative learning there is a learning process that allows students in their group to evaluate the work of each member of the group, improve social interaction, as well as efforts to improve the performance of each group. One of the most influential factors to the critical thinking skills of learners is the learning strategy of reciprocal teaching. The reciprocal teaching strategy is carried out in five stages. In stage 1 the teacher convey the material and learners pay attention to the teacher. At this stage, participants are trained to concentrate. The two learners are divided into four heterogeneous groups and the teacher distributes the reading as well as the LDK and asks each group to understand the material. The three learners are asked to deliver the material that has been understood alternately on the representatives of each group. Fourth during the role change process the teacher shifts the role of being a facilitator, moderator, coach, motivating, and providing support. The fifth at the end of the teacher's lesson will give reinforcement so that children are not mistaken perception. This is inversely proportional to the conventional learning where the teacher gives directly menyampaikan material from the beginning of learning until the end of the lesson. Based on the above description of these two lessons there is a difference in the process of knowledge formation by teachers. This difference is considered to support the results of research showing that reciprocal teaching strategies are effective for critical thinking skills of learners rather than conventional learning.

Both classes were given tests in the form of critical thinking skills tests. In this activity, learners get the opportunity to empower their thinking ability. According Susanto (2013: 121) critical thinking skills is an activity of thinking about ideas or ideas related to the concept given or the problems presented. Critical thinking is also understood as the activity of analyzing ideas or ideas in a more specific way, distinguishing them sharply, choosing, identifying, studying, and developing them in a more perfect direction. Cognitive-based skills of understanding involve high-order thinking skills, such as problem solving, critical thinking, creative, and decision-making (Berns & Erickson, 2001). Thus, learning for understanding is synonymous with the learning of thinking skills one of which is the critical thinking ability of the students.

## **Conclusion**

Critical thinking skills of learners who gain learning strategy Reciprocal Teaching (RT) is higher than critical thinking skills learners gain conventional learning in integrated thematic learning in class V, so Reciprocal Teaching strategy can improve critical thinking skills of elementary school students.

## Acknowledgments

For teachers to use reciprocal teaching strategy in integrated thematic learning process in SD, because the implementation of reciprocal teaching strategy can improve students' critical thinking skill.

This study only examines the initial knowledge and critical thinking skills. For that, it is suggested to further researchers to examine other aspects, such as creativity, intelligence and others.

For other interested researchers expected to conduct further research that would like to conduct similar research should examine aspects of high-level thinking skills and other affective aspects and conduct research at the school level and materials that have not been reached by current researchers and should further researchers be able to design materials teach and research instruments are much better again.

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