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The Influence of Applying Cooperative-Technical TPS (Think Pair Share) Learning Method on Students' Understanding of Concepts in View of Students' Learning Motivation

Yumitra Falenthine Br Ginting[1*], Sri Wahyuni Tarigan[2], Herna Jusnita Simamora[3]
[1,2,3] *Efarina University, Indonesia*

Corresponding Author yumitraginting@gmail.com

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ABSTRACT

The effect s of cooperative -technical model *Think Pair Share* towards students' understanding of concept s viewed from learning motivation. This research used a 3x2 factorial design. . Based on the test of normality , homogeneity , t-test and ANOVA two-line from the pretest and posttest data , concluded : First , there were differences in students' understanding of concepts in learning economics while using cooperative -technical models of Think Pair Share and conventional models. Second , there were differences in students' level of understanding economics concepts that was higher than students in the experiment class than students in the control class. Third , there were effects of students ' learning motivation towards their understanding of economic concepts and there was no interaction between learning models and learning motivation toward students' understanding of concepts.

Keywords: *Cooperative Learning Method, TPS (Think Pair Share), Learning Motivation*

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INTRODUCTION

In this era of rapid technological and scientific development, it has caused many changes to occur which of course will demand a better education system. Because a good education system is of course a response to the development of global demands as an effort in adapting an education system that is able to develop human resources to meet the demands of a developing agev (Nainggolan et al., 2022). With educational reform, it is hoped that our current education can have a future outlook that provides guarantees for developing students' potential and achievements in the future (Scales et al., 2020). However, education in Indonesia has always received a very sharp spotlight related to the demand to produce quality human resources capable of dealing with developments in science and technology , Degeng (Ramadhani, 2017).

Likewise with the development and arrangement of the Education Unit Level Curriculum (KTSP 2006) to become the 2013 Curriculum. The 2013 Curriculum promises to give birth to the next generation of nations who are productive, creative, innovative and with character (Rosdi, 2020). With creativity, the nation's children are able to innovate productively to respond to increasingly complex and complex future challenges (Styers et al., 2018). The 2013 curriculum in producing productive, creative and innovative people and in realizing national education goals to shape dignified

national character and civilization is largely determined by various factors which are the key to success (Dewi et al., 2021).

To implement changes in the field of education, since 1998, UNESCO has put forward two basic foundations: first ; education must be placed on the four pillars of learning, namely learning to know , learning to do , learning to live together , and learning to be yourself ; second, lifelong learning (life long learning) (Mulyasa 2013: 2). From this description it can be seen that changes in the field of education continue to be made to improve and perfect the education system so that it is expected to be able to provide better changes that will improve the quality of education (Saraswati et al., 2021). It is hoped that the changes made will be able to improve the quality of education in Indonesia, because the quality of education in Indonesia is still very low, this is caused by many factors, especially in the national education system, which will affect the human resources of the Indonesian people (Schjøler, 2019). As expressed by Hadis & Nurhayati (in Kurniawan et al., 2020) that the decline in the quality of education in Indonesia in general and the quality of higher education specifically seen from a macro perspective can be caused by the poor national education system and low human resources (Ardiyani et al., 2019).

One of the efforts that can be made to overcome the above obstacles is to organize education in accordance with the development and changes in society followed by technological developments (Alhamuddin et al., 2020). Schools as a means of improving the quality of education play an important role in creating quality young people. This must also be supported by qualified teachers where teachers must be able to master and apply learning management strategies with learning strategies and methods that are able to build student enthusiasm for learning (Liunokas, 2019). The teacher is an inspirational figure and motivator for students in carving out their future. If teachers are able to become a source of inspiration and motivation for their students, then this will become the strength of students in pursuing big goals in the future Asmani (in Kurniawan et al., 2020b). This shows that the role of the teacher is very vital for the formation of enthusiasm for learning because behind student success there is always a teacher who provides motivation for students to learn. Before the implementation of the learning process in the classroom is carried out, a teacher must first organize, organize the learning content to be taught (Purba et al., 2021). This needs to be done so that the learning content taught is easy for students to understand. Likewise during the learning process, teachers are expected to be able to grow, maintain/maintain, and increase student motivation (Alashwal, 2020).

