Effect of Methods of Learning and Self Regulated Learning toward Outcomes of Learning Social Studies

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Abstract

This research aims to reveal the influence of learning methods and self-regulated learning on students learning scores for Social Studies object. The research was done in Islamic Junior High School (MTs Manba'ul Ulum), Batuceper City Tangerang using quasi-experimental method. The research employed simple random technique to 28 students. Data were analyzed using Analysis of Variance (ANOVA) and two-way design with treatment by level 2 x 2. The findings of the research showed that: (1) Social Studies scores of students that were given learning method peer tutoring is higher than the scores of those that were given the conventional method (2) there is an interaction effect between self-regulated learning and peer tutoring learning method on Social Studies scores of students, and (3) for students with high self-regulated learning, Social Studies scores which were given using peer tutoring is higher than those given using conventional learning. Therefore the next research is expected to find appropriate learning method for students with low self-regulated learning.

Keywords: methods of learning, self-regulated learning, learning outcomes of Social Studies

1. Introduction

Science and technology have developed very rapidly that caused great changes in various aspects of human life with a complexity that increasingly rising. The development of science and technology not only has an impact on the ease of access to the fulfillment of human life, but also brings a shift in cultural values. Information spreads very quickly, bureaucratic organization changes to the network organization that operates beyond the limits of the state and region. On the other hand, the changes of affect and change the existing rules, ways of work that should be done, the skills, the order of the territorial state, international relationship, interregion relationship, and patterns of interhuman interaction.

Along with the changes, it is necessary to develop quality of education services in schools. So far our education is still dominated by the view that the knowledge obtained by the students as the facts to be stored in students' mind. Class is still focused on the teacher as the main source of knowledge, and lecture is the main method employed by teachers. Along with the changes, it is needed a new learning strategy and method which empowers students, a method of learning that encourages students to be more dynamic, active, and creative in finding, organizing, and communicating the learning achievement. By apllying this model, we bring students to the process of implementing the concept and reality, so that they can easily remember the concept of acquired for subsequently applied.

The new paradigm in learning will enable students to find and reassembling their own knowledge. Interestingly, the new paradigm views that the success of learning is not a result of an individual work, but rather the result of cooperative work, enabling them to have mutual interaction. Cooperative learning will be more effective if each individual is placed in group in accordance with his/her potential. This will increase his/her role, contribution, and participation in group. Preliminary study conducted by the researcher at MTs Manba'ul Ulum, Batuceper Tangerang City on VII grade showed that the lowest scores is in social studies. This is seen in the mean score social studies is 70 while other subjects are above 70. In addition, among the four classes (VIIA, VIIB, VIIC, VIID), VIID class got the lowest mean score. Students mean score for basic competence (KD 1.1) under Minimum Completeness Criterium (KKM 70) is 67. Of the 30 students, 14 students have met the KKM while 16 other students are below the KKM. After investigation, it is known that student's learning motivation is very low, this is because during learning activities, students only receive the material in one direction of teachers so that students feel reluctant to ask, embarrassed and saturated. Moreover, relationships between friends are less harmonious, because the VII grade is the transition between elementary school with junior high school, which causes several students are difficult to adapt. Some students are easy to make friends, otherwise; some others are difficult. If this is allowed then it would worsen the atmosphere in the classroom and the students themselves: the student will feel shunned, depressed, tensed, ignored, or even neglected, whereas the need for friendship increases as the age increases. This is in line to the Sullivan's opinion as quoted in Santrock (2007) that the need for proximity increases in early adolescence and it encourages the youth to seek close friends.

Buhrmester as quoted in Santrock (2007) also revealed that teens with friends who are not so close or no close friends at all, feel more lonely, more depressed and tensed, and they have lower self-esteem. To reduce the negative effects, it is necessary to do a new breakthrough in the classroom learning system. Teacher as a facilitator should be able to direct students to more easily find friends, reduce tension between students and

create conditions conducive to the students in adapting. For that reason, the researcher conduct research on method of active and fun learning, which makes students easy to make friends. This method is named peer tutoring learning. The researcher is motivated to conduct this research when the principal of Islamic Junior High School (MTsN) Man'baul Ulum in pre observation stated that he wished there is a research on teaching method that can increase student's learning outcomes and foster a sense of community among students. Such learning method is called peer tutoring.

