Fostering Students' Cognitive Abilities by Using Teams Games Tournament (TGT): An Action Research

YAHFENEL EVI FUSSALAM[1*], RESI SILVIA[2], SOPHIA RAHMAWATI[3], DANI SARTIKA[4], APRILLITZAVIVAYARTI[5], AND LENI MARLINA[6]

Abstract

The research was conducted as a potential means to address the issues about low student learning outcomes, especially in cognitive abilities. Facts show that the score was still below the minimum mastery criteria of 75, especially in the field of social science for sixth-grade students. Social studies learning is recorded as it still uses conventional methods and teachers rarely give feedback on student work, coupled with the minimal use of media and not providing motivation to students. The present research aimed to apply the teams' games tournament (TGT) approach to enhance the students' cognitive abilities. The researchers employed two improvement cycles in the form of classroom action research procedures. The progress of students' learning outcomes was in each cycle, starting at 34.62% in the pre-cycle, completeness rose to 84.6% after the first cycle and reached 92.3% in the second cycle. The research results suggest that the implementation of the TGT method yielded a significant improvement in cognitive abilities of academic achievement among the research participants.

[1]Universitas Muhammadiyah Jambi, Indonesia, Corresponding author: yahfenel88@gmail.com
[2]Universitas Adiwangsa, Jambi, Indonesia
[3,4]Universitas Islam Negeri Suthan Thaha Saifuddin Jambi, Jambi, Indonesia
[5]Universitas Jambi, Indonesia
[6]SDN 093/VII Sungai Abang, Sarolangun-Jambi, Indonesia

Introduction

The subject of Social Sciences, or in Indonesia, it is called "Ilmu Pengetahuan Sosial or IPS", is a field of study that covers various interdisciplinary branches of social sciences. IPS integrates existing social sciences, such as geography, sociology, economics, culture, and psychology, into a comprehensive subject taught in schools (Nasution & Lubis, 2018; Sasmita et al., 2022). In other words, IPS is a synthesis of social sciences and humanities presented scientifically with pedagogical and psychological approaches to achieve educational objectives. The scope of IPS includes a wide range of topics, from social phenomena, economic issues, humanity and psychology, cross-cultural studies, and historical analysis to even political matters (Istarani, 2017). The purpose of designing the IPS subject is to establish a foundation for social science disciplines used as a catalyst to achieve national educational goals. From this subject, the aim is to shape and develop students' personalities, making them good citizens.

IPS subject in elementary school is prepared to provide students with practical knowledge and skills to understand and analyze existing social phenomena and social issues encountered in society (Mudjiono, 2013; Widiyanto, 2020). More specifically, it is intended to cultivate students' concern for problems in their surroundings and nurture positive attitudes in facing various inequalities. Additionally, students are expected to be skillful in finding alternative solutions to address social problems. However, achieving these goals can be challenging if the designed teaching programs and scenarios are not optimally implemented.

The ideal conditions for learning IPS in elementary schools may be difficult for students to achieve. Various obstacles arise from teachers, students, and schools in the IPS learning process. Based on initial field observations at the research site, during IPS lessons, the conditions were far from expected and even concerning. Only 5 out of 19 students achieved the Minimum Mastery Criteria of 75. The classroom atmosphere was passive, with many students remaining silent and unresponsive during question-and-answer sessions or discussions. The observations recorded minimal interest and enthusiasm, attributed to students feeling shy to express their opinions in front of the class.

Upon reflection and interviewing some students, some problems made it difficult to achieve learning objectives. The teachers tended to use traditional methods like lectures, which limited the use of varied teaching methods and learning media during lessons. At the beginning of the lessons, teachers did not motivate students about the goals of IPS learning and the benefits of the materials to be studied. In other words, the teachers rarely checked students' understanding or provided feedback on what students had conveyed.

To address and improve the above learning issues, the researcher chose a relevant method called teams games tournament (TGT). This method was selected as an effort to motivate students to increase their cognitive abilities involving participation and understanding of IPS learning. TGT has been proven successful in improving students' learning outcomes (Fauzan & Nurayu, 2020). Some experts, such as Harahap (2018) and

Susilo et al. (2019), stated that the implementation of the TGT method has been widely used by teachers and can be adapted to various school conditions.

