



THE EFFECT OF PLICKERS-ASSISTED TEAM GAMES TOURNAMENT ON STUDENTS' LEARNING OUTCOMES AND CHARACTERS IN SOCIAL SCIENCE LEARNING SUBJECT

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PENGARUH MODEL PEMBELAJARAN *TEAM GAMES TOURNAMENT* BERBANTUAN MEDIA *PLICKERS* TERHADAP HASIL BELAJAR DAN KARAKTER SISWA PADA PEMBELAJARAN IPS

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ABSTRACT

Abstract: This paper (1) describes students' character values through the Team Games Tournament learning model assisted by Plickers media, (2) describes students' learning outcomes through the Team Games Tournament learning model assisted by media Plickers, and (3) describes the effect of the Plickers media-assisted Team Games Tournament learning model on students' character values and learning outcomes simultaneously. The research is quasi-experimental research with a non-equivalent control group design. The population of the research was all the fifth-grade students of SD Cluster 1 in Manuju. Through random sampling technique, the researcher selected the fifth-grade students of SD Inpres Pattallikang and SD Inpres Tanakaraeng as research samples. Data were collected through questionnaires and tests, and subsequently analyzed through t-test (paired sample t-test). The research results indicate that there were differences in students' character values and social science learning outcomes in the control and experimental classes. The average character values and learning outcomes in the experimental class were higher than the control class. Thus, it can be concluded that the Team Games Tournament learning model influences the character values and students' social science learning outcomes.

Keywords: team games tournament, plickers, students' learning outcomes, students' character value

Abstrak: Artikel ini (1) mendeskripsikan nilai karakter murid melalui model pembelajaran *Team Games Tournament* berbantuan media *Plickers*, (2) mendeskripsikan hasil belajar murid melalui model pembelajaran *Team Games Tournament* berbantuan media *Plickers*, dan (3) mendeskripsikan pengaruh model pembelajaran *Team Games Tournament* berbantuan media *Plickers* terhadap nilai karakter dan hasil belajar IPS murid secara simultan. Penelitian merupakan penelitian kuasai eksperimen dengan desain penelitian *nonequivalent control group*. Populasi penelitian adalah seluruh murid kelas V SD Gugus 1 Kecamatan Manuju. Melalui teknik random sampling, peneliti memilih murid kelas V SD Inpres Pattallikang dan SD Inpres Tanakaraeng sebagai sampel penelitian. Pengumpulan data dilakukan melalui teknik angket dan tes dan dianalisis melalui uji t (*paired sample t-test*). Hasil penelitian menunjukkan terdapat perbedaan nilai karakter dan hasil belajar IPS murid di kelas kontrol dan kelas eksperimen. Rata-rata nilai karakter dan hasil belajar di kelas eksperimen lebih tinggi dari pada kelas kontrol. Sehingga dapat disimpulkan bahwa model pembelajaran *Team Games Tournament* berpengaruh terhadap nilai karakter dan hasil belajar IPS murid.

Kata Kunci: team games tournament, plickers, karakter dan hasil belajar siswa

CITATION

Ali, M., Muslimin, A. A., & Basri, M. (2023). The Effect Of Plickers-Assisted Team Games Tournament On Students' Learning Outcomes And Characters In Social Science Learning Subject. *Primary: Jurnal Pendidikan Guru Sekolah Dasar*, 12 (4), 1034-1043. DOI: <http://dx.doi.org/10.33578/jpfkip.v12i4.9326>.

INTRODUCTION

Welcoming the 21st century, education plays an important role in building, developing, and strengthening the character of students. As an effort to overcome the character crisis as a result of globalization, the government emphasizes character education in schools. Character education is interpreted as an effort to encourage students to think, stick to, and dare to grow and develop the moral principles of life, even when facing challenges, it can be done. Character education is not limited to the transfer of knowledge about good values, but includes ways to ensure that these values survive and are manifested in thoughts and actions. Many moral values need to be instilled in children (Ramdhani, 2017). The eighteen character values are religious, honest, tolerance, discipline, hard work, creative, independent, democratic, curiosity, national spirit, love for the motherland, respect, friendship or communicative, love peace, love to read, care for the environment, social care and responsibility (Kemendikbud, 2013)