Peer tutoring learning is a learning in which students teach the other students. Peer tutoring learning allows students to improve their achievement. This is consistent with the statement of Johnson and Ward as quoted in Santrock (2003) that in peer tutoring students teach the other students, peer who teach usually are classmates. Peer tutoring allows students to improve their achievement. Peer tutoring is a student-centered learning as Djamarah and Zain (2002) state that peer tutoring learning focused on the students, in this case the students learn from the other students who have the age and maturity that is not much different, so that they do not feel so compelled to accept the idea and attitude of the 'teacher' who is none other than their own peers.

Peer tutoring method should be applied as a method of learning in which there is no competition between students and groups, the students work together to solve the problem of handling different ways of thinking. Another reason necessary for the implementation of this learning method is the fact that this method is able to create a psychological space that is comfortable for every member in it. Assistance provided peers in general seem closer than the relationship between students and teachers. According to Boud, Cohen, and Sampson's as cited in Mulyatiningsih (2012), when peer tutoring becomes the part of the learning process in schools, students who become the teachers can show a variety of roles such as a pure teacher, a mediator, a work partner, a coach, or a role model. This suggests that in peer tutoring the students serve as teacher assisstant, it means that besides teaching their own friends, they also receive administrative tasks such as checking whether the task is complete, task of what is still lacking, prepare a job sheet, and others. Besides, the benefit of peer tutoring is that students are taught to be independent, mature, and have a high sense of solidarity. This is in accordance with the concept and theme of Social Studies that human is a social being (Homo Socius).

Besides the application of peer tutoring learning, it is necessary to consider individual differences among students. Each student has a different one with the other, which can be psychologically difference is inborn or notching environment. This differences affect the students' speed in mastering the lesson, so that students can determine how much or how long they learn, their motivation and interest in learning, and their attitude and aptitude. These individual differences need to be considered to improve student learning achievement.

One other individual difference which affect students' success is the ability to manage themselves. The ability to manage themselves according to Bandura as cited in Alwisol (2010) is known as self-regulation or self-regulated learning. Students with self-regulation ability know when and how students protect themselves from distractions that disrupt the learning process. Students with good self-regulated learning, know how to handle themselves when they feel sleepy and lazy. This is in line with the statement of Corno, Snow & Jackson as quoted in Woolfolk (2007) that students who have good self-regulated learning, know how to protect themselves from interference that can disrupt the learning process.

Self-regulated learning consists of high self-regulated learning and low self-regulated learning. Students with high self-regulated learning are capable of: repeating the subject matter and writing notes, actively attending classes, building internal relations of things to be learned, using information from a variety of sources to understand the material, classifying, selecting the main idea of the subject matter, arranging and paying attention to the title, diagrams, tables, pictures and graphs to understand the material, always keen on new things and thought of the possible alternatives, developing ideas that are owned, developing strategies and plans in the learning process, controlling and evaluating the learning process has been run, creating a schedule time to learn, arranging a special place for learning, commitment to completing tasks, exchanging ideas and information with friends, collaborating with friends in completing tasks and seeking assistance both to friends and teachers.
Students with low self-regulated learning are ones who rarely do exercise, less elaborating, less organize lessons, less critical, less able to regulate themselves metacognitively, less able to manage time and learning environment, have poor business arrangements, lack of initiative to learn with friends, and less seek help to both friends and teachers when having trouble in a particular subject.

2. Research Methodology
The research was conducted at Islamic Junior High School (MTs) Manba'ul Ulum, Batuceper Tangerang City. The research took place from September 1 until 30 November 2014. The method used in this study was quasi-experimental methods. The dependent variable is the students Social Studies Scores. The treatment variable is learning methods which consists of peer tutoring method (A1) and the conventional method (A2), while the moderator variable is self-regulated learning, which consists of high (B1) and a low profile (B2).