The low learning motivation of students and the low understanding of students' concepts in economics subjects are influenced by the teaching and learning process (PBM). Based on practice, PBM contains five components of communication including the educator as a communicator, the existence of learning materials as information to be conveyed, the use of media in learning as a means of communication, the existence of students as communicants, and the existence of learning objectives as guidelines evaluation of learning outcomes (Sulianto et al., 2019).

From the results of observations at SMA Negeri 14 Bandung, information was obtained that students' understanding of concepts was still relatively low, which was reflected in learning outcomes in economics subjects. Basically, students' learning motivation and the ability to understand concepts are formed from learning outcomes which are a reflection of the success of the teaching and learning process. If the value obtained by students is high, it allows success in the teaching and learning process. seen from the learning outcomes through the midterm test scores (UTS) based on the

minimum completeness criteria (KKM). This is supported by the UTS scores based on KKM showing that students with learning outcomes below the KKM for class X IIS-1 reach 50% and the percentage of learning outcomes above KKM by 50%. Whereas in class X IIS - 2, the percentage of students' learning outcomes below the KKM was 31.6% and 68.4% of students who scored above the KKM. Not much different from the KKM score for class X IIS - 1, class X IIS - 3 which shows that the score below the KKM is 57.9% and only 42.1% get a score above the KKM. This situation shows that the learning outcomes of students are still low at class X economics subjects SMA Negeri 14 Bandung.

Problems that arise in teaching and learning activities in economics subjects in class X SMA Negeri 14 Bandung, namely students' understanding of concepts which are reflected in learning outcomes in economics subjects. This is caused by students' lack of understanding of economics subject matter, and low student understanding can be caused by poor teaching and learning processes (Jatmiko et al., 2018). From the results of initial observations, it was seen that students looked passive and only listened to the teacher's explanation (Efendi et al., 2020). According to the observations of researchers, this lack of student interest occurs because learning methods are less innovative because teachers tend to use lecture and question and answer methods so that this results in a lack of students' understanding of the material and has an impact on students' low learning enthusiasm (Fahmi et al., 2022). Based on interviews with teachers and students, this condition is possible because there is still a lack of motivation for both teachers and students in learning economics. To overcome this problem, we need a learning method that is able to improve students' conceptual understanding skills in economics learning (Sitopu et al., 2021).

Economics learning is learning that requires students to understand and understand and apply it and requires students to have high motivation to achieve good academic grades. Huda (in Zulfah, 2017) states that almost all research on cooperative learning from elementary to tertiary institutions shows that this learning can have a significant influence on student academic achievement. Not only that, this learning is proven to be able to increase students' tolerant attitudes towards friends of different ethnicities, levels and gender (Basalamah & As'ad, 2021).

From the statement above it can be understood that the cooperative learning method is an alternative that really helps teachers to increase students' understanding and motivation to achieve academic grades according to what is expected. Requires concrete efforts so that students' understanding can increase as well as the students' learning motivation itself, especially in economics class X SMA Negeri 14 Bandung. It can be said that the target of students' absorption of economics subjects is still low, especially in student understanding. In this regard, the effort made to improve the quality of PBM (Teaching and Learning Process) in an effort to increase students' understanding of concepts in economics learning materials is the use of the Think Pair Share (TPS) cooperative learning method in learning. This method is a method that is considered creative and innovative and can be an effective solution to increase students' understanding of economics learning material (Sitopu et al., 2021).