School as an institution that plays an important role in instilling and developing moral values in life so that the school period is a period of personality formation which greatly determines one's moral-intellectual foundation (Nenowati et al, 2021). One of the subjects that acts as a medium for developing student character is Social Sciences (IPS). This is based on the social studies function in elementary schools, namely developing basic knowledge and skills to see the social reality faced by students in everyday life and fostering a sense of pride in the development of society from the past and present (Susanto, 2016). Muslimin (in Nenowati, 2021) explains that through social studies learning, teachers are expected to be able to instill positive values in students in accordance with the essence of social studies learning, namely learning is not just transferring knowledge but also transferring values. But in reality, IPS learning does not work that way. Based on the results of

pre-research observations, teachers still use the lecture method in teaching and the material presented only contains the realm of knowledge without integrating the values contained in the learning material. So that social studies learning does not go according to its purpose. This also causes IPS to be a boring subject for students so that the acquisition of social studies learning outcomes for students is still a lot under the complete category. Therefore, teachers need to use appropriate approaches, methods, models, and media in social studies learning so that all aspects of social studies learning can be channeled and students also become more interested.

One learning model that is considered appropriate in learning is the team games tournament (Irviana, 2016; Santosa, 2018; Luthfiyah, 2020). The research results show that the team games tournament learning model has a significant effect on student learning outcomes and activeness. Team games tournament is a learning model that groups students into several small groups and each group will compete to complete the tasks given by the teacher. The focus of the activities includes class presentations, group study, games, competitions or competitions, and giving group awards. In this learning model, of course there are rewards and punishments for those who win and lose (Faturrohman, 2015).

The application of the team games tournament model to make it more effective is assisted by learning media. To make it more interesting, the right learning media is plickers media. Media plickers is an application to display quizzes in an interesting way. The use of plickers media in learning will also help students apply the value of honesty because the plickers application feels comfortable answering questions honestly because each student will be given a different card code so that privacy is better maintained (Setiyani, Sumbawati, 2019). Based on this description, through this research, researchers will prove whether the learning model of team games tournament assisted by media plickers has an

effect on learning outcomes and students' character in social studies learning.

THEORITICAL REVIEW

Team games tournament or TGT is a type of cooperative learning. In cooperative learning of the Team Games Tournament (TGT) type, students are required to cooperate with each other, be active and responsible for themselves and their groups (Nugroho, 2018). In addition, in TGT learning, students are faced with a game and competition, so that the willingness and ability of students changes. This definition is in line with the opinion of Slavin (2015) who argues that TGT is cooperative learning that uses academic tournaments, quizzes and an individual progress score system, where students compete as representatives of their team with other team members whose previous academic performance was equal to them.

Through several previous studies, TGT was stated to be able to improve student learning outcomes (Maharani, 2020; Safarani, 2018; Wardani, 2022). Based on the learning steps, the TGT learning model does look interesting and challenges students so that this will motivate students to learn. that way, learning outcomes will increase. This is in accordance with the procedure in team games tournament learning, namely students playing academic games with other team members to contribute points in their group (Sudimahayasa, 2015). The steps for organizing a tournament in TGT (Slavin, 2015) are as follows:

- a. prepare numbered question sheets and answer sheets;
- b. put the questions and answers back on the tournament table;
- c. determining the readership of players and challengers;
- d. player 1 takes the question number and gives it to the question reader;
- e. the question reader takes the questions according to the number that already exists;

- f. player 1 must read the questions, if player 1 cannot answer the questions then the other players can answer the questions;
- g. the officer who reads the questions about taking numbers and being player 1 is always rotated so that all team members get the same task;
- h. if one of the players can answer the question correctly, then the question card will be taken by the question answerer, but if the players cannot answer the question then the question card is left alone.

In order for an effective learning process, of course it must be supported by learning media. The use of learning media will affect the quality of learning because through learning media students can capture information by involving various senses (Tafonao, 2018). The rapid development of technology and education in the 21st century has spawned various technology-based learning media such as power points, e-books, e-learning, to online quizzes (Nursidiq & Batubara, 2022).

One of the online quiz media is plickers. Plickers is an application used to evaluate learning using smartphones and coded cards (Arzfi et al, 2022). This is in line with the opinion of (Saptiyah, 2021) that plickers are a very simple application that is used to find out the results of a student's knowledge test in the form of multiple choices and the results can be known quickly. An application that can be used by educators easily to assist educators in conducting formative assessments by using the Plickerscard that is owned by each student so that it can assist educators in assessing student evaluation results (Yulanda, 2019).

