

The Effectiveness of the Two Stay Two Stray Model using Pocket Number Media in Social Sciences Subjects

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Abstract

The purpose of this study was to determine the effectiveness of the Two Stay Two Stray (TSTS) learning model using Number Pocket media on social studies subjects in grade IV Public Elementary School 01 Adipala, Cilacap. The method in this study was an experimental method with a sample of grade IV A as an experimental class and grade IV B as a control class. The sampling technique was applied in this study is research design was used pre-test – post-test control group design. The data collection techniques to determine the increased in the interest using the student learning interest is questionnaires, whereas, to measure the achievement of students using evaluation questions (pre-test – post-test). Based on the results of the hypothesis test, interest data and student achievement showed that $2.805 > 2.06$, therefore, it can be said that there are differences in the interest and learning achievement between the control class and the experimental class. Based on the results of the student learning interest data showed that the significance value ($0.000 < 0.05$). Meanwhile, the results of the student achievement test hypothesis showed that the significance value ($0.000 < 0.05$). Based on these data, it can be concluded that the application of the TSTS model assisted with Number Pocket media is more effective on students' interest and learning achievement in social studies subjects in grade IV.

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INTRODUCTION

Social studies learning in elementary schools is to build interests and abilities possessed as goals that can later be used to continue school to a higher level. This is similar to the explanation stated by Solihatin, and Raharjo (2008) where basically the purpose of social studies education is to educate and provide basic abilities for students to develop themselves in accordance with their talents, interests, abilities, and environment, as well as provision for students to continue their education to higher level. Social studies subjects are not a very interesting student that is too much memorization material, especially when they have difficulty in past historical or cultural material because they can only imagine it. According to students in grade IV, social studies subjects do not use media such as mathematics and natural sciences that often use media as learning support. According to Dewi (2013) the tendency of teachers to choose learning methods that are less interesting and less interactive will result in the continuity of the learning process. If the learning process is disrupted, it will affect the management of information.

The application of the model in the learning process will certainly increase students' interest and learning achievement during the learning process. Learning achievement is the level of success in a learning process that is expressed in the form of grades or report cards that are used as a form or limitation of students' success in their learning achievements (Dwipayanti, and Indrawati, 2014). The model used should be adapted to the material and abilities of students. The model to be used must be considered in terms of strengths and weaknesses so that the model can be used in the learning process. The similarity to Surjosuseno (2011) teachers of reading become creative and innovative in varying their teaching so that students are not easily bored with the lessons are given in the classroom, and their reading achievement will increase. Innovative learning is one example of a cooperative model. According to Sulisworo, and Suryani (2014) an activity

becomes cooperative learning when the learning environment is oriented to provide activities that support each other between each student. In this activity, students grow together in giving meaning to contextual phenomena.

There are many kinds of fun, innovative learning models. One learning model that is fun and involves students in learning is Two Stay Two Stray (TSTS). Its TSTS can use to create a more enjoyable social study learning atmosphere for students and social studies learning can increase interest and achievement — the similarity to Yusri, Mantasiah, and Jufri (2018) to improve student learning outcomes by using the TSTS learning model. The TSTS learning model can also train collaboration in groups and can train students to respect each other's opinions. Huda (2013) states that: the TSTS learning model is a two stay two stray structure, which is a type of cooperative learning that provides opportunities for groups to share results and information with other groups. This is done since many teaching, and learning activities are colored with individual activities. According to (Septimarmisa, Syamsurizal, and Lufri, 2018) TSTS learning model involves the active role of students in the learning so that students can think critically and analytically to seek and find answers to the problems in the questions.

Furthermore, Manik, and Gafur (2016) stated that based on experience, observations made by the researcher in several schools, there are still many teachers who use conventional learning models in the learning process. Learning process using certain models learning makes students unmotivated and lack active, so it is difficult to understand the material being studied. Learning that has used a more innovative model will be optimal if the media support it as an explanation of various materials that cannot be conveyed by the teacher verbally.