However, some experts pointed out several considerations for TGT, such as the challenge of grouping students with heterogeneous academic abilities and the difficulty of differentiating between students who have mastered the material and those who struggle to comprehend it during discussions (Hesti et al., 2019). In addition, Erbil and Kocabaş (2018) have found some advantages of TGT, such as students dedicating more time to complete tasks, emphasizing acceptance of individual differences, enhancing student participation in class, and cultivating good character, social sensitivity, and tolerance within the group. The method is also known for its concept of learning while playing, making it enjoyable for elementary school students. TGT creates a friendly learning environment by preparing games to cooperate in small groups (Baan, 2023; Jocobs & Kimura, 2013; Pada & Amir, 2022).

Based on the above background, the researcher formulated two research problems: 1) How is the IPS teaching and learning activity with the application of teams games tournament (TGT) in fifth-grade elementary school? and 2) How does the application of the teams games tournament (TGT) method improve the IPS cognitive abilities of fifth-grade students at SDN 93/VII Sungai Abang, especially in the topic of Identifying the diversity of Indonesian people? The purpose of this research is to provide a description of IPS teaching and analyze the impact of applying the TGT method to improve student learning outcomes, especially in the topic of identifying the diversity of Indonesian people.

This research is believed to contribute to the field of education. Theoretically, it adds to the knowledge and information about the application of the TGT method in the learning process in elementary schools. Practically, the research results will provide teachers with more experience in designing and implementing innovative learning, thus enhancing their professionalism and confidence. For the school, the results of this action research are one of the contributions made by teachers to the progress and positive image of the school.

Literature Review

Social studies

Social Studies learning provided in primary schools has its uniqueness, which sets it apart from other subjects. This distinction is evident from the inclusion of discussions from various disciplines, such as Sociology, Earth/Geography Sciences, Economic Topics, and History during the learning process (Martell, 2017; Mudjiono, 2013). The presented materials also vary, encompassing various concepts, principles, and themes related to human life as social beings, making it the subject of research. The complexity of this field of study, as mentioned earlier, poses challenges and difficulties for students when participating in IPS learning. Therefore, the process of transferring IPS knowledge to students at the elementary school level is not something to be taken lightly or considered easy, as the extensive material covered demands strong determination from teachers and understanding in choosing teaching strategies.

According to Sasmita et al. (2022), IPS learning is one of the subjects taught in primary schools to enhance the quality of education in Indonesia. Sociology is one of the subjects aimed at equipping students to develop reasoning about values and ethics, which involves many social and memorization materials. An IPS course is essential for students. However, in reality, IPS learning is not valued by primary school students as it contains abstract concepts or topics that are difficult for them to grasp. Additionally, during IPS learning, teachers do not use teaching strategies that encourage positive thinking in students, thereby hindering the development of critical thinking, creativity, and innovation.

In another piece of literature on IPS learning, Kristin (2020) revealed that the purpose of teaching IPS concepts to students in primary schools is to develop their understanding and thinking abilities, instill attitudes, and interpret social values in their roles as members of society and having a culture to uphold. Hence, the success of IPS learning can contribute to something that students can comprehend after integrating into society, both now and in the future (Thacker et al., 2018). Therefore, Sasmita et al. (2022) stated IPS learning not only teaches participants about knowledge concepts but also guides learners to become responsible members of society, aware of their rights and responsibilities within the community.

According to Nasution and Lubis (2018), the essence of social science is to develop thinking concepts based on the social reality conditions present in students' environment, so that providing IPS education is expected to produce good and responsible citizens for their nation. It further explained that there are three types of values related to IPS education: (1) behavioral values or values related to student's behavior in the classroom; (2) values that correspond to scientific investigation methods; and (3) substantive values or values individuals possess as a result of experiences in family, ethnicity or group, nationality, religion, and culture. These aspects also relate to providing a foundation for ethics and norms that will become value orientations in community life.

From the synthesis of expert opinions above, it can be concluded that the subject matter of IPS is quite extensive, ranging from social life phenomena, economic issues, humanity or psychology, cross-culture exploration, historical analysis, and even political matters. Organizing IPS as a subject is to lay the foundation of social science disciplines, which catalyze to achievement of national educational goals. Through these learning activities, it is hoped that students' personalities will develop and grow, shaping them into good citizens.

