Indonesian Journal of Education Research (IJoER)
Vol. 4, No. 6, December 2023, pp. 160~168
ISSN: 2722-1326, DOI: 10.37251/ijoer.v4i6.794

The Influence of Applying the Think Pair Share and Cooperative Script Cooperative Learning Models on Economics Learning Achievement in View of Students' Learning Motivation

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Article Info

Article history:

Received Oct 11, 2023
Revised Nov 11, 2023
Accepted Dec 18, 2023

Keywords:

Cooperative Scripts
Learning Achievement
Motivation
Think Pair Share

ABSTRACT

Purpose of the study: This research aims to compare the effect of learning models (Think Pair Share and Cooperative Script) on student learning achievement. Also researched was the influence of learning motivation (high, medium, low) on students' economic learning achievement. The research involves the interaction between learning models and students' learning motivation on economic learning achievement.

Methodology: This research method is a quasi-experiment with a population of class X high school students. The sample consists of two classes selected using saturated sampling techniques. The experimental class applies Think Pair Share, while the control class uses Cooperative Script. Learning achievement data is collected through tests, while student learning motivation data is collected through questionnaires. Hypothesis analysis used two-way ANOVA with a 3 x 2 factorial design using SPSS 21.

Main Findings: The results of the research show that: there are differences in the influence of the think pair share and cooperative script cooperative learning models on student learning achievement (F_{count} = 11.939, and $p < 0.05$); 2) there are differences in the influence of high, medium and low learning motivation on students' economic learning achievement (F_{count} of 22.463 and $p < 0.05$); 3) there is an interaction between the learning model and student learning motivation on the economic learning achievement of class students (F_{count} of 3.787 and $p < 0.05$).

Novelty/Originality of this study: This research provides a new contribution in comparing the influence of the Think Pair Share (TPS) and Cooperative Script cooperative learning models on students' economic learning achievement. The research results show that the TPS learning model has a more significant influence on increasing students' economic learning achievement and learning motivation.

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1. INTRODUCTION

Education is important to face developments in the current era of globalization. Along with advances in science and technology, education in Indonesia also continues to develop towards improvements to improve the quality of education [1]–[3]. Education is a very complex series of events which contains a series of

communication activities carried out between humans and humans [4], [5]. In education there is also a process to help people develop themselves so that they are able to face all changes and problems with an open and creative attitude.

Education that is able to support future development is education that is able to develop the potential of students, so that they are able to face and solve the life problems they face [6]–[8]. Education must touch the potential conscience and potential competence of students [9], [10]. The concept of education feels increasingly important when someone has to enter life in society and the world of work, because the person concerned must be able to apply what they learn at school to face the problems faced in daily life now and in the future.

Improving the quality of educational outcomes, especially economic learning, requires concrete efforts through improving weaknesses in economic learning. Economics is a field of study that has an important role in education and in everyday life. Learning economics is basically learning concepts, while the basic concepts of economics are a complete and unified whole. Economics learning must start from general matters to specific matters and must pay attention to the sequence of several concepts. A concept must be taught and mastered first if that concept is needed in subsequent concept learning. To improve understanding of the concept, practice is needed in solving problems related to the concept. This means that teachers are required to apply an appropriate teaching method to be able to foster students' interest in learning, so that the expected achievements can be achieved optimally.

In the economics learning process for class X high school, many students experience difficulties in understanding the subject matter. It was also seen that students were less enthusiastic about participating in the learning process. Based on the results of daily tests, students' learning achievement in class X economics subjects in high school is still low. This is shown based on the many students' scores that do not meet the Minimum Completeness Criteria. This condition is reflected in the results of the daily tests in the first chapter, namely that out of a total number of 60 students, only 40% or 24 students reached the Minimum Completeness Criteria, while the scores were still below the Minimum Completeness Criteria, 60% or 36 students. Apart from that, student learning participation is still low, this condition is known from the results of observations by researchers and teachers. When the teacher explains, all students pay attention to the teacher's explanation, but only a small number of students are active. This can be seen from the behavior of students, including: when students are given the opportunity to ask questions, no students ask questions; when the teacher asks a question, only certain students always answer or some answer because they are appointed; when given the opportunity to work on questions on the blackboard, only certain students want to do it or they do it because they are appointed by the teacher; and when given homework, most students copy their friends' work.