Each Plickers card has a unique and simplified design labeled A, B, C, and D on each side. During class, teachers use their phones to ask multiple choice or true-false or multiple-choice questions to the class via the Plickers web. The Students then hold up their

Plickers cards with the answers shown on the top of the cards. get the result.

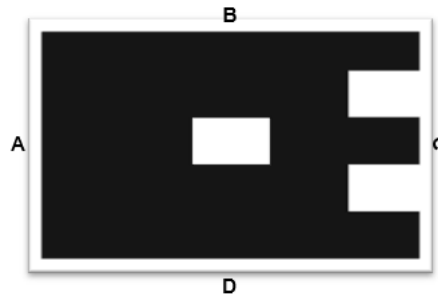


Figure 1. An example of a Plickers Card

Before class takes place, the teacher must create an account and prepare questions on the plickers web www.plickers.com. The steps for implementing the use of clickers are as follows:

A. Part I

1. Enter the Plickers website, then sign up or register for an account. You can register using your Google account.
2. After successful registration, there will be two options, namely Demo and Add New Class, here I choose "add new class"
3. Fill in the class name, class level up to the color for each class then click save.
4. Write down the student's name, for example Rudi Hartanto, then enter. Next, add another student's name until it's finished with the same steps. For example, I enter three names of students.
5. Enter the library menu
6. Add questions by selecting "new question"
7. On the New Question page, select the type of question, whether it is multiple choice or true/false then fill in the question in the column provided, also check the correct answer. Click save and create new.
8. Questions will appear in your previously created library.
9. Then select the cards menu, in the following display, I chose the standard card, because we chose the free version.
10. Congratulations, your Clickers card can be downloaded. Print the card and pay

attention to the small code that is around the card.

B. Part II

1. Install your smartphone or tablet with the Plickers App via Playstore (if using Android OS) then sign in with the account that was created.
2. Ask a question to the student, the student will raise their plicker card to answer your question, then with the plicker app, select the question you want to use and scan the room by selecting the camera button which will appear at the bottom of the screen. You will see the child's name and their respective answer to each selected question at the top of the screen on the smartphone when their responses are scanned.
3. If you are using a projector, you can display a bar graph to see the overall group data and the number of students who have responded.

The use of plickers can facilitate students to answer honestly because the answers given by each student are private in the plickers card. In addition, the assessment of answers is carried out simultaneously by holding up a plicker card containing a QR code or barcode (Kent, 2019).

METHOD

This research is a quasi-experimental research with nonequivalent control group design. The population in the study were all fifth grade elementary school students in

Cluster I, Manuju District, Gowa Regency, South Sulawesi, consisting of 132 students. Through random sampling, the researchers determined SD Inpres Pattallikang and SD Inpres Tanakaraeng as research samples, totaling 50 students. Data collection was carried out through questionnaires and tests with research instruments using questionnaires and test results. Data analysis includes descriptive analysis and inferential analysis. Inferential analysis includes prerequisite test and hypothesis test. Prerequisite test consists of normality test and homogeneity test; while

the hypothesis testing was carried out through a paired sample t-test with the help of the SPSS 21 for windows application

RESULT AND DISCUSSION

Learning Outcomes

Learning outcomes data is collected through test techniques. The test was carried out twice, namely pretest and posttest in both the control and experimental classes. The following presents the results of the analysis of learning outcomes in the control class and the experimental class.

Table 1. Categorization of Student Learning Outcomes in the Control Class

Range	Category	Pretest		Posttest	
		Frequency	Percentage	Frequency	Percentage
93 – 100	Very High	0	0%	0	0%
84 – 92	High	10	40%	12	48%
75 – 83	Moderate	9	36%	12	48%
< 75	Low	6	24%	1	4%
Total		25	100	25	100

Source: (Data Processing, 2022)

Based on table 1, student learning outcomes are divided into 4 categories, namely very high, high, medium, and low. At the pretest stage, 10 students or 48% were in the high category, 9 or 36% students were in the medium category and 6 students or 24% were

in the low category. As for the posttest stage, there was a slight increase, namely in the high category it increased to 12 students or 48%, in the medium category there were 12 students or 48% and 1 student or 4% remained in the low category.