Table 1. *Treatment by Level Design*

Self-regulated Learning	Learning Method (A)	
	Pee Tutor (A1)	Conventional Method (A2)
High (B1)	A1B1	A2B1
Low (B2)	A1B2	A2B2

The design used in this research is treatment by level design, namely:

Sampling technique used was simple random sampling (Kerlinger, 1986). Sample in this study consisted of two classes, by taking 27% of students with high self-regulated learning and 27% of students with low self-regulated learning. Instruments used in this study were: (1) instrument for achievement test for Social Studies was multiple choice test, (2) instrument for self-regulated learning was questionnaire in form of scale. Reliability coefficient of interrater achievement is 0,72 and instrument reliability is 0.89. Reliability coefficient of interrater self regulated learning is 0,88 and instrument reliability is 0.83.

Data analysis technique used to test the research hypothesis was two-way ANOVA and simple effect testing with LSD test (Scheffe, 1964). Normality test was done using Liliefors test and variance homogenity test using Bartlett's test (Kiess, 1989).

3. Findings and Discussion

3.1 Data Description

Table 1 shows that the relationship between mean, median and mode of scores of students who were given peer tutoring (A1), with high self-regulated learning (A1B1), peer tutoring learning with low self-regulated learning (A1B2), conventional method with high self-regulated learning (A2B1), conventional method with low self-regulated learning (A2B2) is mode> median> mean, therefore score distribution of learning scores for Social Studies of groups (A1), (A1B2), (A2B1), (A2B2) tend to be skewed to the left or to form a negative curve. This means that most of the scores in the groups (A1), (A2), (A1B2), (A2B1), (A2B2) are above the mean score.

On the other hand, assessment scores for conventional method (A2) and groups (A1B1) scores are in the normal distribution.

Table 1. *The central tendency*

No	Group	Mode (Mo)	Median (Me)	Mean (M)	Relationship Mo,Me, and M
1	A1	22.5	21	20.5	Mo> Me> M
2	A2	18.86	18.25	18.20	Mo> Me> M
3	A1B1	21.90	21.83	21.80	Mo> Me> M
4	A1B2	23.25	19.50	19.20	Mo> Me> M
5	A2B1	18.17	16.50	16.10	Mo> Me> M
6	A2B2	23.7	21	20.30	Mo> M> Me

3.2 Research Findings

Calculation result with two-way ANOVA on students scores for Social Studies are presented in Table 2 below:

Table 2. *Results Calculations with Two-way ANOVA*

Variance Source	JK	Db	RJK	F count	F table $\alpha = 0.0$
Inter A	52.90	1	52.90	4.16 *	4.113
Inter B	6.40	1	6.40	0,50ns	
Interaction AB	115.60	1	115.60	9.08 **	
In (D)	458.20	36	12.73		
Total (T)	633.10	39			

3.2.1 Students Social Studies Scores with Peer Tutor Method (A) Treatment and Conventional Method (B) Treatment

Based on the table 2, the score gotten is F count = 4,16, while the F table score at significance level $\alpha = 0.05$ is 4.11. So F count score > F table, thus H0 is rejected. This means that there are differences in the students mean scores with peer tutoring treatment and conventional method treatment. Students' mean ($\bar{X}$) score with peer tutor method is 21.80; it is higher than their mean scores with conventional method, 18.20. It can be concluded that the students score is higher with peer tutoring treatment than with conventional method.

3.2.2 Interaction Between Learning Method (A) and Self-Regulated Learning (B) on Students Social Studies
     Scores

Based on the table 2, the F count score = 9.08, while the F table score at significance level α = 0.05 is 4.11. F
count score > F table score, this means that H0 is rejected. It can be concluded that there are intermethod
interaction influence and self-regulated learning on students score.