Based on the results of observations made by researchers, it shows that the success of economic learning programs is only based on assessing student learning achievement, while evaluation of the quality of economic learning receives less attention. Assessment of economic learning achievement focuses more on aspects of academic skills, paying less attention to social skills.

Cooperative learning using the think pair share (TPS) learning model, was developed by Frank Lyman from the University of Maryland in 1985 as a structure for mutual cooperation learning activities. This model gives students the opportunity to work alone and collaborate with other people [11]. Think pair share has explicitly defined procedures to give students more time to think, answer, and help each other. Think pair share (TPS) model instead of whole class question and answer questions. Cooperative learning using the Think Pair Share (TPS) model and cooperative script makes students interact with each other between students and students and teachers and students [12].

The choice of cooperative learning model think pair share (TPS) and cooperative script in teaching and learning activities is intended to develop students' social skills and social communication, increase learning activities, increase students' enthusiasm for learning, collaborate in study groups, be more effective in learning and can improve student learning achievement [13]. The cooperative think pair and share (TPS) and cooperative script models provide opportunities for students to maximize activities both individually and in groups so that this will have an impact on students' better learning achievement [14].

This research is in line with research conducted by Handayani and Yanti [13] which states that the choice of cooperative learning models think pair share (TPS) and cooperative scripts in teaching and learning activities is intended to develop students' social skills and social communication, increase learning activities, increase students' enthusiasm for learning, Collaborating in study groups is more effective in learning and can improve student learning achievement. This research is also in line with research Kamil et al., [14] which states that the cooperative think pair and share (TPS) and cooperative script models provide opportunities for students to maximize activities both individually and in groups so that this will have an impact on better student learning achievement. However, the two studies did not compare the effect of cooperative learning models such as Think Pair Share (TPS) and Cooperative Script on students' economic learning achievement, so this research is important to conduct.

The novelty of this research is that it provides a new contribution in comparing the influence of cooperative learning models such as Think Pair Share (TPS) and Cooperative Script on student economic

learning achievement. The research results show that the TPS learning model has a more significant influence on increasing economic learning achievement and student learning motivation. The urgency of this research is that by providing a cooperative learning model treatment that can be used as an alternative solution to existing problems. The aim of this research is to determine the effect of implementing the cooperative learning model think pair share (TPS) and cooperative script on economic learning achievement in terms of motivation. student learning.

2. RESEARCH METHOD

2.1 Research Type

This research is a quasi-experimental research. Experimental research is a research activity that aims to assess the effect of an educational treatment/action/treatment on student behavior or test a hypothesis about whether or not the action has an effect when compared with other actions. The researcher treated the sample in two groups, namely one group using the think pair and share (TPS) learning model, and the other group using a cooperative script. These two groups are assumed to be the same in all relevant aspects and differ only in the provision of teaching treatment. The pretest-posttest design in this research is described in the table below.

Tabel 1. *Pretest-Postest Control Group Design*

Group	Pre-Test	Treatment	Post-Test
Experimental Group	Y_1	X	Y_2
Control Group	Y_2	X	Y_2

2.2 Research Sample

The research was carried out at the high school level. Population is a generalized area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions [5], [15], [16]. The population in this study were class X students in high school consisting of 2 classes with a total of 60 students. A sample is a part of a population that has certain characteristics or conditions to be studied [17]–[19]. Based on the use of saturated sampling and then drawing lots, 30 students from class XA were obtained as the experimental class using the Think Pair Share learning model and 30 students from class XB as the control class using the Cooperative Script learning model.

2.3 Data Collection Technique

There are three types of methods or techniques used to collect data in this research, namely documentation methods, test methods and questionnaire methods. The test used in this research was to obtain data about students' learning achievement in economics subjects on the topic of national income in class X. The questionnaire method in this research was used to obtain data about students' learning motivation in economics subjects.

2.4 Data Analysis technique

The data analysis techniques used in this research are descriptive statistical analysis techniques and inferential statistical analysis techniques. Descriptive analysis technique is a type of data analysis that is intended to reveal or describe the circumstances or characteristics of each research variable [20], [21]. The inferential statistical analysis used in this research is a thorough two-way analysis of variance (ANOVA).

