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Effect of Cooperative Learning Technique Think Pair and Share Developing Cooperation among Secondary School Students in Social Science Classes

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Abstract

Students participate in cooperative learning, which is an educational technique, by working on planned projects in small groups with other classmates. The members of the groups are given instructions on how to collaborate effectively to achieve a goal, find a solution to a problem, finish a project, or manufacture a product. The purpose of this research is to investigate whether or not the think-pair-share (TPS) model of cooperative learning is successful in enhancing students' ability to work together effectively. They will have the opportunity to practise being more forthright and sincere when sharing their opinions if they take part in the exercise known as Think-Pair-Share. This approach helps children improve their interpersonal skills as well as their communication and listening abilities, all of which are beneficial to their overall growth as individuals. Students are able to get insight from the backgrounds and points of view of their peers when they collaborate in groups of two. The members of Class IX-H participated in the study as the experimental group, and the research followed a "before" and "after" format with controls that were not equal. During the course of the analysis, the IX-L cohort served as a reference class. This study employed a method known as purposeful sampling. Collaborative data collecting amongst the students through the use of a survey that is kept anonymous. After the data have been collected, the next step is to conduct a quantitative analysis based on hypotheses. The experimental group that was given therapy had a statistically significant improvement between the "before" and "after" time periods, as shown by the findings. Even though there is a change between "before" and "after" in the non-

therapy control groups, this change does not indicate improvement; rather, it indicates a worsening of the condition. As a result, it is plausible to draw the conclusion that think-pair-share (TPS) models of cooperative learning have an influence on the ability of students to collaborate with one another within the setting of social studies classrooms.

Keywords: student cooperation, cooperative learning, think pair and share (tps) social studies learning

Introduction

The term "cooperative learning" refers to a style of instruction in which students perform a shared task by working together in smaller groups under the direction of the class instructor. Students are afforded the opportunity to put what they are learning into practise in an environment that is more analogous to that of the working world when cooperative learning practises are implemented in the educational setting. The incorporation of core competencies and students' communication and soft skills into the curriculum provides teachers with the opportunity to place an emphasis on these facets of students' development. Because of this, teachers are given the opportunity to direct their students towards achieving both personal and professional success. Today, we will be looking at some different cooperative learning techniques that, due to their adaptable and framework-based design, may be utilised effectively in a broad variety of different educational settings. Cooperative learning, sometimes known as learning in small groups, is one type of instruction that has been demonstrated to assist students in acquiring both content knowledge and the ability to interact well with one another. If you want to have a more pleasant social experience in our classroom, gaining a deeper grasp of cooperative learning will help you do so.

Frank Lyman was the one who originally described TPS back in 1982. Students are encouraged to engage in TPS even if they do not think the subject matter to be especially fascinating (Lyman, 1982; Marzano & Pickering, 2005). This is because TPS is based on the theory that active learning is more effective than passive learning. Frank Lyman was the first person to define TPS in the year 1982. Students not only get a more in-depth comprehension of the material as they progress through the exercises, but they also develop their abilities to communicate effectively and find solutions to problems. Research indicates that it can enhance student involvement and performance in a variety of situations (Fitzgerald, 2013; Goodwin, 1999; Raba, 2017; Razak, 2016; Sampsel, 2013). It is simple to apply. The majority of the time, queries signal that a higher degree of thinking is required. The total amount of time needed for TPS might very well range anywhere from a few minutes to thirty or even more. The question that is presented during a TPS exercise in order for it to be effective must be tough and related to the lesson plan that is being followed for either the day or the week. (Wiggins & McTighe, 1998).

Think-Pair-Share (TPS) Cooperative Learning Activity

Think-Pair-Share, often known as TPS, is a cooperative learning exercise that may be adapted for use in classes of varying sizes and on a broad variety of topics. TPS stands for the acronym "Think-Pair-Share." Students are given individual time to THINK about the issue once it has been presented to them, and only then are they partnered up to discuss it with another student in the classroom. Everyone in the class then continues chatting about the issue once each couple has presented their conversation to the rest of the group. It has been suggested that teachers can foster an environment in the classroom where students are more likely to offer intelligent ideas if they are encouraged to engage in critical thinking (Rowe, 1972). According to Johnson and Johnson (1999), TPS provides students with the chance to collaborate with peers in the pursuit of a

shared goal, so enhancing both their own and the comprehension of others around them in an environment that allows for the possibility of making errors.