Students' cognitive abilities

Students' cognitive abilities are fundamental aspects of their intellectual development and academic success (Peng & Kievit, 2020). According to Sönmez (2017), cognitive abilities encompass a wide range of mental processes that allow students to acquire knowledge, process information, and apply critical thinking skills. These abilities play a crucial role in various aspects of learning, problem-solving, decision-making, and social interactions. Teachers and parents play a vital role in fostering students' cognitive abilities. By providing a stimulating and supportive learning environment, teachers can engage students in activities

that challenge their critical thinking, creativity, and problem-solving skills (Rohde & Thompson, 2007). Differentiated instruction and personalized learning approaches can address individual differences in cognitive abilities, ensuring equitable opportunities for all students to thrive.

The reviewed literature highlights the significance of students' cognitive abilities in shaping their academic performance and overall cognitive development. Cognitive abilities are crucial for learning, problem-solving, and critical thinking, and they are influenced by various factors, including classroom environment, socioeconomic status, and targeted interventions (Sholahuddin et al., 2020). Understanding the complexities of students' cognitive abilities is essential for educators and policymakers to design effective educational strategies and interventions that support cognitive growth and academic success among all students. Further research is needed to explore the interactions between cognitive abilities, educational interventions, and environmental factors to optimize students' cognitive development.

Incorporating team game tournaments into the elementary school curriculum offers a promising avenue to enhance students' cognitive abilities (Rosyidah et al., 2015). By integrating elements of competition, collaboration, problem-solving, and communication, these tournaments can provide a holistic approach to cognitive development. Moreover, the joy and excitement of team games create a positive learning experience that encourages students to actively participate and excel academically. The inclusion of team game tournaments can be an effective and enjoyable strategy for educators to support students' cognitive growth and prepare them for future academic and personal challenges.

In conclusion, students' cognitive abilities are essential components of their learning journey. Nurturing these abilities through effective teaching strategies, personalized instruction, and targeted interventions can support students' academic achievements and prepare them for future academic and personal challenges. By recognizing and promoting the unique cognitive strengths of each student, educators can create inclusive and engaging learning experiences that maximize students' cognitive potential.

The teams games tournament (TGT)

The Teams Games Tournament (TGT) is a cooperative learning method that combines group learning activities with inter-group competition Octavia (2020). Learning activities are conducted or designed using games that encourage student's enthusiasm to learn in the classroom. Besides promoting sportsmanship and responsibility, games foster good interactions and cooperation among students in facing healthy competition and engaging in learning (Fauzan & Nurayu, 2020). Another expert opinion by Jocobs and Kimura (2013) described TGT as a practical cooperative learning approach that promotes student engagement without any distinctions in abilities or skills.

IPS learning activities designed in the Cooperative Learning Model, specifically TGT enable students to learn in a relaxed environment while fostering responsibility, teamwork, healthy competition, and engagement in learning. Students are placed in groups consisting of 3 individuals with low, medium, and high abilities in TGT. In summary, the cooperative

learning model TGT is one type or model of cooperative learning that is easy to implement, involving all students without any status differences, utilizing peer tutoring, and incorporating elements of games.

The Teams Games Tournament (TGT) method is quite practical and easy to implement. According to Baan (2023), the TGT process generally consists of five stages in its implementation. The first stage is class presentation, followed by learning in teams as the second stage. The next stage is the game activities, which lead to the core of the method in the tournament. Finally, the last stage is team recognition, where awards are given to the groups. There are five ways of using TGT in the classroom: 1) Presenting learning objectives followed by providing learning motivation; 2) Presenting learning material in the form of information; 3) Grouping students into teams or learning groups and providing guidance on the topics to each group; 4) Group presentations of their work along with evaluation and feedback; 5) Rewarding the efforts of the group or individuals as the conclusion of TGT (Rusman, 2014).

According to Erbil and Kocabaş (2018), the use of TGT as a teaching method has several advantages, including students dedicating more time to completing tasks; group learning objectives emphasize acceptance of individual differences among students; this method increases student participation in the classroom; activities during TGT cultivate students' character, social sensitivity, and tolerance within the group. On the other hand, the division of learning groups fosters cooperation, competition, and responsibility, creating a comfortable learning atmosphere where students can relax without losing sight of the learning objectives (Baan, 2023). However, some other experts point out some considerations in TGT, such as the difficulty for teachers to group students with diverse academic abilities. Additionally, there may be challenges in differentiating between students who have already mastered the material and those who struggle to grasp it during discussions (Hesti et al., 2019).