3. RESULTS AND DISCUSSION

Description of Student Learning Motivation Data

Motivation data was obtained from a questionnaire given to students before learning was given to each class, both TPS class and Cooperative Script class. The students' learning motivation data is classified into three categories based on the average (X) and standard deviation (SD). The results of calculating student learning motivation data from the two classes obtained an average of 80.73 and a standard deviation of 7.4274. Data on students' learning motivation in each class, both experimental class and control class. More details can be seen in Appendix 10. Motivation is classified into three categories, namely high, medium and low motivation. This division is based on the average value of student motivation data. High motivation if the student's score is higher than the average, moderate motivation if the student's score and social learning interactions are low if the student's score is lower than the average.

Table 2. Data on the number of students in each motivation category and learning model

Motivation	Number of Students		Amount
	TPS	*Cooperative Script*	
Tall	12	10	22
Currently	11	11	22
Low	7	9	16
Amount	30	30	60

Description of Students' Initial Economic Capabilities Data

Initial ability data is obtained from tests given to students before learning. This division is based on the average value of students' initial ability data. Data on students' initial economic abilities was obtained from daily test scores in economics subjects. The average initial economic ability of students in the experimental class (TPS learning model) was 75.26, in the control class (Cooperative Script learning model) it was 75.06. Complete data on students' initial economic abilities for each class, both experimental and control classes, can be seen in Appendix 25. A description of students' initial economic abilities in the experimental and control classes is presented in the following table:

Table 3. Descriptive statistics of data on students' initial economic abilities

Class/Group	N	Min	Max	Mean	Std. Deviation
TPS	30	64	88	77,33	6,671
Cooperative Script	30	64	84	72,93	6,097

The prerequisite tests carried out in this research are the normality test, homogeneity test and balance test. The normality test is carried out to determine whether each class has a normal distribution or not [22]–[24]. The normality test results are shown in the table below.

Table 4. Normality test results of students' initial economic ability data

Class/Group	N	Statistics	Sig.	Test Decision	Conclusion
TPS	30	0,133	0,184	H_0 is not rejected	Normal
Cooperative Script	30	0,146	0,103	H_0 is not rejected	Normal

Based on the results of the normality test data on students' initial economic abilities, both in classes with the think pair share (TPS) learning model, classes with the Cooperative Script learning model show that the significant value is greater than 0.05, so it can be concluded that all groups or classes come from from a normally distributed population. Next, a homogeneity test was carried out which aimed to find out whether the experimental class or control class had the same variance or not. The homogeneity test results can be seen in the following table:

Table 5. Results of homogeneity test data on students' initial economic abilities

Sample	Statistics *levene*	Sig.	Decision	Conclusion
TPS and Cooperative Scripts Class	1,416	0,992	H_0 is not rejected	Homogen

Based on the table above, it can be seen that the levene statistical value is 1.416 and the significant value is 0.992. The significance value is greater than 0.05 so H_0 is not rejected. Based on this, it was concluded that the research samples in both the Think Pair Share class and the Cooperative Script class had the same variance (homogeneous). Next, a balance test was carried out using one-way ANOVA. The results of the calculation of the balance test of students' initial economic abilities in the experimental class and control class are presented in the following table:

Table 6. Results of balance test data on students' initial economic abilities

Sample	F	Sig.	Decision	Conclusion
TPS and Cooperative Script Class	1,416	0,162	H_0 is not rejected	Balanced

The results of the balance test using one-way ANOVA with the same cells at a significance level of 0.05 on students' initial economic ability data show that the t value is 1.416 and the significance value is 0.162. Based on this, the significant value of 0.162 is greater than 0.05 so that H_0 is not rejected. Based on this, it can be concluded that the two classes, both the experimental class and the control class, have balanced initial abilities.