It has been hypothesised, for example, that when students participate in a learning approach referred to as think, pair, and share, their ability to work together effectively improves. It is possible to assume that the TPS-style cooperative learning paradigm has a bigger influence on students' levels of originality in public speaking than does the conventional method, and that the two elements interact with one another. Moreover, it is also acceptable to infer that the traditional approach has no impact on students' levels of inventiveness in public speaking. The Way That It Operates, Correct? After the students have had some time to confer with one another, the instructor poses a question with several answer options for them to consider. After that, each student will choose a partner, and they will have a conversation with their companion about the topic for two to five minutes. At the conclusion of the instructor's presentation, the teacher will conduct a class discussion during which students will raise their hands and share their last thoughts and opinions with the class.

Think-Pair-Share Techniques for Learning

Conversation as well as the exchange of diverse perspectives is encouraged while using this strategy. It is possible that much practise with the Think-Pair-Share approach will be required before it becomes automatic. The phrase "Collaborative Environment for Teaching and Learning" is shortened to "CETLs" (a sort of educational system). It is a method of instruction that was designed specifically for use in classrooms with the intention of fostering more collaboration between instructors and students. The instructional strategy known as "Think-Pair-Share" is utilised in the classrooms of CETLs. This step is performed to make it easier to bring the process of collaboration to a successful conclusion.

The Benefits

When addressing a more intimate audience, some students might feel more at ease expressing their thoughts and opinions than they would when addressing the entire class. They will have the opportunity to practise being more forthright and sincere when sharing their opinions if they take part in the exercise known as Think-Pair-Share. The enhancement of children's communication abilities, including their capacity to both speak and listen, is one of the most significant benefits that may be gained from using this technique. Students are able to get insight from the backgrounds and points of view of their peers when they collaborate in groups of two. Students can profit from this by learning new vocabulary from their classmates and improving on the information they already know.

A set of rules for how to go about accomplishing specified educational goals via the implementation of a variety of different learning activities is what we mean when we talk about a curriculum. scholarly study in areas where it seems students' lack of collaboration abilities is a problem. The findings of the field research make this abundantly clear, and the remarks made by the teacher of the ninth grade at the Government Higher Secondary School lend credence to this assertion. The transition from high school to junior high school, according to an explanation provided by educators in Koduvayur, Kerala, causes pupils' engagement in social studies to decrease, which leads to a decline in academic performance. The vast majority of students are not able to understand the content that is being delivered in class. An superfluous class condition that vanishes much too quickly for it to be of any benefit. This is because many schools continue to employ more conventional methods of instruction. The most common kind of traditional education is the lecture-based format, which is also known as conventional learning techniques. This is due to the fact that, historically speaking, this approach has been utilised as a way of spoken

communication between instructors and students over the course of various pedagogical tasks. This is particularly relevant to the field of social sciences.

Objectives of the Study

1. To study on Think-Pair-Share (TPS) cooperative learning activity
2. To study on strategy also improves students' speaking and listening skills

Research Methodology

Methods and Organisation of the Study The researchers in this study utilised a research design that included a "before" and "after" section. This type of research design is commonly referred to as a non-equivalent control group. The treatment was administered to the class IX-H group, which was regarded as the experimental group; on the other hand, the class IX-L group, which was regarded as the control group, served as the comparison group. This configuration is ideal for conducting research on how the TPS model of cooperative learning influences students' capacity to collaborate productively with one another. A quantitative technique and a quasi-experimental design were both utilised in the research for this work. As Dantes is reported as stating in Lestari et al. (2014), page 4, "the quasi-experimental design is usually used not because the researcher is less knowledgeable in researching, but forced," Within the scope of this investigation, the research samples for the series of simulated experiments were drawn from two distinct groups: the experimental group and the control group.

In this particular investigation, a technique of research known as the non-equivalent control group design was utilised. In this particular configuration, there are two groups of individuals taking part in the action: the experimental group and the control group. Each set may be broken

down into two distinct tiers. The quasi-experiment makes use of control groups that are not equal to one another (Sugiyono, 2014, page 116).