The purpose of this study was to obtain the following findings: (1) Differences in students' understanding of cooperative concepts before and after using the Think Pair Share (TPS) cooperative learning model. (2) Differences in the increased understanding of students' cooperative concepts in the experimental class using the Think Pair Share (TPS) cooperative learning model with the control class using conventional learning models. (3) The effect of motivation on increasing students'

understanding of cooperative concepts in the experimental class and control class. (4). The interaction between the learning methods used and students' learning motivation on students' understanding of concepts (Handayani & Yanti, 2017).

METHOD

This research is a quasi-experimental study conducted at class X SMA Negeri 14 Bandung which is located at Jalan Yudhawastu Pramuka IV Bandung. SMA class X SMA Negeri 14 Bandung. consists of 3 classes consisting of X IIS -1 with a total of 40 students, X IIS -2 with a total of 38 students and X IIS - 3 with a total of participants teach as many as 38 people. The control class and the Experiment class are class X IIS - 2 and X IIS -3.

The form of this research design uses a 3 x 2 factorial design. The first factor is cooperative learning with think pair share (TPS) techniques and conventional learning. While the second factor is the learning motivation of students which is divided into three categories: high, medium, and low (Solikhah & Budiharso, 2019). The research procedure has several stages and the first stage in this study is the preliminary stage which begins with seeking information related to the teaching and learning process in economics subjects at SMA Negeri 14 Bandung in order to obtain the phenomena and problems faced by educators in economics learning.

Preparation is the second stage in this research. At this preparatory stage the researcher makes a research design, designs test kits, questionnaires and prepares an economic learning plan. In the third stage, implementation is carried out. The implementation is carried out after the preparatory process is completed. Student learning outcomes are collected by administering an Economics learning achievement test to each student, the learning achievement test technique used is Multiple Chois (multiple choice). Meanwhile, students' learning motivation was obtained by filling out a learning motivation questionnaire. Thus the data collection method in this study is to use the test and questionnaire methods (Nwaukwa & Okolocha, 2020). Analysis prerequisite test used normality test, homogeneity, t-test and two way ANOVA from pretest and posttest data (Assunção Flores & Gago, 2020).

RESULT AND DISCUSSION

The test questions for this concept comprehension test consist of 20 questions in the form of multiple choices. Based on the test results, there were 15 valid questions and 5 invalid questions. The number of questions used for the pretest and post test totaled 15 questions. After doing the calculations, the multiple choice test reliability coefficient is 0.769 , which means that the questions in the tested test have high reliability.

The description of the acquisition of the average score of the pretest results for each category from understanding the concept of per-item questions which include Translation, Interpolation, and Extrapolation in the experimental class can be seen in table 4.2 above and it can be seen that the average value of the pretest score in the Translation category is found in on item questions 3,4,8,10,11,15 of 3.94 with a standard deviation of 1.04 and with a minimum score of 1.00 and a maximum score of 5.00 . Furthermore, in the Interpolation category for item 2,5,12,14 it is 1.94 with a standard deviation of 0.76 and a minimum score of 1.00 and a maximum score of 4.00 in the Extapolation category for item questions 1,6,7,9, 13 of -2.73 with a standard deviation of 0.68 and a minimum score of 2.00 and a maximum score of 4.00. And it can be concluded that in the experimental class the highest average pretest score is in the

translation category and the smallest average value is in the interpretation category . This shows that most of the students in the experimental class have a better understanding of translation in terms of understanding something and being communicated in their own language or expressed from one language to another .

The average score in the experimental class before the TPS learning method was applied was 7.63 with a standard deviation of 1.651 and a variance of 2.725, while in the control class the average score was 6.29 with a standard deviation of 1.659 and a variance of 2.75. This data shows that the average pretest score in the control class is 6.29 lower than the experimental class, so this indicates that the learning motivation in the experimental class is higher than in the control class.

