
TGT AND DIRECT LEARNING: AN EXPERIMENTAL STUDY ON EQ AND STUDENTS LEARNING ACHIEVEMENT

Purwati Yuni Rahayu¹, Sigit Santoso², Dewi Kusuma Wardani³

¹Department of Economy, Faculty of Teacher Training and Education, Sebelas Maret University, Indonesia,

²The Faculty of Teacher Training and Education Sebelas Maret University Indonesia

Corresponding email: purwatiyunirahayu@gmail.com

ABSTRACT

The purpose of this study was to determine which method has better learning achievement in economics, TGT type cooperative learning or direct learning and which level has better learning achievement (high, medium, or low emotional quotient) on TGT type cooperative learning. This research used a quasi experimental research with eleventh grade students of Senior Public High School in Sukoharjo as a population. A stratified cluster random sampling was done and 202 students were chosen. Among those students, there are 101 students for experiment class and 101 students for control class. The data collected using economics achievement test instrument and student emotional quotient questionnaire. Data analyzed statistically using normality and homogeneity prerequisite test and then using t-test for two independent samples. The result showed that TGT learning model has better achievement than direct learning and the student with high emotional quotient on TGT learning model has better achievement than medium and low emotional quotient. Implication of this study is teacher should prepare innovative instructional strategies as TGT type cooperative learning while teaching and helping the student for build up their emotional quotient.

Keywords : Cooperative learning, TGT, Emotional quotient, Student achievement

INTRODUCTION

Developments in science and technology allow every human being to obtain information with a practical, fast, and consists of a variety of sources. According Soetarno Joyoatmojo (2011: 1), science will be a resource that can lead to improved quality of other resources, especially human resources. Potential human resources are a national asset as well as the basic capital development of a nation. This potential can only be explored and developed effectively through well-managed education.

Education is one of the factors determining the quality of a nation. One of the standards that must be developed in order to achieve quality education is the standard process. Those standards are national standards relating to the implementation of learning in the educational unit to achieve competence graduation. Innovation in learning is necessary in order to provide a memorable learning experience for learners. This is in accordance with Law No.20 of 2003 on the national education system of which Article 40, paragraph 2 states that teachers and education staff are obliged to create the atmosphere of meaningful education, fun, creative, dynamic and dialogical. Experience gained learners will be more

memorable if the learning process obtained is the result of understanding and discovery of learners themselves. The involvement of teachers in the process of learning as facilitators.

The low yield studied Economics at the Senior High School in Sukoharjo regency is assumed to be caused by several factors, including the application of various learning models yet. The assumption is supported by preliminary research in the field, namely when learning activities often occur commotion caused by boredom experienced by students for learning monotonous. Need to be reformed in response to weakening economic learning process quality and student learning outcomes demonstrated by the lack of understanding and mastery of economic subjects to the students.

Updates in the learning process continues in line with the changing times. One of the changes that the learning model. In the known learning a wide variety of learning models, one of which is a cooperative learning model (cooperative learning). Cooperative learning is emphasized that students need to learn to think, solve problems, and learn to apply knowledge, concepts and skills they have to other students who are in need in the group. Also according to Johnson and Johnson (2004) in Aziz (2010: 54) "over 550 experimental studies have been conducted on cooperative learning (CL) in different disciplines, and the results show the effect of CL promote more positive attitudes toward the task as well as cooperation tends to promote higher achievement ". Thus it is assumed that the cooperative learning model is very effective to apply the learning process.

In this case study model chosen by the researchers is learning model Teams Games Tournament (TGT). The reason researchers in the selection of this learning model for cooperative learning model effectively TGT to see the involvement of emotional abilities of students in the learning process. In TGT learning model, students are placed in study groups of 5 to 6 students who have the ability, gender, and race was different. Given the heterogeneity of the group, is expected to motivate students who does more with less capable students in the mastery of the subject matter. TGT learning model is a model of learning that is fun and suitable to the characteristics of students who tend to like games and be able to more quickly explore the emotional students.