Methodology

The subjects in this research were students at one elementary school in Jambi. This school is in the Village of Sungai Abang, precisely in one of the districts of Sarolangun Regency, Jambi Province. A total of 19 students, consisting of 9 female students and 10 male students, participated in the research. The research activities to improve learning were conducted in 2 cycles in 2023. The design of this learning improvement procedure followed the guidelines of Classroom Action Research (CAR) with four stages, including planning, action, observation, and reflection on the results obtained. The cycles are described as follows.

Pre-cycle

In the pre-cycle phase, the teacher only used traditional teaching methods, such as lectures and group discussions. The teacher followed a standard lesson plan (RPP) provided by the West Tanjung Jabung District Education Office, and the learning process followed the Curriculum 2013 printed book as a learning resource. The pre-cycle took place in April, 2023,

with the researchers acting as observers. After the learning activities, the teacher administered a test to the students, and the results showed that the IPS learning outcomes did not reach the Minimum Mastery Criteria for the subject. Based on these results, the teacher then conducted a series of reflections and studied theories to find suitable alternative solutions to address the priority problem using the TGT method.

Cycle 1 and cycle 2

The researchers prepared the implementation plan or lesson plan (RPP) by applying the TGT method to the topic of Indonesian diversity, specifically ethnic groups and regional languages. Media and learning resources, observation guidelines, tests, and documentation tools were also prepared before conducting cycle 1. This stage was conducted in a single meeting in April, 2023, with a duration of 2 x 35 minutes. The observer in this research was the school principal. The researchers and senior teacher collaborated to evaluate what happened in cycle 1 to consider for reflection and improvement planning for the next cycle.

Cycle 2 was planned based on the reflection from cycle 1. Improvements were made by revising the implementation plan and adapting the necessary media. The researchers also designed a different test for cycle 2. Similar to the previous cycle, cycle 2 was conducted in a single meeting in May, 2023. The school principal also conducted observation activities in cycle 2 by using the same techniques and observation sheets as in the previous cycle. The reflection notes from cycle 2 were also used to determine whether the learning improvement actions were sufficient until the cycle 2.

In this research, observation sheets, test implementation, documentation of activities, and field notes were used by the researchers as data collection instruments. Data analysis was done quantitatively by looking at individual student scores, average learning outcomes in the class, and student achievement (quantitative). Additionally, data were also analyzed qualitatively by reducing, sorting, presenting data, and drawing conclusions. The formulas used for analysis are as follows,

$$X = \frac{\sum x}{n}$$

X = Average Score
$\sum x$ = Total score
N = Amount of students

The percentage of student cognitive achievement in this improvement was obtained from a formula adjusted to the school completion criteria as follows,

$$P = \frac{\sum \textit{completion criteria students'}}{\sum \textit{Amount of students}} \times 100$$

Table 1. *The level of student learning outcomes achievement*

| Scale	Grade Description
86-100	Excellent
76-85	Good
66-75	Average
55-65	Poor
<55	Unsatisfactory

Source: Arikunto (2019)

Findings and Discussion

Pre-cycle

The pre-cycle phase with conventional teaching methods was conducted in April, 2023, where five students met the minimum mastery criteria (MMC), which is 70. Based on the observation results and field notes, the teacher reflected on the need for learning improvement through TGT. The student achievement in the pre-cycle phase is in Figure 1 below,