The average score of the pretest results for each category from understanding the concept of per-item questions which include translation, interpretation, and extrapolation in the experimental class can be seen in table 4.5 above and it can be seen that the average value of the pretest score in the translation category is found in the item questions 3,4,8,10,11,15 of 3.94 with a standard deviation of 1.16 and with a minimum score of 2.00 and a maximum score of 6.00. Furthermore, in the Interpolation category for item 2,5,12,14 it is 3.05 with a standard deviation of 0.80 and a minimum score of 2.00 and a maximum score of 4.00 in the Extapolation category for item questions 1,6,7,9, 13 of 3.55 with a standard deviation of 0.97 and with a minimum score of 2.00 and a maximum score of 5.00. in the experimental class the average pretest score the largest is in the translation category and the smallest average value is in the interpretation category . This shows that most students in the experimental class have a better understanding of translation in terms of understanding something and being communicated in their own language or expressed from one language to another (Apriyanti & Ayu, 2020).

the average score in the experimental class before the application of the Think Pair Share (TPS) learning method was 11.50 with a standard deviation of 2.345 and a variance of 5.500 while in the control class the average score was 7.92 with a standard deviation of 1.865 and a variance of 3.480. This shows that there is a change in the average pretest and posttest scores.

Table 1. Data Normality Test Results for Understanding Students' Concepts

Data	Kolmogorov-Smirnov(Z)			H_0	Conclusion	
	Statistics	Df	Sig.		Normality	Statistic test
Experiment Class: *Pretest*	0.167	38	0.009	Rejected	Data Not Normal Distributed	Nonparametrc: *Wilcoxon Signed Ranks Test*
Posttest	0.123	38	0.132	Rejected		
N-Gain : Experiment Class	0.091	38	0.042	Rejected	Data is not Distributed	Nonparametric: *Wilcoxon Signed Ranks Test*
Control Class	0.145	38	0.200	Accepted		

The increase in students' conceptual understanding in the experimental class has an average N-Gain greater than the average N-Gain value of the control class, namely 0.63 with a standard deviation of 0.36, while in the control class the average N-Gain value is only 0 .14 with a standard deviation of 0.32. The increase in students'

conceptual understanding in the experimental class using the Think Pair Share (TPS) method was higher than the conventional method in the control class (Sari et al., 2022). There is a difference in the increase in understanding between the experimental class and the control class of 0.49, an increase of almost 49%.

CONCLUSION

The average learning motivation scores of 38 students were in the middle and high categories in the experimental class and the control class. In the experimental class the average score of students was 71.62 which was in the medium learning motivation category with a standard deviation of 5.79 and the average score of student learning motivation was 84.68 which was in the high learning motivation category with a standard deviation of 3.19 while in control class students' learning motivation in the medium category was 69.93 with a standard deviation of 6.36 and students' learning motivation in the high category was 83.60 with a standard deviation of 3.20. shows that the learning motivation of students in the experimental class and the control class is in the high category and shows that the lowest student learning motivation is in the medium category. That is, there are no students who have low learning motivation.

REFERENCES

Alashwal, M. (2020). Curriculum development based on online and face-to-face learning in a Saudi Arabian University. *Journal of Curriculum and Teaching*, *9*(3), 141–148. https://doi.org/http://www.sciedupress.com/journal/index.php/jc

Alhamuddin, Fanani, A., Yasin, I., & Murniati, A. (2020). Politics of Education in Curriculum Development Policy in Indonesia from 1947 to 2013: A Documentary Research. *Jurnal Pendidikan Islam*, *9*(1), 29–56. https://doi.org/10.14421/jpi.2020.91.29-56

Apriyanti, D., & Ayu, M. (2020). Think-Pair-Share: Engaging Students in Speaking Activities in Classroom. *Journal of English Language Teaching and Learning*, *1*(1), 13–19. https://doi.org/https://doi.org/10.33365/jeltl.v1i1.246

Ardiyani, S. M., Gunarhadi, G., & Riyadi, R. (2019). The impact of think pair share model on mathematics learning in elementary schools. *Journal of Education and Learning (EduLearn)*, *13*(1), 93–97. https://doi.org/https://doi.org/10.11591/edulearn.v13i1.8427