The learning process in schools is a process that is complex and comprehensive nature. Citizens generally assumed that students who have high intellectual abilities would have been more successful than students who have the intellectual ability is low. In fact, the opposite can also occur. This can occur due to several factors, one of them is the ability to manage emotions. If students are not able to manage aspects of taste (emotional) well, then these students will not be able to use aspects of intellectual intelligence effectively. Emotional intelligence of each student is different, and therefore the emotional intelligence of the students interesting to study. According By Monir Kalantar (2013: 470-474), "emotional intelligence and self-esteem have Increased in posttest and follow up phases. In related to emotional intelligence, this educational method has improved the level of recognition and awareness of the students of reviews their own capabilities. "The results of these studies indicate that emotional intelligence and confidence may improve post test results and stages of the next phase. In relation

to emotional intelligence, methods of education have increased students' awareness of the capabilities / abilities they have.

Besides wanting to know how big the success of cooperative learning model TGT, this study also want mnegetahui on students who applied TGT model which better learning results of students with high EQ, medium, or low.

METHODS

This study is a quasi-experimental (quasi experimental design) with the pattern of treatment by the level design quasi-experimental research can be interpreted as a research approach experimental or quasi-experimental, but the moderator variable (emotional intelligence) used factorial because in this case only the model of learning by treatment of learning outcomes. This research forms are widely used in the field of science education or other research with human subjects in the study are (Sukardi, 2003: 16). According Budiyono (2003: 82) that "quasi-experimental purpose is to obtain information that is approximate to the information that can be obtained by actual experiment in a state that does not allow to control or manipulate all relevant variables".

Population is the generalization region consisting of: objects / subjects that have certain qualities and characteristics defined by the researchers to learn and then drawn conclusions (Sugiyono, 2010: 117). The population in this study were all students of class XI IPS-Senior High School in Sukoharjo Academic Year 2015/2016. The samples in this study was done by stratified random sampling. Steps being taken in the sampling of the entire SMA is in Sukoharjo first sorted by the average value of National Examination Economics lessons year 2012/2013. Then, sequences were grouped into three categories, namely high, medium, and low. Of each group are taken one at random and selected school SMA Negeri 1 Kartasura group representing higher, SMA Negeri 1 Mojolaban representing the group is, and SMAN 1 Polokarto represent the low group. In this study, samples taken are students of class XI IPS as 6 classes, and each two classes from each school were selected.

The instrument used in this study was a questionnaire of emotional intelligence and achievement test students on the material economy of international trade. Data analysis techniques in this study using Independent sample test (t-test). Prerequisite test used in this research is the analysis of data normality test and test homogneitas.

RESULT AND DISCUSSION

Instrument test data showed that all valid and reliable research instrument so that the instrument meets the criteria as a good instrument in research to find out the results of student learning and emotional intelligence. Results from test to test the hypothesis prerequisite concluded that all the samples come from normal distributed population and the population is homogeneous. After testing hypotheses and a prerequisite for the fulfillment of the prerequisites for testing the hypothesis that the test continued to test the hypothesis using analysis Independent sample test (t-test).

1. Comparison of Learning Model TGT with Direct Learning Model

Group Statistics										
		Model	N	Mean	Std. Deviation	Std. Error Mean				
Hasil Belajar	TGT		101	82.12	7.030	.700				
	Langsung		101	74.83	7.814	.778				

Independent Samples Test												
		Levene's Test for Equality of Variances				t-test for Equality of Means						
							95% Confidence Interval of the Difference					
		Sig	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper			
Hasil Belajar	Equal variances assumed	.737	.392	6.967	200	.000	7.287	1.046	5.225	9.350		
	Equal variances not assumed			6.967	197.806	.000	7.287	1.046	5.225	9.350		

Testing criteria as follows.

1. If $t_{hitung} < t_{tabel}$. then H_0 is rejected
2. If $t_{hitung} > t_{tabel}$. then H_a accepted

Based on the above calculation, obtained t for $6.967 > t_{table} 1.97$. This means H_a accepted. Thus, it can be said that the learning outcomes of students who applied economics cooperative learning model type Teams Games Tournament (TGT) is better than the results of the economic study of students who applied direct instructional model. This can occur because when the TGT learning model applied partisipative on students tend to be more active in learning, were delighted at the time of the games and feel challenged to solve the problems that served as the tournament progresses. By the time students feel happy in the delivery of the materials provided, Students can easily understand and absorb the material presented by the teacher that will ultimately improve the student learning outcomes. On the other hand, students with learning model instantly felt long and tedious learning because they tend to focus on the delivery of the materials provided by the teacher. In the end, students feel bored lazy to pay attention and not be able to receive and understand the material presented optimally, which in turn would affect the learning results obtained.