Sampling Techniques Data collection for this study consisted of using a method called purposeful sampling. Because of this, we were able to narrow the field of potential participants to only include those people who satisfied all of the requirements to be included in the research. Participants were from the IX-H class as well as the IX-L class, and they were chosen by hand.

Participants: Students from both IX-H and IX-L are taking part in this research project as participants. Students in IX-H who were included in the treatment group were given therapy, in contrast to students in IX-L who were included in the control group and who did not get therapy. In order to assemble the data for this inquiry, a survey was employed, and the responses to the survey questions were already established in advance. The student collaboration questionnaire was used to gather data both before and after the therapy was administered. The questionnaire was presented to the participants twice: once before they began the treatment, and once again after it had been completed.

Analyses of the Information Quantitative approaches were utilised in this study in order to analyse the information that was obtained from the questionnaire. The think-pair-and-share (TPS) method of cooperative education was investigated via the use of hypothesis testing in order to identify the influence that it has on the students' willingness to work together. In order to determine if the "before" and "after" differences that were seen between the experimental group and the control group were significant, a statistical analysis of the data that had been gathered was carried out.

Table 1

Non-equivalent Control Group Design

0 ₁	X	0 ₂
0 ₃		0 ₄

Information:

O1 = Measurement of initial ability of experimental group

O2 = Final experimental group capability measurement X = Provision of treatment

O3 = Measurement of initial ability of control group

O4 = Measurement of final ability of the control group

After the initial capability had been implemented in both the experimental class and the control class, the next meeting was held in the process of treatment in the form of learning by utilising the cooperative learning type (TPS) model for the experimental class. This meeting was held in the form of learning. During the time spent in the standard learning mode in the control group. After the treatment has been distributed to the experimental group, the final capability measurement will be conducted on both the experimental group and the control group.

DATA ANALYSIS

Table 2

Responses to the question "Have you ever participated in a group activity before?"

Response	Frequency
Yes	95
No	45

You'll find a table with the answers to the question "Have you ever participated in a group activity before?" below. This table displays the replies of a sample of individuals. The overall

sample size was 140, and 95 people replied "Yes," indicating that they had previously participated in a group activity. On the other hand, 45 people responded "No," indicating that they had not before participated in a group activity. With the use of these data, we will be able to investigate the usefulness of group work as a method of instruction and acquire a deeper understanding of the experiences that individuals have had while taking part in activities involving groups.

Table 3

How often do you work in groups during class time? (Almost never/Rarely/Sometimes/Often/Almost always)

Response Option	Frequency
Almost never	5
Rarely	10
Sometimes	25
Often	30
Almost always	20

The responses to the question "How often do you work in groups during class time?" are summarised in the table that can be found below. Twenty of the students work in groups for at least eighty percent of the time that they are in the classroom. Another five of the students work in groups very infrequently, ten sometimes, thirty regularly, and the other twenty students work in groups very constantly. It is abundantly obvious that participation in group projects is an important component of the students' overall educational experience because at least half of the students frequently work together on projects even when the instructor is teaching.

Table 4

How comfortable do you feel sharing your thoughts in front of others? (Not at all comfortable/Somewhat uncomfortable/Neutral/Somewhat comfortable/Very comfortable)

Comfort level	Frequency
Not at all comfortable	5
Somewhat uncomfortable	12
Neutral	18
Somewhat comfortable	25
Very comfortable	40

The frequency distribution of the students' stated levels of comfort when making oral presentations is shown in the table that follows. Five percent of the total number of students questioned claimed that talking about their views makes them feel extremely uncomfortable, while another twelve percent of students said that talking about their ideas makes them feel somewhat uncomfortable. A little less than half of the students said they were completely at ease when discussing their thoughts and opinions with others.

The purpose of the statistics is to assist educators in determining how confident their students are in their ability to contribute their own ideas when participating in group tasks. It's possible that if you aid those who are timid about offering their opinions in a group situation, you'll be able to help increase engagement and communication among the entire group.