Figure 1. *Students' achievement in pre-cycle*
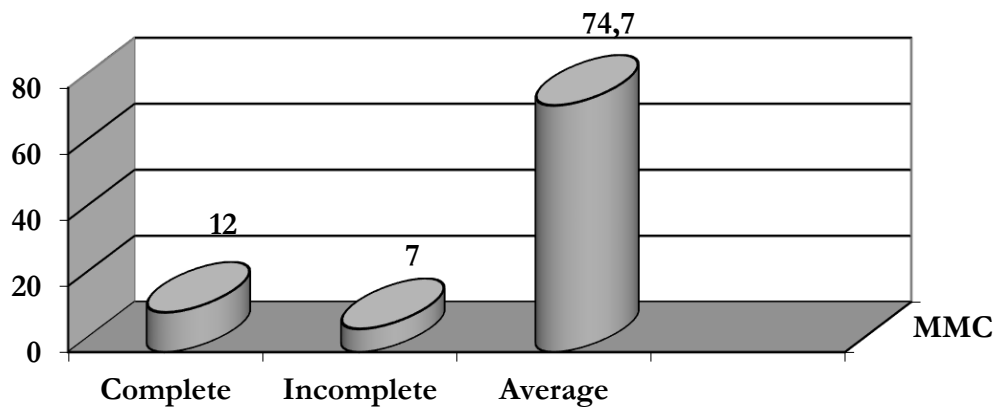
From the visualization above, only five students (26.3%) achieved the MMC of 75 during the pre-cycle, while 14 students (65.38%) did not meet the criteria. The average score of fourth-grade students in the pre-cycle was only 73.6%, still far from the desired target. Therefore, learning improvement using the TGT method was needed, which was then incorporated into the lesson plan for cycle 1.
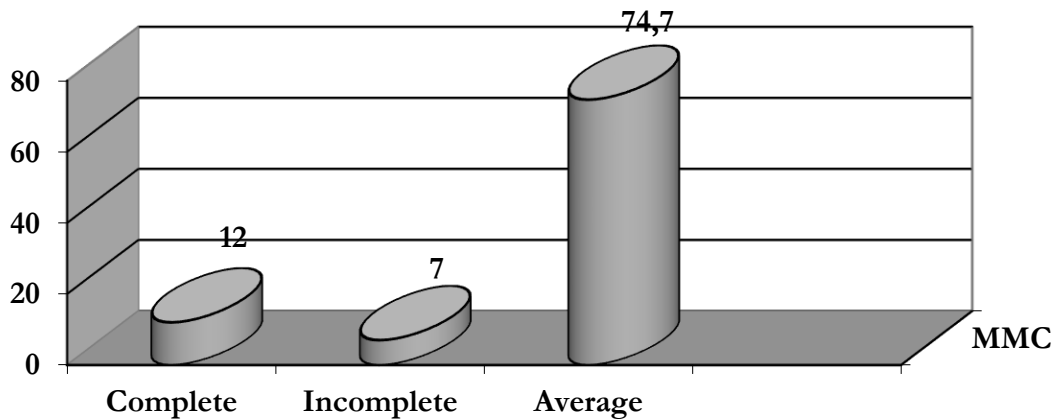
Cycle 1

Implementation in Cycle 1, the teacher prepared the lesson plan (RPP) containing the procedures for implementing TGT, especially in the core activities. Several posters of regional

culture were also purchased, cut into small-sized images that could be put into envelopes, along with other necessary media. The test was also designed to assess student understanding and serve as a measure of the success of this research. It consisted of 5 short answer or multiple-choice questions and 5 essay questions. The student learning outcomes in cycle 1 are in Figure 2 below,
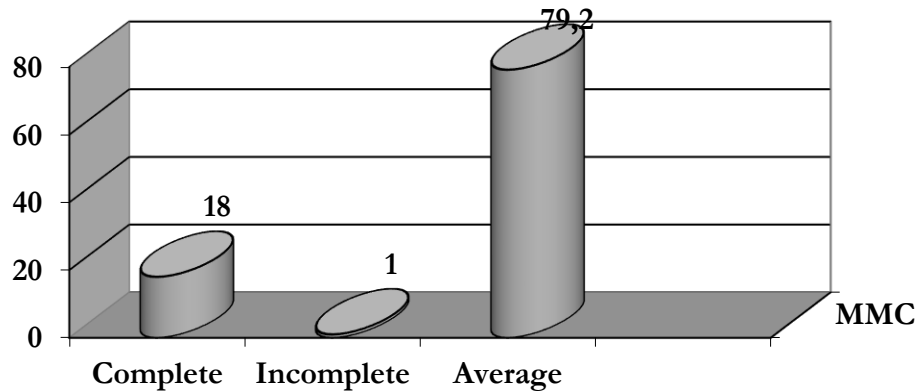
Figure 2. *Students' achievement in cycle 1*

From the visualization in Figure 2 above, it can be explained that there was an increase in the number of students who achieved the MMC, almost doubling from the pre-cycle to 12 students (63.2%), while 7 students (36.8%) did not meet the MMC. The average score of fifth-grade students also increased to 74.7. Based on reflection results and the researcher's desire, it was found that the teacher had been able to increase student participation in learning, and students had started to become motivated to be actively involved in learning. However, the lack of facilities and infrastructure such as an InFocus (projector) caused some difficulty for students in identifying regional songs, national songs, traditional clothing, traditional houses, and regional dances in the videos shown on the teacher's laptop. To achieve the target of more students reaching the MMC or even better, the researcher planned learning improvement for cycle 2 or subsequent cycles.