Table 2. Categorization of Student Learning Outcomes in Experimental Class

Range	Category	Pretest		Posttest	
		Frequency	Percentage	Frequency	Percentage
93 – 100	Very High	0	0%	0	0%
84 – 92	High	15	60%	25	100%
75 – 83	Moderate	7	28%	0	0%
< 75	Low	3	12%	0	0%
Total		25	100	25	100

Source: (Data Processing, 2022)

Based on table 2, the categories of student learning outcomes in the experimental class at the pretest stage were not much different from the pretest stage in the control class. At the pretest stage, as many as 15 students or 60% were in the high category, 7 or 28% of students were in the medium category

and 3 or 12% of students were in the low category. As for the posttest stage, there was a significant increase, namely in the high category it increased to 100% or all students felt in the high category.

The results of the analysis in the control class and the experimental class related

to learning outcomes show very significant differences. In the control class, the categories of student learning outcomes varied. A total of 12 students are in the medium and high categories and 1 student is in the low category. Meanwhile, in the experimental class, there was only one category of student learning outcomes, namely the high category. This means that all students in the experimental class get high scores. So it can be concluded that the learning model of team games

tournament assisted by media plickers has an effect on social studies learning outcomes for fifth grade students.

Character Value

Student character values in this study were obtained through a questionnaire technique. The results of the student character value questionnaire analysis are presented in the following table.

Table 3. Categorization of Student Character Values in the Control Class

Range	Category	Frequency	Percentage
81% – 100%	Very High	2	8%
61% – 80%	High	22	88%
41% – 60%	Moderate	1	4%
0% - 40%	Low	0	0%
Total		25	100

Source: (Data Processing, 2022)

Based on table 3, the character values of students in the control class vary. A total of 2 students are in the very high category, 22 students are in the high category, and 1 student

is in the medium category. Next, the results of the questionnaire analysis of student character values in the experimental class are presented.

Table 4. Categorization of Student Character Values in the Experimental Class

Range	Category	Frequency	Percentage
81% – 100%	Very High	22	88%
61% – 80%	High	3	12%
41% – 60%	Moderate	0	0%
0% - 40%	Low	0	0%
Total		25	100

Source: (Data Processing, 2022)

Based on table 4 it can be seen that students who are in the category of very high character values are 22 students or 88%. Students in the high category are 3 students or 12%. These results indicate that the character values of students in the experimental class are mostly at a very high quality level of character values.

high category of student character values, while in the experimental class, there were 22 students in the very high category. This shows that there is a significant difference between the control class and the experimental class.

The results of the questionnaire analysis of student character values in the control class and the experimental class can be seen that there are differences. In the control class, there were only 2 students in the very

Normality Test

The normality test was carried out to see whether the data to be analyzed was normally distributed or not. The normality test in this study used the Kolmogorof Smirnov one sample with the help of SPSS. The normality test is carried out on the character

values and student learning outcomes. The results show that the distribution of variables in this study has been normally distributed. This shows that the data is feasible to use.

Homogeneity Test

Homogeneity test is used to determine whether the variances of the two data are the

same or not. In addition, this test was carried out as a prerequisite in the analysis of paired t-test for two related samples. In this study, researchers conducted a homogeneity test using the SPSS 21 for Windows computer program.

Table 5. Pretest Character Value Homogeneity Test Results

Class	Lavene Statistik	df1	df2	Sig.	Significant Levels	(Sig>0,05)
Experiment and Control	0,049	1	48	0,826	0,05	Homogeneous

Source: (Data Processing, 2022)

Table 6. Posttest Character Value Homogeneity Test Results

Class	Lavene Statistik	df1	df2	Sig.	Significant Levels	(Sig>0,05)
Experiment and Control	0,043	1	48	0,513	0,05	Homogeneous

Source: (Data Processing, 2022)

Based on the results of the analysis, the character values at the pretest and posttest stages obtained a significance value of 0.826 and 0.513 respectively > from the sig. 0.05. This proves that the data on student character values at the pretest and posttest stages is homogeneous.

Furthermore, a homogeneity test of student learning outcomes was carried out both at the pretest and posttest stages. The following shows the results of the homogeneity test analysis of student learning outcomes.