The making of Number Pocket media is another alternative in solving problems in the learning process. The media has an important role as an intermediary to facilitate the learning process to enable communication between the teacher and students. Djamarah, and Zain (2010) said that the benefits of using media in teaching

and learning, especially at the elementary level, are very important since at this time students are still thinking concretely, not yet able to think abstractly fully. Naz, and Akbar (2010) stated that media or learning tools could help teachers transfer knowledge in impressive ways, and design learning more effectively. (Agustiya, Sunarso, and Haryani, 2017) The making game media is another alternative to solving problems; it can be done following the concrete operational stages. The media play an important role as an intermediary to facilitate the teaching and learning process so that communication between teachers and students is effective, the presence of the media is very helpful in understanding certain concepts, which cannot or are less able to be explained by language.

Daryanto (2010) stated that media could increase learning motivation. The new atmosphere in learning is expected to increase student motivation in mastering the material. The purpose of this study is to find out the effectiveness of the implementation TSTS model using Number Pocket media on the interest and achievement of social studies of grade IV Public Elementary School 01 Adipala.

METHODS

The research design used in this experimental study was a quantitative model in the form of Quasi-experimental. Quasi-experimental is an experiment that has a control group. However, it cannot function fully to control the external variables that influence the implementation of the experiment (Sugiyono, 2012). The experimental Quasy form was used the interpretation of post-test control group design. The data collection techniques were used documentation, observation, tests, and questionnaires. The research instrument for the data collection in this study was a test instrument in the form of questions and non-tests in the form of a questionnaire with 30 items. Other supporting instruments are a syllabus, Learning Implementation Plan, questions sheet, and answer key.

The population in this study was the fourth-grade students of Public Elementary School Adipala, Cilacap Regency in the Academic Year of 2018/2019 consisting of 6 schools. The sampling technique was applied in this study random sampling technique. There are Public Elementary School 01 Adipala, Public Elementary School 02 Adipala, Public Elementary School 03 Adipala, Public Elementary School 05 Adipala, Public Elementary School 06 Adipala, Public Elementary School 07 Adipala. The sample of this study was grade IV students of Public Elementary School 01 Adipala, which consisted of 2 classes, grade IV-A, and IV-B, with the total number of 45 students. The experimental group was treated using the application of the TSTS model assisted with Number Pocket media. Meanwhile, the control group was given treatment using the TSTS learning model without the Number Pocket media. The independent variable in this study was the TSTS model, whereas, the dependent variable in this study was student interest and learning achievement, and the moderator variable was the use of Number Pocket media.

RESULTS AND DISCUSSION

Table 1 shows the results of the data on the average score of students 'interest in the learning which can be obtained by using a questionnaire sheet of students' learning interest that was distributed to all students in the experimental class or in the control class at the beginning of learning before giving treatment or at the first meeting. Students who were given questionnaire sheets were 45 students, 23 students in grade IVA, and 22 students in grade IVB. Can be seen in Table 1.

Table 1. The Result of the Average Score of Students Learning Interest

Class	Pre-test (%)	Post-test(%)
Experimental	77.81	91.92
Control	72.68	88.11

Table 2 shows the results of the data obtained from the average score of student

achievement in social studies subjects in grade IV in the material of ethnic and cultural diversity in Indonesia using the evaluation questions in the form of multiple-choice questions with two questions, pre-test and post-test questions which was given in the control class or experimental class. According to Rachmawati, and Ernawati (2018) the mean score of the learning outcomes and student motivation in learning using the TSTS type of cooperative model is higher than the direct model. Similarities to Aritonang (2008) to improve the learning outcomes, teachers can pay attention to the interest and learning motivation as factors that also influence student learning outcomes. Can be seen in Table 2.

Table 2. The Results of the Average Score Students Achievement

Class	Pre-test	Post-test
Experimental	72.56	91.03
Control	69.66	85.02

Table 3. The output of the Difference Score of the Students Learning Interest

F	Sig	t	Mean difference	Sig (2-tailed)
.552	.46	3.17	3.81	.003

Table 3 shows that the significance value was 0.003. The significance value obtained is less than 0.05 ($0.003 < 0.05$). From the calculations with SPSS 16 using the independent sample t-test technique. Therefore, it can be said that there are differences in the interest in the social studies in the learning material of ethnic and cultural diversity in Indonesia between the learning using the TSTS learning model with Number Pocket media, and the learning using TSTS learning model without Number Pocket Media. The learning interest score results were obtained from the interest questionnaire scores consisting of 30 items of statements distributed at the end of the learning. Can be seen in Table 3.