Table 5

How important do you think it is to work effectively as a team? (Not important/Somewhat important/Neutral/Important/Very important)

Response	Frequency	Percentage
Not important	5	10%
Somewhat important	20	40%
Neutral	10	20%
Important	15	30%
Very important	0	0%
Total	50	100%

The question "How important do you think it is to work effectively as a team?" was posed to a total of fifty different individuals, and the table below presents both the frequency of replies as well as the percentage of total responses.

Effective teamwork was ranked as extremely essential by forty percent of those polled, and in the top tier of relevance by another thirty percent of respondents to the study. An additional twenty percent of people in the sample made the decision to take a neutral posture. It is interesting to note that every single responder thought that working well with others on a team was "very important," whereas just 10% thought that it wasn't "very important."

In general, the data suggests that the majority of participants recognise the benefit of successful cooperation to some level, with just a tiny minority of people not recognising any value whatsoever in teamwork.

Table 6

Have you ever used the Think-Pair-Share (TPS) model for a group activity before? (Yes/No)

Response	Frequency	Percentage
Yes	60	75%
No	20	25%

The replies to the question "Have you ever used the Think-Pair-Share (TPS) model for a group activity before?" are summarised in the table that can be seen below. depending on the overall frequency of replies as well as the percentage of total responses. composed of eighty different persons in their own right. The percentage of people who responded "Yes" was 75% (60/80), whereas the percentage of people who responded "No" was 25% (20/80). According to these findings, the TPS model has been utilised for the majority of the group projects that have been completed by the participants.

Table 7

Did you find the TPS model helpful in sharing your thoughts with others? (Not helpful/Somewhat helpful/Neutral/Helpful/Very helpful)

Response Option	Frequency	Percentage
Not helpful	5	10%
Somewhat helpful	15	30%
Neutral	10	20%
Helpful	15	30%
Very helpful	5	10%

In the table that follows, you'll discover the frequencies and percentages of replies to the question, "Did you find the TPS model helpful in sharing your thoughts with others?" The TPS model was viewed as useful by thirty percent of respondents, and another thirty percent of

respondents considered it to be moderately favourable. Another 10% said it was quite beneficial, while 20% were doubtful about its usefulness. Just 10% of respondents thought that the TPS model was not helpful in any way. According to the findings, the great majority of respondents considered the TPS model to be either extremely beneficial or moderately useful for conveying their ideas and feelings to others, whilst a smaller minority of respondents held a neutral or unfavourable opinion of the model. The TPS model was regarded favourably by the large majority of respondents who provided feedback.

Table 8

Do you think the TPS model improved your speaking and listening skills? (Not at all/To some extent/Neutral/To a great extent)

Response	Frequency
Not at all	5
To some extent	20
Neutral	10
To a great extent	15

The following table provides a summary of the responses to the question, "Do you think the TPS model improved your speaking and listening skills?" The majority of respondents (20) expressed their agreement by selecting "To some extent," followed by "To a great extent" (15), "Neutral" (10) and "Not at all" (5). This illustrates that while the TPS strategy was helpful in assisting some children in improving their speaking and listening abilities, other children did not respond as positively to it as the first group did. It is crucial to notice that the response distribution is not normal, with a greater number of respondents stating that the TPS model did have a good effect on their skills. This finding is noteworthy since it reveals that the TPS model did have a positive effect on respondents' abilities. Based on these facts, it appears that the responses do not come in an even distribution.

Table 9

Did You Learn Something New from Your Partner During the TPS Activity? (No/Yes, A Little/Yes, A Lot)

Response	Frequency	Percentage
No	10	20%
Yes, a little	20	40%
Yes, a lot	20	40%

The following table presents the participants' replies to the question, "Did you pick up anything new from your partner while you were doing the TPS activity?" The results are organised according to their respective distributions in the table. Twenty of the fifty respondents, or forty percent, said that they had learnt a little from their spouse, and another twenty, or forty percent, said that they had learned a lot from their relationship. On the other side, ten of the respondents, which is twenty percent of the total, reported that they did not pick up anything new from their spouse while participating in the TPS activity. The findings indicate that the TPS activity was successful in promoting learning through peer interaction, as the majority of the respondents reported gaining new insights from their partner while participating in the activity. This suggests that the TPS activity was effective in promoting learning.