Cycle 2

Implementation After reviewing the reflection from cycle 1, the researcher prepared a laptop and speaker equipment for playing song videos at the beginning of the learning activities, considering the school's limited facilities and infrastructure. The time allocation for cycle 2 was extended to 1 day, allowing for a broader scope of teaching materials beyond just discussing the names of ethnic groups, leading to a better-paced learning experience compared to the previous cycle (cycle 1). The student achievement or learning outcomes in cycle 2 are in Figure 3 below.

Figure 3. *Students' achievement in cycle 2*

In Figure 3, the student learning achievement in cycle 2 is depicted, where 18 students (94.7%) successfully met the MMC, leaving only 1 student who did not achieve the threshold. The average score of fourth-grade students also significantly surpassed the MMC, reaching 79.2. Thus, the researcher deemed it sufficient to conclude with cycle 2, as there was a significant improvement in learning outcomes in each phase and cycle of implementation.

The discussion of the research results begins by looking at the recapitulation of learning improvements in cycles 1 and 2, implemented using the teams games tournament (TGT) method, which had a significant impact on the improvement of student learning outcomes in the IPS subject for fifth-grade students. This improvement is illustrated in the data tabulation provided in Table 2 below.

Table 2. *Students' average score in each cycle*

Component	Score		
	Pre cycles	**Cycle 1**	**Cycle 2**
Average	61,9	74,7	79,2
Complete	5 students	12 students	18 students
(%)	(26,3%)	(63,1%)	(94,7%)
Incomplete	14 students	6 students	1 student
(%)	(73,7%)	(26,9%)	(5,3%)
Highest Score	76	88	93
Lower score	55	68	71

With careful observation of Table 2 above, there has been a significant improvement in learning outcomes, as indicated by the test results conducted on students at the end of each cycle. The average student mastery score in the pre-cycle was only 26.3%, which increased to 63% in cycle 1 and then further increased to 94.7% in cycle 2. Additionally, a significant change occurred in the acquisition of the highest scores in each cycle, as described in Figure 4 below.

Figure 4. *Comparison of student achievements (cycles)*
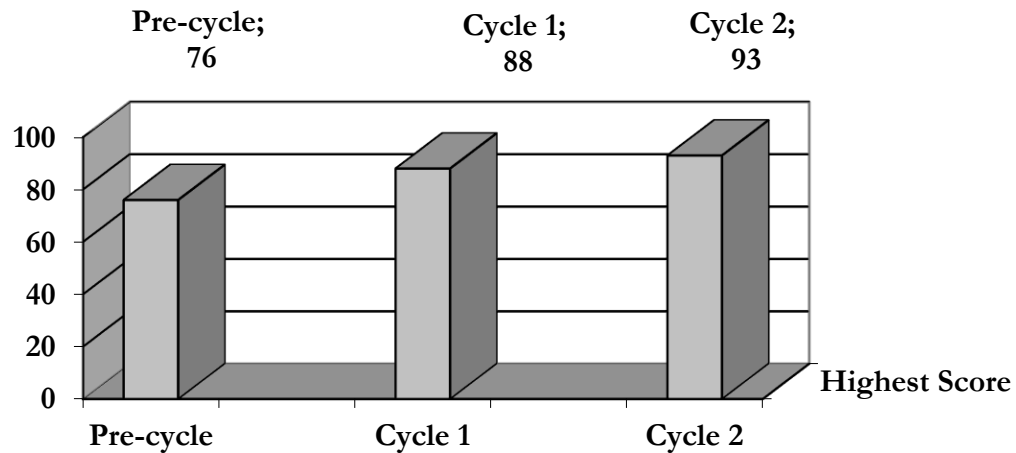
Based on Figure 4, the change in students' learning outcomes is evident not only in the class average but also in the achievement of students in each cycle. The data shows a drastic improvement in student scores, ranging from 76 to the highest score of 93. According to Jacobs and Kimura (2013), TGT is a method easily accepted by students because it involves the active participation of all students, regardless of their individual abilities. Baan (2023) stated that the design of TGT helps address individual student learning difficulties by engaging them in problem-solving activities within groups. The success of the learning process in the classroom is also attributed to the role and competence of the teacher. Observations indicate a change in the teacher's skills in developing instructional improvements.