Description of Student Economics Learning Achievement Data

Data on students' cognitive achievement is taken from tests given to students after the learning process. Economic learning achievement data was obtained from economic learning achievement test scores after providing treatment in the experimental class and control class. Economic learning achievement data was obtained from 2 classes, namely class 30 students, so the number of students who took the economic learning achievement test was 60 students. The number of achievement test questions given to the experimental and control classes was 25 questions. Complete data on economic learning achievement of students in each class, both experimental and control classes and each motivation category can be seen in Appendix 28. Summary of descriptive statistics on economic learning achievement data of students in the experimental class and control class and each motivation category , both high motivation, medium motivation and low motivation are presented in the table as follows. A description of students' cognitive achievement data can be presented as follows:

Table 7. Descriptive statistics of student economic learning achievement data for each learning model and each motivation category

Group	N	Min	Max	Mean	Std. Deviation
Learning achievement	60	64	88	75,13	6,713
TPS	30	64	88	77,33	6,671
Cooperative Scripts	30	64	84	72,93	6,097
High motivation	22	72	88	80,73	4,723
Moderate motivation	22	64	84	72,36	5,645
Low motivation	16	64	80	71,25	5,310
High motivation TPS	12	76	88	82,67	4,292
Medium motivation TPS	11	64	84	72,36	6,131
Low motivation TPS	7	72	80	76,00	3,266
Cooperative Script high motivation	10	72	84	78,40	4,300
Cooperative Script moderate motivation	11	64	80	72,36	5,201
Cooperative Script low motivation	9	64	72	67,56	3,127

The prerequisite tests carried out in this research are the normality test, homogeneity test and balance test. The normality test in this study was carried out to determine whether the random sample data came from a population with a normal distribution or not [25]-[27]. The normality test results are shown in the table below.

Table 8. Normality test results of students' economic learning achievement data

Group	Statistics	Sig.	Decision	Conclusion
TPS	0,122	0,200	H_0 is not rejected	Normal
Cooperative Scripts	0,128	0,200	H_0 is not rejected	Normal
High motivation	0,166	0,117	H_0 is not rejected	Normal
Moderate motivation	0,156	0,175	H_0 is not rejected	Normal
Low motivation	0,167	0,200	H_0 is not rejected	Normal
High motivation TPS	0,205	0,174	H_0 is not rejected	Normal
Medium motivation TPS	0,159	0,200	H_0 is not rejected	Normal
Low motivation TPS	0,214	0,200	H_0 is not rejected	Normal
Cooperative Script high motivation	0,245	0,090	H_0 is not rejected	Normal
Cooperative Script moderate motivation	0,212	0,178	H_0 is not rejected	Normal
Cooperative Script low motivation	0,223	0,200	H_0 is not rejected	Normal

Based on the results of the normality test in table 15 above, it can be concluded that the economic learning achievement data of students in each TPS class, Cooperative Script class, student learning motivation is in the categories of high, medium, low motivation and in each combination of learning models. with motivation coming from a normally distributed population. Next, a homogeneity test was carried out. The homogeneity test results are shown in the table below.

Table 9. Results of homogeneity test data on students' economic learning achievement

Sample	F *levene*	Sig.	Decision	Conclusion
TPS and Cooperative Script Class	1,248	0,300	H_0 is not rejected	Homogen

The results of the homogeneity test at a significance level of 0.05 on student economic learning achievement data obtained an F value of 1.248 with a significance of 0.101 greater than 0.05 (0.101 > 0.05), so H0 was not rejected. Based on this, it can be concluded that the economic learning achievement data of students

in the experimental class and control class have the same variance (homogeneous). Next, a balance test was carried out using two-way ANOVA with the same cells. The results are shown in the table below.

Table 10. Two-way ANOVA hypothesis test results with the same cells

Source	JK	DK	RK	F_{count}	Sig.	Decision
Learning Model (A)	260,971	1	260,971	11,939	0,001	H_0 was rejected
Motivation (B)	982,053	2	491,026	22,463	0,000	H_0 was rejected
Interaction (AB)	165,543	2	82,771	3,787	0,029	H_0 was rejected
Error (G)	1180,380	54	21,859			
Total	341360,000					

Based on the results of hypothesis testing using two-way ANOVA with the same cells in the table above, it can be concluded that:

1) There are differences in the influence of learning models on students' economic learning achievement. This can be seen from the significance value of 0.001 with an Fcount value of 11.939. The significance value of 0.001 is smaller than 0.05 (0.001 < 0.05) so that the hypothesis H0a is rejected and H1a is not rejected. This means that the two learning models, both the Think Pair Share learning model and the Cooperative Script learning model, have different influences on students' economic learning achievement.
2) There are differences in the influence of students' learning motivation on students' economic learning achievement. This can be seen from the significance value of 0.000 with an Fcount value of 22.463. The significance value of 0.000 is smaller than 0.05 (0.000 < 0.05) so that the hypothesis H0b is rejected and H1b is not rejected. This means that the learning motivation of students in the categories of high learning motivation, medium learning motivation and low learning motivation has a different influence on students' economic learning achievement.
3) There is an interaction effect between the learning model and students' learning motivation on students' economic learning achievement. This can be seen from the significance value of 0.029 with an F value of 3.787. The significance value of 0.029 is smaller than 0.05 (0.029 < 0.05) so that the H0ab hypothesis is rejected and H1ab is not rejected. This means that there is an interaction between the learning model and students' learning motivation on students' economic learning achievement.

Based on the results of the statistical hypothesis tests described above, the three hypotheses in this research can be explained as follows:

There are differences in the influence of the Think Pair Share and Cooperative Script learning models on students' economic learning achievement

Hypothesis H_0 in this study states that there are differences in the influence of learning models on students' economic learning achievement. Based on the results of hypothesis testing using two-way analysis of variance with the same cells, it shows that the hypothesis H_0 is rejected. This can be seen from the significance value of 0.001 with an Fcount value of 11.939. The significance value of 0.001 is smaller than 0.05. This means that the two learning models, both the TPS learning model and the Cooperative Script learning model, have different influences on students' economic learning achievement.

Based on this, it can be concluded that there are differences in the influence of learning models on students' economic learning achievement. The level of difference in influence provided by the two learning models on students' economic learning achievement can be seen from the results of comparison tests of the average economic learning achievement of students between rows and the marginal average of students' economic learning achievement in each learning model. Based on the results of the average comparison test between lines, it can be explained as follows: Comparison between the think pair share learning model and cooperative script, shows that H_0 is rejected. This means that the think pair share and cooperative script learning models have different effects or influences on students' economic learning achievements. Based on the marginal average of students' economic learning achievement in the think pair share and cooperative script learning models, it can be seen that the marginal average in the think pair share learning model is 77.33 higher than the marginal average in the cooperative script learning model of 72.93. Based on this, it can be concluded that the economic learning achievement of students in the three pair share learning model is better when compared to the economic learning achievement of students in the cooperative script learning model.

There are differences in the influence of learning motivation on students' economic learning achievement

Hypothesis H_0 in this study states that there is no difference in the influence of students' learning motivation on students' economic learning achievement. Based on the results of hypothesis testing using two-way analysis of variance with unequal cells, it shows that the hypothesis H0b is rejected. This can be seen from the significance value of 0.000 with an Fcount value of 22.463. The significance value of 0.000 is smaller than

0.05. This means that the learning motivation of students in the categories of high learning motivation, medium learning motivation and low learning motivation has a different influence on students' economic learning achievement.

Based on this, it can be concluded that there are differences in the influence of students' learning motivation on students' economic learning achievement. In this regard, to determine the level of difference in the influence that the three categories of student learning motivation have on students' economic learning achievement, it can be seen from the results of the comparison test of the average student economic learning achievement between columns and the marginal average of students' economic learning achievement in each column. categories of student learning motivation. Based on the results of the mean comparison test between columns, it can be explained as follows:

a) A comparison of the average between students' learning motivation in the high motivation category and the medium motivation category shows that H_0 is rejected. This means that the learning motivation of students in the high motivation category and the learning motivation of students in the moderate motivation category have different effects or influences on students' economic learning achievement. Based on the marginal average of students' economic learning achievement in the learning motivation of students in the high motivation category and the learning motivation of students in the medium motivation category, it can be seen that the marginal average in the learning motivation of students in the high motivation category is 82.73 higher when compared with The marginal mean for students' learning motivation in the moderate motivation category is 72.36. Based on this, it can be concluded that the economic learning achievement of students in the high learning motivation category has better economic learning achievement when compared to the economic learning achievement of students in the medium motivation category.
b) A comparison of the average between students' learning motivation in the high motivation category and the low motivation category shows that H_0 is rejected. This means that the learning motivation of students in the high motivation category and the learning motivation of students in the low motivation category have different effects or influences on students' economic learning achievement. Based on the marginal average of students' economic learning achievement in the learning motivation of students in the high motivation category and the learning motivation of students in the low motivation category, it can be seen that the marginal average in the learning motivation of students in the high motivation category is 80.73 higher when compared with The marginal mean for learning motivation of students in the low motivation category is 71.25. Based on this, it can be concluded that the economic learning achievement of students in the high learning motivation category has better economic learning achievement when compared to the economic learning achievement of students who have low motivation.
c) A comparison of the average between students' learning motivation in the medium motivation category and the low motivation category shows that H_0 is rejected. This means that the learning motivation of students in the moderate motivation category and the learning motivation of students in the low motivation category have different effects or influences on students' economic learning achievement. Based on the marginal average of students' economic learning achievement in the learning motivation of students in the medium motivation category and the learning motivation of students in the low motivation category, it can be seen that the marginal average of learning motivation of students in the medium motivation category is 72.36 higher when compared with The marginal mean for learning motivation of students in the low motivation category is 71.25. Based on this, it can be concluded that the economic learning achievement of students with moderate learning motivation category has better economic learning achievement when compared to students who have low motivation.