Cooperative learning is one of a variety of active learning where small heterogeneous groups working together to achieve a goal, and the group members depend on each other for their role in a group (Bilen, 2010: 4873). Perihan (2009: 371) which says that the cooperative learning, the class divided into smaller groups that typically contain 3 to 6 students heterogeneous to try to solve a problem or master a task. Furthermore, according to Johnson & Johnson in Hossain (2013: 473), cooperative learning has been documented in education as a successful pedagogy to increase student achievement.

These results are consistent with research conducted by Van Wyk (2011: 183), which states that "The results indicated resources that the achievement test scores for the IGT group was 52.99, while the control group was 50.13 Lecture. This implies that the TGT group performed better in the achievement test compare to the control group. The retention test for both groups were very Similar. The treatment group indicated resources positive attitude towards TGT as a teaching strategy for economics education ". Based on these quotations, Van Wyk (2011: 183) stated that the final value of cooperative learning model TGT 52.99 which is higher than the control class that is equal to 50.13. It shows that the TGT cooperative learning model is better than the control class. Treatment on cooperative learning TGT indicates a positive thing as a learning strategy in economic education. TGT is a type of learning that puts students in study groups comprised of five or six students who have the ability, gender, and race was different. Given the heterogeneity of the group members are expected to motivate the students to help each other among the students who does more with less capable students in mastering the subject matter. Advantages of this model compared to conventional learning models are students more actively and enthusiastically in cooperation in order to solve the problems that have been assigned by the teacher. With the student activity that will improve results belajar students because students will be better able to understand the material by studying together.

2. Comparison of the high EQ and medium EQ being the TGT learning model

Group Statistics					
	Kecerdasan Emosi	N	Mean	Std. Deviation	Std. Error Mean
Hasil Belajar	TINGGI	30	88.47	5.191	.948
	SEDANG	41	82.15	5.067	.791

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference		
		Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
Hasil Belajar	Equal variances assumed	.002	.969	5.138	69	.000	6.320	1.230	3.866	8.774
	Equal variances not assumed		5.119	61.768	.000	6.320	1.235	3.852	8.789	

3. Comparison of high EQ and low EQ on TGT learning model**Group Statistics**

		Kecerdasan Emosi	N	Mean	Std. Deviation	Std. Error Mean
Hasil Belajar	TINGGI		30	88.47	5.191	.948
	RENDAH		30	75.73	4.920	.898

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference		
		Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
Hasil Belajar	Equal variances assumed	.301	.585	9.752	58	.000	12.733	1.306	10.120	15.347
	Equal variances not assumed		9.752	57.833	.000	12.733	1.306	10.119	15.347	

The criteria for testing as follows.

Criteria for thitung

If thitung < ttabel. then H_a is rejected

If thitung > ttabel. then H_a accepted

Criteria for Fhitung

If Fhitung < Ftabel. then H_a is rejected

If Fhitung > Ftabel. then H_a accepted

Based on the calculations above, the first \$ 5.119 obtained $t > t_{table}$ of 1.99, and a second at 9.752 thitung > t_{table} 2.00. As for Fhitung 9.368 > F_{table} by 3.94. This means H_a accepted. Thus, it can be said that the students who applied cooperative learning model type Teams Games Tournament (TGT), the results of the economic study of students who have a high level of emotional intelligence is better than the learning outcomes of students who have high levels of moderate and low emotional intelligence.

According Shimazoe and Aldrich (2010: 54), there are some benefits to using cooperative learning for students. First, cooperative learning increase understanding of teaching materials in depth. Second, students achieve better grades in comparison to competitive cooperative learning or individual learning. Third, students learn social skills and values kemasyarakatan. Fourth, students learn by using a high-level critical thinking skills. Fifth, cooperative learning can enhance personal growth and ultimately the child to develop a positive attitude towards independent learning. One model of cooperative learning are Teams Games Tournament (TGT).