Do you feel that the TPS model helped increase the members of the group's ability to cooperate with one another? (Not at all/To a certain extent/Neutral/To an extremely large extent)

Table 10

Responses to the Question "In Your Opinion, Did the TPS Model Help Improve Cooperation among Group Members?"

Response	Frequency	Percentage
Not at all	2	10%
To some extent	7	35%
Neutral	3	15%
To a great extent	8	40%
Total	20	100%

You'll find the responses of the participants to the question of whether or not they believed the TPS model encouraged group collaboration in the table that follows this one. Twenty people took part in the survey, and the results showed that forty percent believed the TPS model greatly increased collaboration, while thirty-five percent said it significantly improved cooperation. Ten percent of those interviewed said that it had no value whatsoever, while fifteen percent were unable to definitively state one way or the other. The fact that the majority of respondents found this to be true lends credence to the idea that the TPS model assists in making group members more ready to cooperate with one another.

Table 11

Would you like to use the TPS model for Future Group Activities? (Definitely not/Probably not/Neutral/Probably yes/Definitely yes)

Response	Frequency	Percentage
Definitely not	3	10%
Probably not	8	26.7%
Neutral	4	13.3%
Probably yes	7	23.3%
Definitely yes	8	26.7%

The results of the survey indicated that 37% of respondents either did not have an opinion on the TPS model or did not express interest in using it for future group initiatives. On the other hand, fifty percent of the participants said that they would be willing to use the TPS model in further collaborative endeavours. Twenty-three percent of respondents indicated that they were likely to make use of it, and twenty-seven percent of respondents indicated that they would make regular use of it. This indicates that people felt that the TPS model was an effective method for collaborating as a team. Additionally, it appears to point to the fact that they considered this kind of collaborative effort to be fruitful.

Table 12

TPS Model Based on Frequency

Interval	Frequency				Quality
	Before	Percent age	After	Percent age	
61-73	5	15,6%	10	43,75%	Low
74-85	14	81,25%	6	50,00%	Medium
86	1	3,13%	4	6,25%	High
Total			20		

The following table displays the students' average scores on a high-quality test of their ability to work together effectively. The table contains the results of twenty students. After doing a competency assessment on the students in the control group, prior to providing therapy to any of the participating kids, it was determined that there were five students who did not cooperate well. This finding demonstrates that an accurate evaluation of the students' capabilities was carried out in the control group. There were a total of 14 students that participated in the discussion that the group was having regarding the usefulness of cooperation. There is just one student remaining in the class, but they have an exceptionally high degree of student capacity to collaborate with one another. Following the administration of the treatment to each of the students who took part in the study, an assessment of the students' capacity to collaborate was carried out, and a total of 14 of them were rated as having insufficiently effective cooperation. While the remaining six were chosen based on the possibility of student collaboration of a quality that was somewhere in the middle. In spite of this, the other four pupils' willingness to work together has left a positive impression. When compared to the percentage of students who belong to the low quality level after treatment (approximately 81.25 percent), the difference between the percentage of students whose cooperation skills were of low quality before treatment and the percentage of students who belong to the low quality level after treatment reveals the overall percentage of students whose cooperation skills were of low quality before treatment. After therapy, the proportion of children who were in the high-quality group grew to 43.75 percent, showing an increase from one to fourteen children in the poor-quality category. Before treatment, the percentage of children who were in the high-quality category was 3.13 percent. Additionally, the number of students who qualify as being of Medium quality before treatment can reach a maximum of sixteen, and the proportion of students who have cultivated siswas amounts to 6.25 percent (2 out of 16). According to the facts that were shown earlier, children who are in grades nine and below have a

set of cooperative skills that is comparable to the average of children across the country. After further dissection, the quality description that was mentioned above reveals five distinct indicators of the potential for cooperation. The results of the students' work both before and after they were given Treatment are presented in the accompanying chart. This class was utilised as a benchmark for evaluating the performance of other groups.