Assunção Flores, M., & Gago, M. (2020). Teacher education in times of COVID-19 pandemic in Portugal: national, institutional and pedagogical responses. *Journal of Education for Teaching*, *46*(4), 507–516. https://doi.org/10.1080/02607476.2020.1799709

Basalamah, M. S. A., & As'ad, A. (2021). The Role of Work Motivation and Work Environment in Improving Job Satisfaction. *Golden Ratio of Human Resource Management*, *1*(2), 94–103. https://doi.org/10.52970/grhrm.v1i2.54

Dewi, N. K. T. Y., Sugiarta, I. M., & Parwati, N. N. (2021). Implementasi Model Pembelajaran Kooperatif Tipe Think Pair Share (TPS) Berbantuan Alat Peraga untuk Meningkatkan Pemahaman Konsep Matematika Siswa. *Journal of Education Action Research*, *5*(1), 40–47. https://doi.org/10.23887/jear.v5i1.31789

Efendi, R., Rifa'i, M. N., Bahrun, K., Milla, H., & Suharmi, S. (2020). The mediation of work motivation on the effects of work discipline and compensation on performance batik msmes employees in yogyakarta city, indonesia. *International Journal of Multicultural and Multireligious Understanding*, *7*(1), 689–703. https://doi.org/http://dx.doi.org/10.18415/ijmmu.v7i1.1375

Fahmi, P., Saluy, A. B., Safitri, E., Rivaldo, Y., & Endri, E. (2022). Work Stress Mediates Motivation and Discipline on Teacher Performance: Evidence Work from Home Policy. *Journal of Educational and Social Research*, *12*(3), 80. https://creativecommons.org/licenses/by-nc/4.0/

Handayani, R. D., & Yanti, Y. (2017). Pengaruh model pembelajaran kooperatif tipe think pair share terhadap hasil belajar PKn siswa di kelas IV MI Terpadu Muhammadiyah Sukarame Bandar Lampung. *TERAMPIL: Jurnal Pendidikan Dan Pembelajaran Dasar*, *4*(2), 107–123. https://doi.org/https://doi.org/10.24042/terampil.v4i2.2220

Jatmiko, A., Kartina, Y., Irwandani, I., Fakhri, J., Pricilia, A., & Rahayu, T. (2018). Reading Concept Map-Think Pair Share (Remap-TPS) Learning Model on Cognitive Ability and Scientific Attitude. *Jurnal Keguruan Dan Ilmu Tarbiyah*, *3*(2). https://doi.org/10.24042/tadris.v3i2.3184

Kurniawan, D., Wahyuningsih, T., & Normala Sari, D. (2020a). Pengaruh Model Pembelajaran Kooperatif Tipe Think Pair Share dengan Menggunakan Power Point Terhadap Hasil Belajar Matematika. *JURNAL PENDIDIKAN MATEMATIKA (KUDUS)*, *3*(1), 69. https://doi.org/10.21043/jpm.v3i1.7149

Kurniawan, D., Wahyuningsih, T., & Normala Sari, D. (2020b). Pengaruh Model Pembelajaran Kooperatif Tipe Think Pair Share dengan Menggunakan Power Point Terhadap Hasil Belajar Matematika. *JURNAL PENDIDIKAN MATEMATIKA (KUDUS)*, *3*(1), 69. https://doi.org/10.21043/jpm.v3i1.7149

Liunokas, Y. (2019). The use of think, pair and share (TPS) strategy in teaching reading skill. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, *7*(2). https://doi.org/http://dx.doi.org/10.24256/ideas.v7i2.1020

Nainggolan, E., Sidabutar, Y. A., & Pasaribu, S. (2022). Pengaruh Metode Think Pair Share (TPS) terhadap Hasil Belajar Tematik Subtema Hidup Rukun di Sekolah pada Siswa Kelas II UPT SD Negeri 13 Pahang. *Jurnal Pendidikan Dan Konseling (JPDK)*, *4*(5), 7072–7082. https://doi.org/https://doi.org/10.31004/jpdk.v4i5.7853

Nwaukwa, F. C., & Okolocha, C. C. (2020). Effect of think-pair-share instructional strategy on students' academic achievement and self-efficacy in financial accounting in Abia State. *International Journal of Recent Innovations in Academic Research*, *4*(1), 37–48.