According to Kristin (2020), one of the advantages of the TGT method is that teachers and students increase the allocation of time for tasks and learning activities, which encourages the active engagement of students. The research also shows that teachers demonstrate initiative and creativity in using various media and teaching methods. The findings of this study are consistent with a study conducted by Hesti et al., (2019), which attempted to apply the teams games tournament (TGT) model to improve students' cognitive abilities in elementary schools. The research findings and several other reference sources also indicated the success in using the method. However, the researchers also identified some weaknesses, such as the need for careful time management and detailed group activity planning to maximize the available time. Shoimin (2013) also warns that implementing TGT requires sufficient time and demands teachers to prepare all the necessary materials and learning resources before conducting the activities. Therefore, future research is expected to focus on further developments of this method.

Conclusion

Based on the improvement of learning with the action research procedure carried out over two cycles, starting from planning by preparing lesson plans, implementing actions,

recording observation results, and finally reflecting on the research findings, the results of this study showed that there was a significant change in the learning indicators in each cycle, from pre-cycle, cycle 1, to cycle 2. The average student mastery score in the pre-cycle was only 26.3%, which increased to 63% in cycle 1, and then further increased to 94.7% in cycle 2. Additionally, a significant change occurred in the highest scores acquisition in each cycle. In conclusion, the TGT method can positively impact on learning outcomes, especially in social studies subjects with the theme of Indonesian cultural diversity at the research site. This research is considered to have some limitations and areas for improvement and recommendations. Therefore, it is suggested that the research findings can be disseminated to a broader audience. Furthermore, it is recommended for teachers to try implementing this model in other social science topics to discover new insights and innovations in teaching. Additionally, conducting trial runs of this teaching model in other subjects or themes related to primary school education is also encouraged.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest.

References

Baan, A. (2023). Implementation of the cooperative learning model team assisted individualization (TAI) in Indonesian language lectures. *International Journal of Educational Administration, Management, and Leadership*, *4*(1), 31-44. https://doi.org/10.51629/ijeamal.v4i1.116

Erbil, D. G., & Kocabaş, A. (2018). Cooperative learning as a democratic learning method. *Journal of Research in Childhood Education*, *32*(1), 81-93. https://doi.org/10.1080/02568543.2017.1385548.

Fauzan, A., & Nurahayu, F. J. (2020). Penggunaan model pembelajaran kooperatif *Team Games Tournament (TGT)* dalam meningkatkan hasil belajar matematika Sekolah Dasar Negeri Sukamandi VII (Use of the Team Games Tournament (TGT) Cooperative learning model in improving mathematics learning outcomes at Sukamandi State Elementary School VII.). *Jurnal Ilmu Pendidikan dan Humaniora, 6*(1),37-78. https://doi.org/10.37842/sinau.v6i1.23

Harahap, S. E. (2018). Meningkatkan hasil belajar PPKN melalui model pembelajaran TGT (Team Games Tournament) siswa kelas 5 SD Negeri 164525 Tebing Tinggi (Improving Civics learning outcomes through the TGT (Team Games Tournament) learning model for class 5 students at SD Negeri 164525 Tebing Tinggi.) *Elementary School Journal PGSD FKIP Unimed*, *8*(2), 101–10.

Hesti, R. C., Murdiyah, S., & Suminah, S. 2019). Model Teams Games Tournament (TGT) dalam meningkatkan hasil belajar siswa Sekolah Dasar. *Wahana Sekolah Dasar, 27*(1), 1-9.

Istarani, I. (2017). *Model embelajaran inovatif (Innovative learning model).* Medan: Media Persada.

Jacobs, G. M., & Kimura, H. (2013). *Cooperative learning and teaching.*   Alexandria, VA: TESOL.

Kristin, F. (2020). *Inovasi pembelajaran IPS SD.* (*Elementary social sciences learning innovation).* Salatiga: Satya Wacana University Press.

Martell, C. C. (2017). Approaches to teaching race in elementary social studies: A case study of preservice teachers. *The Journal of Social Studies Research*, *41*(1). 75-87. 10.1016/j.jssr.2016.05.001.