Form of interaction between learning method and self-regulated learning on students scores can be seen in
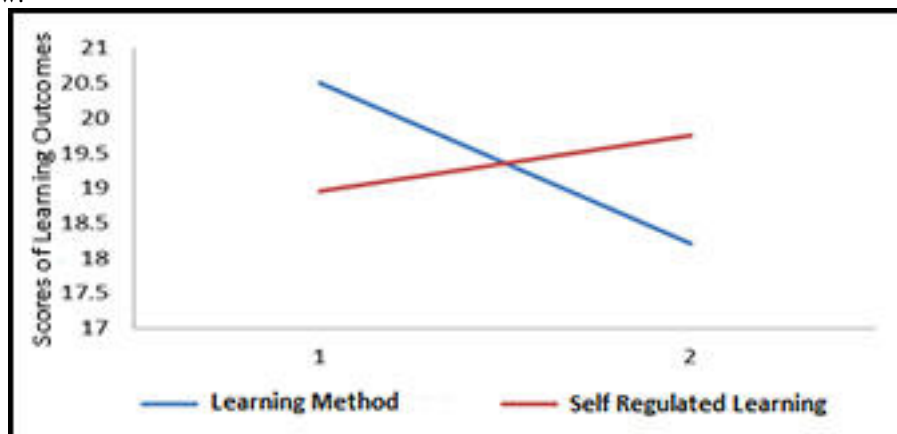Figure 1 below:

Figure 1. *Graph of interaction of Learning Method with Self-Regulated Learning on Students Social Studies
          Scores*

Figure 1 shows two intersecting lines which indicate that there is interaction between the two independent
variables: learning method with self-regulated learning on students Social Studies scores. This interaction is
interpreted as the effect of learning methods with self-regulated learning on students Social Studies scores. As
the result of the interaction between learning method with self-regulated learning on students Social Studies
scores, then LSD test is done to determine differences in the simple effect A at level B1 and B2.

3.2.3 The Differences of Learning Achievement between Peer Tutor Learning Method (A1) and Conventional
     Method (A2) in a Group of Students with High Self-Regulated Learning (B2)

The results of data analysis using LSD shows that the use of peer tutoring learning and conventional methods in
a group of students with high self-regulated learning at significance level α = 0.05, giving score Flsd = 5.70
greater than Flsd (Ft) = 2, 86, therefore H0 is rejected.

The mean score ($\bar{X}$) indicates that the Social Studies scores of students with high self-regulated learning and use
peer tutoring is higher than the score of students that use conventional learning method (21.80> 16.10), which
means that group A1B1> A2B1 group, and the difference is significant. It can be concluded that in group of
students with high self-regulated learning, the achievement of students who use peer tutoring is higher than that
of students use conventional teaching method.

3.2.4   The Differences of Learning Achievement between Peer Tutoring Learning Method (A1) and
     Conventional Method (A2) in Students with Low Self-Regulated Learning (B2)

The results of data analysis using LSD shows that students who use peer tutoring methods and conventional
learning with low self-regulated learning at significance level α = 0.05, giving score Flsd = 1.10 smaller than.
Tlsd (Ft) = 2,86, therefore H0 is accepted.

The mean score ($\bar{X}$) shows that the Social Studies scores of students with low self-regulated learning and use
peer tutoring is lower than the score of students that use conventional learning methods (19.20 <20.30), which
means the group A1B2 <group A2B2, and the difference is not significant. It can be concluded that in group of
students with low self-regulated learning, the scores of students who use peer tutoring is not higher than that of
students use conventional teaching method.

3.3 Discussion

The first hypothesis testing result proves that students achievement for Social Studies in both treatments have
significant differences. Peer tutoring learning method is more effective than conventional teaching method, and
the result of the study also showed that there is an interaction between learning method and self-regulated
learning on students achievement. This is in line with the statement of Slavin (2012) that private teaching peers
among the students of the same age can be more easily planned and also has proven to be very effective.
Selection of peer tutoring learning method as a learning strategy will greatly assist students in teaching the
material to their friends. Also, according to Bandura as quoted in Alwisol (2010) when a person learns with the

environment, there will be a power to affect each other in changing behavior. Thus, students will have the ability to adapt and convey their knowledge and social intelligence better.