Purba, D., Sulistia, F., & Lelyana Br. Manurung, Herman, V. (2021). Sociolinguistics Analysis on Language Style Form at the Movie Script of Papillon. *Trends Journal of Sciences Research*, *1*(1), 37–45. https://doi.org/10.31586/ujssh.2021.110

Ramadhani, S. P. (2017). Pengaruh Pendekatan Cooperative Learning Tipe (TPS) Think, Pair, and Share Terhadap Hasil Belajar PKn di Sekolah Dasar. *Premiere Educandum : Jurnal Pendidikan Dasar Dan Pembelajaran*, *7*(02), 124. https://doi.org/10.25273/pe.v7i2.1653

Rosdi, I. (2020). Meningkatkan Minat dan Hasil Belajar Siswa Pada Mata Pelajaran Ekonomi Melalui Pembelajaran Kooperatif Tipe TPS (Think Pair Share). *Indonesian Journal of Social Science Education (IJSSE)*, *2*(2), 191–198. https://doi.org/http://dx.doi.org/10.29300/ijsse.v2i2.3419

Saraswati, D. L., Sari, T. A., Kameswari, D., Solihatun, S., Sirait, E. D., Apriyani, D. D., Alfi, Z. R., Nazelliana, D., Ardy, V., & Rahmawati, N. D. (2021). The influence of Think-Pair-Share (TPS) cooperative learning methods on the results of studying physics assessed from student attention. *Journal of Physics: Conference Series*, *1816*(1), 12075. https://doi.org/10.1088/1742-6596/1816/1/012075

Sari, A. S. P., Sembiring, N., & Wau, K. (2022). Improving students' vocabulary mastery on synonyms through the application of Think Pair Share (TPS) technique. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, *5*(2). https://doi.org/https://doi.org/10.33258/birci.v5i2.5561

Scales, P. C., Van Boekel, M., Pekel, K., Syvertsen, A. K., & Roehlkepartain, E. C. (2020). Effects of developmental relationships with teachers on middle-school students' motivation and performance. *Psychology in the Schools*, *57*(4), 646–677. https://doi.org/10.1002/pits.22350

Schjøler, C. H. (2019). Effekten af online quizzer og think-pair-share. *Teaching for Active Learning 2018*, 4–6. https://www.sdu.dk/en/tal2018

Sitopu, Y. B., Sitinjak, K. A., & Marpaung, F. K. (2021). The Influence of Motivation, Work Discipline, and Compensation on Employee Performance. *Golden Ratio of Human Resource Management*, *1*(2), 72–83. https://doi.org/10.52970/grhrm.v1i2.79

Solikhah, I., & Budiharso, T. (2019). Investigating the learning outcomes of an INQF-based English language teaching curriculum in Indonesia. *Journal of Social Studies Education Research*, *10*(4), 153–175.

Styers, M. L., Van Zandt, P. A., & Hayden, K. L. (2018). Active learning in flipped life science courses promotes development of critical thinking skills. *CBE—Life Sciences Education*, *17*(3), ar39. https://doi.org/https://doi.org/10.1187/cbe.16-11-0332

Sulianto, J., Purnamasari, V., & Febriarianto, B. (2019). Pengaruh Model Pembelajaran Think-Pair-Share terhadap Hasil Belajar Siswa Kelas V (Lima) Materi Organ Tubuh Manusia dan Hewan. *International Journal of Elementary Education*, *3*(2), 124. https://doi.org/10.23887/ijee.v3i2.18515