Mudjiono, D. (2013). *Belajar dan pembelajaran (Study and learning).* Jakarta: Rineka Cipta.

Nasution, T., & Lubis, M. A. (2018). *Konsep dasar IPS (Basic concept of social science).* Yogyakarta. Samudra Biru.

Octavia, S. A. (2020). *Model-model pembelajaran (Learning models)*. Yogyakarta: Deepublish.

Pada, A., & Amir, F. (2022). Elevating social sciences learning outcomes: TGT types cooperative learning model. *Jurnal Ilmiah Sekolah Dasar, 6*(4), 620-626.

Peng, P., & Kievit, R. A. (2020). The development of academic achievement and cognitive abilities: A bidirectional perspective. *Child Development Perspectives*, *14*(1), 15–20, doi:10.1111/cdep.12352.

Rohde, T. E., & Thompson, L. A. (2007). Predicting academic achievement with cognitive ability. *Intelligence, 35*(1), 83–92. 10.1016/j.intell.2006.05.004

Rosyidah, Z., Zubaidah, S., & Mahanal, S. (2015). Pengaruh pola pemberdayaan berpikir melalui pertanyaan dalam pembelajaran Team Game Tournament terhadap kemampuan kognitif, sikap IPA dan kesadaran metakognitif siswa. *Jurnal Pendidikan Sains Universitas Negeri Malang*, *3*(1) 42-48, doi:10.17977/jps.v3i1.4835.

Rusman, L. (2014). *Model-model pembelajaran (Learning models)*. Jakarata: Raja Grafindo Persada.

Sasmita, R. N., Sapriya, S., & Maryani, E. (2022). Critical thinking on social studies learning for elementary school students. *Nazhruna: Jurnal Pendidikan Islam*, *5*(3), 1377-1387.

Shoimin, A. (2013). *Model pembelajaran inovatif dalam kurikulum 2013 (Innovative learning models in the 2013 curriculum)*. Yogyakarta: Ar-Ruzz Media.

Sholahuddin, A., Yuanita, L., Supardi, Z. A. I., & Prahani, B. K. (2020). Applying the cognitive style-based learning strategy in elementary schools to improve students' science process skills. *Journal of Turkish Science Education*, *17*(2), 289–301. https://doi.org/10.36681/tused.2020.27

Sönme, V.. (2017).Association of cognitive, affective, psychomotor and Intuitive Domains in Education, Sönmez model. *Universal Journal of Educational Research*, *5*(3), 347–356.

Susilo, N. H., Wijayanti, A., & Artharina, F. P. (2019). Penerapan permainan What's In Here berbasis model TGT untuk menumbuhkan kemampuan berpikir kritis siswa (Application of the What's In Here Game based on the TGT model to develop students' critical thinking abilities.). *Jurnal Ilmiah Sekolah Dasar*, *3*(2), 125-134. https://doi.org/10.23887/jisd.v3i2.17756.

Thacker, E. S., Friedman, A. M., Fitchett, P. G., Journell, W., & Lee, J. K. (2018). Exploring how an elementary teacher plans and implements social studies inquiry. *The Social Studies*, *109*(2), 85–100. doi:10.1080/00377996.2018.1451983

Widiyanto, R. (2020). *Ilmu pengetahuan sosial: Untuk PGSD dan PGMI (Social sciences for PGSD and PGMI)*. Bandung: PT Remaja Rosdakarya.

Biographical Notes

Dr. YAHFENEL EVI FUSSALAM, M.Pd, is a lecturer at the Management Department of Universitas Muhammadiyah Jambi, Indonesia

Dr. RESI SILVIA, M.Pd. is a lecturer at Universitas Adiwangsa Jambi, Indonesia.

Dr. SOPHIA RAHMAWATI, M.Pd. is a lecturer at UIN Suthan Thaha Saifuddin Jambi, Indonesia.

Dr. DANI SARTIKA, M.Si. is a senior lecturer at UIN Suthan Thaha Saifuddin Jambi, Indonesia.

Dr. Dra. Hj. APRILLITZAVIVAYARTI, M.M. is a lecturer at the Faculty of Education and Teacher Training, Universitas Jambi, Indonesia

LENI MARLINA, S.Pd. is a senior teacher at SDN 093/VII Sungai Abang, Sarolangun-Jambi, Indonesia.