Table 7. Homogeneity Test Results Pretest Learning Outcomes

Class	Lavene Statistik	df1	df2	Sig.	Significant Levels	(Sig>0,05)
Experiment and Control	0,049	1	48	0,825	0,05	Homogeneous

Source: (Data Processing, 2022)

Table 8. Homogeneity Test Results of Posttest Learning Outcomes

Class	Lavene Statistik	df1	df2	Sig.	Significant Levels	(Sig>0,05)
Experiment and Control	2,872	1	48	0,097	0,05	Homogeneous

Source: (Data Processing, 2022)

Based on tables 7 and 8 it can be seen that the sig. the learning outcomes of the pretset and posttest stages were respectively

0.825 and 0.097 > sig. 0.05. So it can be concluded that the data on learning outcomes is homogeneous. Because the data has fulfilled

the prerequisite test, the data analysis can be continued at the hypothesis testing stage.

Hypothesis Test

Hypothesis testing is done through paired t-test. The t-test was carried out to see the effect of the team games tournament learning model on learning outcomes and student character values.

Table 9. Character Value Hypothesis Test

Class	Sig. (2-tailed)	Significant Levels	(Sig<0,05)
Experiment	0,000	0,05	H1 accepted
Control	0,000		

Source: (Data Processing, 2022)

Based on the table above, it is known that the significance value of the final character value of the experimental class is 0.000 and that of the control class is 0.000. These results indicate that the significance value is greater than 0.05 so that Ho is rejected and H1 is accepted. The influence of the team games tournament learning model assisted by

media plickers on the character values of students in social studies class V SD in Manuju District, Kab. Gowa.

While testing the hypothesis of student learning outcomes in the experimental class and control class are presented in the following table.

Table 10. Learning Outcomes Hypothesis Test

Class	Sig. (2-tailed)	Significant Levels	(Sig<0,05)
Experiment	0,000	0,05	H1 diterima
Control	0,000		

Source: (Data Processing, 2022)

Based on table 10 above, the significance value of the experimental class student learning outcomes is 0.000 and that of the control class is 0.000. These results indicate that the significance value is greater than 0.05 so that Ho is rejected and H1 is accepted, which means that there is an influence of the media plickers-assisted team games tournament learning model on student learning outcomes in social studies learning.

Based on the results of the study, it can be concluded that the team games tournament learning model influences learning outcomes and student character in social studies class V SD in Manuju District, Kab. Gowa. The results of this study are in line with several previous studies which prove that the team games tournament learning model can improve student learning outcomes (Maharani,

2020; Safarani, 2018; Wardani, 2022). The influence of the team games tournament learning model on student learning outcomes seems to be influenced because in this learning students are motivated and challenged to compete with other students to get higher scores. This is in accordance with the procedure in team games tournament learning, namely students playing academic games with other team members to contribute points in their group (Sudimahayasa, 2015). In addition, the plickers media used in this lesson also play a significant role in improving student learning outcomes. This is because the media plickers are interactive and fun for students. As said by Solmaz and Cetin (2017) that clickers are technology-based interactive learning media by sending responses to students via

computers, mobile devices, and cards with QR codes (barcodes).

This study also proves that the learning model of team games tournament assisted by plickers media has an effect on student character, namely honesty. This is because the team games tournament model requires students to work together and be responsible for their groups (Nugroho, 2018) and plickers media make students feel comfortable in answering questions honestly because each student will be given a different card code so that privacy is maintained (Setiyani, Sumbawati, 2019). This is in line with the results of research by Alifa et al (2020) regarding the analysis of the use of plickers in reducing the culture of cheating. The results of this study indicate that media plickers can reduce the culture of cheating, although it cannot completely reduce it.

This study has proven that the learning model of team games tournament assisted by media plickers has an effect on learning outcomes and student character in social studies learning in grade V. Therefore, this learning model and media can be a solution for teachers in implementing more interesting and effective learning in class. . With this learning model it is hoped that the freedom and activeness of students will increase, so that students will be happy in following the lessons.

CONCLUSION AND RECOMENDATION

Based on the results of the study, it can be concluded that the learning model of team games tournament assisted by media plickers has an effect on learning outcomes and the character of student participants in social studies learning in class V. However, the use of this model and media must be adapted to the teaching materials and student criteria. In addition, in order for learning to run effectively, the teacher must ensure that there are no technical problems in the use of media plickers.

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