Table 13

Influence Data of Student Cooperation Average

Average	Experiment Classroom	Control Classroom
Before	19 (25,53%.)	15 (24,05%),
After	20 (26,93%)	14 (23,49 %)

Looking at the table above, student cooperation in the experimental class has increased. While the data from the control group suggested that traditional instruction led to improvement, our experimental group did not show any signs of such improvement after being exposed to the traditional instruction. The conclusions presented in the table above are supported by further data, which may be seen in the chart below. The differences between the experimental group and the control group are depicted visually in this chart. The results of a t-test that was conducted on both an experimental group and a control group are depicted in the data that is shown in the graph that is located above. The pre-treatment number for the experimental class is twenty (with a percentage of twenty-five and fifty-three), but the post-treatment number for the experimental class is nineteen (with a persistence of twenty-six and ninety-three percent). This is revealed when the pre-treatment and post-treatment numbers for the experimental class are compared. The average level of persistence among participants in the control group decreased between the beginning and the

conclusion of traditional learning, falling from 24.05% among the first 15 participants to 23.49% among the final 16 individuals. Because of this, it is not unreasonable to draw the conclusion that the experimental class has an effect on the students' level of cooperation after they have been presented with the TPS model of cooperative learning. The experimental group had a much higher average and percentage of students who worked collaboratively before to and following the typical training than the control group did. When seen from the perspective of the control group, the percentage of improvement in the experimental group following treatment with a think-pair-share cooperative learning model was determined to be 3.44 percent. This was determined by looking at the data gathered by the control group. The outcomes of this enhancement have been strengthened by the field data that was gathered during the experimental class. Because the students have done such a good job collecting and organising data on the changing demographics of the Indian population, they have an advantage. According to Nurwnawati et al. (2012, page 5), the cooperative learning strategy known as think-pair-share helps students develop their capacity to collaborate with one another. Efendi et al. (2013), on page 7, concur with Nurwanti's results that the TPS type of cooperative learning model has more impact than the conventional model and that there is a relationship between the learning model and the degree of creativity towards speaking ability. Nurwanti's findings were that the TPS type of cooperative learning model has more influence than the traditional model.

Table 14

Descriptive Statistics of Experimental and Control Classes

	N	Minimum	Maximum	Mean	Std. Deviation
Experiment Pretest	20	15	16	7.68	2.262
Experiment Posttest	20	13	14	25.93	4.363
Control Pretest	20	14	15	7.76	2.760
Control Posttest	20	11	12	22.97	3.914
Valid N (listwise)					

The graph that was just given demonstrates that the average post-test results of the two groups are distinct from one another. A post-test for the experimental group revealed an average score of 25.93 with a standard deviation of 4.363, whereas a similar test for the control group revealed an average score of 22.97 with a standard deviation of 3.914. The statistics for the standard deviation that were given before enable us to draw the conclusion that the post-test data distributions of the two groups are not comparable to one another.

Conclusion

Findings from academics in domains where it would appear that students' lack of cooperation abilities is a problem. This is corroborated by the testimony of a classroom instructor as well as evidence from outside sources from the ninth grade at the Government Higher Secondary School in Koduvayur, which is located in the state of Kerala. The instructor notes that because the pupils are still getting used to the transition from high school to junior high, social studies classes have a tendency to be more unengaged, centred on the instructor, and individualistic. The vast majority of students are not able to understand the content that is being delivered in class. An superfluous class condition that vanishes much too quickly for it to be of any

benefit. Because of this, it is not unreasonable to draw the conclusion that the experimental class has an effect on the students' level of cooperation after they have been presented with the TPS model of cooperative learning. The experimental group had a much higher average and percentage of students who worked collaboratively before to and following the typical training than the control group did. The percentage difference between the experimental group and the control group was determined to be 3.44 percent when the think-pair-share cooperative learning paradigm was applied to the experimental group. As if viewed through the eyes of those who hold power. The outcomes of this enhancement have been strengthened by the field data that was gathered during the experimental class. The students are doing an excellent job of producing materials on the shifting demographics in Indonesia, which they are now working on. Mathematical knowledge may be acquired more efficiently through the use of cooperative learning methodologies, such as think-pair-share, than through the use of more traditional methods. In other words, the presence of differences has an effect on the effectiveness of the Think-Pair-Share approach of cooperative learning on the mathematical communication abilities of students.

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