Table 4. The output of the Difference Score of Students Achievement

F	Sig	t	Mean difference	Sig (2-tailed)
3.60	.06	3.83	5.21	.000

Table 4 shows the significance value of < 0.05 ($0.000 < 0.05$) there is a difference in the

learning achievement of social studies in the material of ethnic and cultural diversity in Indonesia between the learning using the TSTS learning model with Number Pocket media, and the learning using the TSTS learning model without Number Pocket Media. The results of student achievement scores were obtained by giving evaluation questions at the end of each learning session. Enjoyable social studies learning will make students feel easier to understand the material delivered by the teacher with the support of the use of Number Pocket media. Good student performance depends on how the teacher presents the material and what innovations are given when learning takes place. According to Aritonang (2008) interest and motivation to learn can be improved by increasing the quality of teaching methods of teachers and teacher characters, creating a calm and comfortable classroom atmosphere, and providing complete learning facilities. Can be seen in Table 4.

Table 5. The output of the Results of One-Sample t-test of Students Interest

df	Sig (2-tailed)	Mean difference
23	.000	91.62

Table 5 shows that the significance value is < 0.05 ($0.000 < 0.05$). Therefore, it can be concluded that the use of the TSTS learning model with Number Pocket media is effective toward the student learning interest in social studies subjects on ethnic and cultural diversity in Indonesia. This result is similar to the research conducted by Lusiana, Setyosari, and Soetjipto (2017) the model can increase social studies motivation of fourth-grade students of Public Elementary School Tawun I Ngawi as evidenced by the increased activity, interaction, trust, and cooperation in the learning activities so that learning activities become more meaningful. Learning based on high interest in each student will gain a learning enthusiasm which can later support students learning achievement, particularly, in the social studies subjects.

This TSTS model provides an opportunity for students to express their opinions and be able to interact with other discussion groups so that

the learning is not only teacher center, which causes students to enjoy the learning and do not feel bored to follow the lesson. This TSTS model creates an atmosphere of learning that actively engages students in groups in a cooperative manner and creates a comfortable, participatory, and more lively learning atmosphere, so that this learning model can encourage higher quality ideas and increase student interest and creativity.

Table 6. The output of the Result of One-Sample t-test of Students Achievement

df	Sig (2-tailed)	Mean difference
22	.000	90.957

Table 6 shows that the significance value ($0.000 < 0.05$) the use of the TSTS learning model with Number Pocket media is effective on student achievement in social studies subject matter of ethnic and cultural diversity in Indonesia. Several ways can be used to improve the quality of education conditions; one of them is by increasing the students' achievement in school. This happened since achievement is an important indicator of the results obtained while attending the education (Forsyth, Story, Kelley, and McMillan, 2009). A fun and innovative learning model will certainly contribute well to the learning process since it is not only providing material to the students but also students can understand carefully about the situations and conditions faced in the future. Reviewing the research, according to Effendi, Soetjipto, and Widiati (2016) the application of the cooperative learning model TSTS and Carousel Feedback to improve social studies motivation and learning outcomes. The results obtained that the TSTS model can improve social studies learning achievement. At the same time, the student can learn from the other student. The learning process with the TSTS model can optimally stimulate and increase student potential in a small group atmosphere consisting of 4 students.

CONCLUSION

The implementation of the TSTS model assisted with the Number Pocket media is more effective on students' interest and learning

achievement in social studies subjects in grade IV; the results of the study indicate this found that the significance value ($0.000 < 0.05$) using the one-sample t-test. The results of the differences in the achievement and interest of the experimental class and the control class showed ($0.003 < 0.005$) with an independent test sample t-test. Based on the conclusions above, suggestions given to teachers who want to increase students' interest and learning achievement of the TSTS model can also be used in other subjects, if the material in the research is developed according to the facts.

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