At the time of type TGT learning model is applied, the results of the economic study of students who have high emotional intelligence is better than students with emotional intelligence was. This can occur because students who have high emotional intelligence are able to manage the emotions of its fine. According By Monir Kalantar (2013: 470-474), "emotional intelligence and self-esteem have Increased in posttest and follow-up phases. In related to emotional intelligence, this educational method has improved the level of recognition and awareness of the students of Reviews their own capabilitie. "The results of these studies indicate that emotional intelligence and confidence may improve post test results and stages of the next phase. Managing emotions related to how the students were able to motivate himself and his friends in the teaching and learning activities, able to rise when experiencing failure, is able to discuss and work together well and cooperatively with the other students, and others. In TGT cooperative learning model in which students are encouraged to actively partisipative in learning indeed affects the ability to manage the emotional students. TGT various activities in such discussions, games, and tournaments intertwined with elements that exist in emotional intelligence. Students with high emotional intelligence can certainly well past the discussion, games, and tournaments given by the teacher. This can occur because students with high emotional intelligence are able to manage emotions in him in order to align with the learning process TGT given. By the time students with high EQ fail so quickly the students will rise up and be excited to learn that the test results will be even

better than. So is the case at the time of the discussion, games, as well as the tournament progresses. Students with high EQ will be easy to adapt and follow the directions given sehigga students with high EQ can understand the subject matter presented optimally.

CONCLUSIONS AND SUGGESTIONS

Based on the above results it could be concluded as follows:

1. The results of the economic study of students using TGT learning model is better than the direct learning model.
2. When applied TGT learning model, the results of the economic study is students with high EQ better than moderate and low EQ.

Suggestions from this study is the teacher should be motivated to choose a model of cooperative learning that one of them is a learning model Teams Games Tournament. It is important for students to be actively involved in learning so that students are able to construct a conceptual understanding of the material being studied and actively express their opinions in accordance with the implementation of cooperative learning model that can ultimately improve student learning outcomes.

REFERENCES

- Aziz, Zahara a *, Md. Anowar Hossain. (2010) *A comparison of cooperative learning and conventional teaching on students' achievement in secondary mathematics*. *Procedia Social and Behavioral Sciences* 9 (2010) 53–62
- Bilen, Sermin. 2010. *The effect of cooperative learning on the ability of prospect of music teachers to apply Orff-Schulwerk activities*. *Procedia Social and Behavioral Sciences* 2 (2010) 4872–487.
- Budiyono. 2003. *Statistika untuk Penelitian*. Surakarta: Sebelas Maret University Press
- Hossain, Anoar. Tarmidzi, Rohan Ahmad. 2013. *Effects Of Cooperative Learning On Students' Achievement And Attitudes In Secondary Mathematics*. *Procedia - Social and Behavioral Sciences* Vol. 93 Page 473 – 477
- Micheal M. van Wyk . 2011. *The Effects of Teams-Games-Tournaments on Achievement, Retention, and Attitudes of Economics Education Students*. *Journal Social Science*. Vol. 26(3): 183-193
- Monir Kalantar, Groyeshi. Flor,Rezaei Kargar. 2013. *Effect of Combined Mastery-Cooperative Learning on Emotional Intelligence, Self-esteem, and Academic Achievement in Grade Skipping*, *Procedia Social and Behavioral Sciences*. Vol 84, Pages 470-474
- Perihan Dinc, Artut .2009. *Experimental evaluation of the effects of cooperative learning on kindergarten children's mathematics ability* . *International Journal of Educational Research* 48 (2009) 370–380
- Shimazoe, J. and H. Aldrich, 2010. *Group work can be gratifying: Understanding and overcoming resistance to cooperative learning*. *Coll. Teach.*, 58: 52-57. DOI: 10.1080/ 87567550903418594

- Soetarno Joyoatmojo. 2011. *Pembelajaran Efektif : Pembelajaran yang Membelajarkan*. Surakarta: Sebelas Maret University Press
- Sukardi. 2003. *Metodologi Penelitian Pendidikan*. Jakarta: Bumi Aksara
- Sugiyono. 2010 . *Metode Penelitian Pendidikan*. Bandung: Alfabeta