Based on the description above, it can be concluded that students with the high learning motivation category have better economic learning achievements when compared to the economic learning achievements of students who have medium learning motivation and low learning motivation. Students with moderate learning motivation category have better economic learning achievements compared to students who have low learning motivation.

The economic learning achievement of students with high motivation is better than students who have medium and low motivation, possibly due to several things, namely; a) students in the high motivation category provide better answers in answering questions given by the teacher. b) students with a high motivation category, when answering questions given by the teacher use their own words. c) students with a high motivation category can determine the essence of the material presented.

The economic learning achievement of students with moderate motivation is better than students with low motivation, possibly due to several things, namely; a) students who have moderate motivation tend to respond quickly to questions asked by their classmates. b) students who have moderate motivation interact more with students who have high motivation.

There is an interaction effect between the learning model and students' learning motivation on students' economic learning achievement

Hypothesis H_0 in this study states that there is an interaction between the learning model and students' learning motivation on students' economic learning achievement. Based on the results of the hypothesis test, it shows that the Fcount value is 3.787 with a significance value of 0.029. The significance value of 0.029 is smaller than 0.05 (0.029 < 0.05) so H0ab is rejected. Based on this, it can be concluded that there is an interaction between the learning model and students' economic learning motivation on students' economic learning achievement. The results of this research are relevant to research conducted by Kartikawati [28] concluding that the think pair share (TPS) cooperative learning model has a significant effect on students' learning achievement motivation. Students who were treated with the think pair share (TPS) cooperative learning model had better achievements.

The implication of this research is that research on the effect of implementing the Think Pair Share (TPS) and Cooperative Script Cooperative learning models on economic learning achievement by considering student learning motivation can provide valuable insights for education practitioners and curriculum development. The results of this research can provide a basis for teachers and curriculum designers to consider the integration of cooperative learning models such as TPS and Cooperative Script as an effective strategy in improving economic learning achievement. In addition, a deeper understanding of the relationship between these learning models and student learning motivation can help create a learning environment that supports the development of economic skills and student motivation to learn.

A limitation of this study is that the generalizability of the findings may be limited because the study was conducted in a specific educational setting, and the results may not be universally applicable to diverse student populations. Additionally, the duration and scope of the study may not fully capture the long-term impact of cooperative learning models on students' economic achievement. Additionally, individual variations in students' motivation levels, which were not extensively accounted for in this study, may impact the efficacy of this cooperative learning model. Future research should consider addressing these limitations to provide a more comprehensive understanding of the relationship between cooperative learning strategies, motivation, and academic achievement in economics.

4. CONCLUSION

Based on the research results, the conclusions that can be put forward in this research are: 1) There are differences in the influence of learning models on students' economic learning achievement. The Think Pair Share (TPS) learning model provides better student economic learning achievement when compared to the Cooperative Script learning model; 2) There are differences in the influence of students' learning motivation on students' economic learning achievement; and 3) There is an interaction effect between the learning model and students' learning motivation on students' economic learning achievement. The researcher provides suggestions for other researchers so that other researchers can choose or develop research on different cooperative learning models or use other independent variables that influence student learning achievement. It is hoped that this research can be used as a reference in developing further research regarding cooperative learning models and student learning motivation.

ACKNOWLEDGEMENTS

We would like to thank all parties who have helped with this research.

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