Peer tutoring learning will result in the effective learning because the process of "finding" of knowledge and other important dimensions. Learning by discoverying will emphasize the importance of students (student centered) which will encourage students to be active and creative. Students can connect ideas, facts and techniques into a pattern that is easier to understand. In contrast to the use of conventional learning method, teacher is the learning center (teacher centered). Students take notes, ask questions, and teachers answer; and class ends with exercises as feedback. The teachers use learning approach directly (direct instruction). This approach has implications for the students who tend to spend most of the time listening to the explanation directly from the teacher.

Results of testing the second hypothesis shows that the learning method gives different effect on the students achievement when applied to students who have different self-regulated learning. The application of learning methods are intended to improve Social Studies achievement. Learning methods and self-regulated learning are effective at different levels. At students with high self-regulated learning, peer tutoring is more effective than conventional learning, otherwise at the students with low self-regulated learning, conventional teaching method is more effective than peer tutoring.

Students with high self-regulated learning consider learning as an activity that must be programmed properly. Each obstacle is regarded as a challenge to look for ways to solve. Such students evaluate each learning activity, as well as find the factors that can support the learning achievement. These conditions make the students discover, organize, and develop their abilities. For this students, the best way to learn something in depth is to teach it to others.

Unlike the students with low self-regulated learning, peer tutoring learning method becomes barriers to learning and completing tasks, because students tend to get used to spending most of the time listening to the explanation directly from the teacher. This led to the low power of creativity and the students become less active, therefore, it necessary to have learning methods that do not create new problems for students psychologically. The right method is the method of peer tutoring, with peer tutoring learning students feel comfortable to ask questions, and dig their ability to make learning becomes more meaningful.

The third hypothesis testing result shows that in group of students with high self-regulated learning, it is more effective to use peer tutoring than conventional learning method. Students with high self-regulated learning, will assume Social Studies as an interesting subject, so that students have the initiative in managing personal learning activities, evaluate weaknesses and strengths with respect to the task of learning, including do good learning activities.

In contrast to conventional teaching method, students regard peer tutoring as a burden, because they have to adapt to the teachers who are not their own teachers, but with his friends. Besides, control of shame, pride, inferiority makes learning peer tutoring students psychologically stressfull. Repeatedly explanations from peers resulted in increased anxiety, then it will affect the students learning achievement. This is consistent with the finding of Agustiar and Asmi (2010), that students with high anxiety levels would have a negative impact that can interfere with physical and mental activity and impact on student learning achievement.

The fourth hypothesis testing result shows that in students with low self-regulated learning, learning score of group of students who use conventional teaching is higher than the one who uses peer tutoring learning method. The learning score of group of students with low self-regulated and uses peer tutoring learning is not statistically acceptable. However, the mean score indicates that the results of the learning achievement of students with low self-regulated learning and uses peer tutoring method is 19.20 and the standard deviation is 4.69, it is lower than the group of students who use conventional learning at 20.30, and the standard deviation at 3.80.

The mean difference of the two groups is significant, it was found that the students with low self-regulated learning do not have personal initiative to perform learning activities or complete learning tasks. This implies to the unsatisfied Social Studies achievement. Learning process requires a number of capabilities such as good analytical, and deep and systematic thinking. This learning method makes students become inactive in mastering material, so that the critical and analysis power is not well developed. From this study, it was found that peer tutoring learning method is more effective to measure Social Studies achievement of students with high self-regulated learning, but for a group of students with low self-regulated learning, it is not significantly shown and need to do further research.

4. Conclusion

The conclusion of this study is (1) peer tutoring learning has an influence on the Social Studies achievement compared to conventional learning, (2) there is an interaction effect between peer tutoring learning and self-regulated learning on Social Studies achievement, (3) peer tutoring learning has an influence on the Social Studies achievement in group of students with high self-regulated learning, while no effect in group of students

with low self-regulated learning. Peer tutoring learning can encourage the high achievement students in the classroom to optimize the capabilities to teach or transmit knowledge to their peers who are underachieving, and exchange ideas and information with their friends, so that students who are underachieving can overcome underdevelopment.

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