



Enhancing Social Maturity: A Study on the Effectiveness of TGT Method in Primary Schools

Sri Wulan Anggraeni^{1*}, Yayan Alpian¹, Depi Prihamdani¹, Riki Fahrudin¹

¹Department of Primary Education, Universitas Buana Perjuangan
HS. Ronggo Waluyo Street, Puseurjaya, East Telukjambe, Karawang, West Java, Indonesia

*Corresponding Author. E-mail: wulan.anggraeni@ubpkarawang.ac.id

Received: 6 July 2024; Revised: 23 August 2024; Accepted: 6 January 2025

Abstract: This study addresses the challenge of social immaturity among elementary school students by exploring the social benefits of the Teams Games Tournament (TGT) Cooperative Learning Method. The research involved 21 third-grade students from Karyamakmur III Elementary School, using a one-group pretest-posttest experimental design. Data were collected through questionnaires measuring aspects of social maturity and analyzed using descriptive and inferential statistical methods. The results revealed a significant improvement in students' social maturity, with the average score increasing by 0.54 points, from 13.5 in the pretest to 14.04 in the posttest, supported by a significance value of $0.000 < 0.05$. The TGT method proved effective in fostering teamwork, positive interactions, and healthy competition, helping students achieve shared learning goals. The study concludes that TGT is an effective strategy for enhancing social maturity in elementary education. Teachers are encouraged to integrate TGT into classroom activities to strengthen students' interpersonal skills and create a more collaborative learning environment.

Keywords: cooperative learning method, elementary school students, social maturity, teams games tournament

How to Cite: Anggraeni, S. W., Alpian, Y., Prihamdani, D., & Fahrudin, R. (2025). Enhancing social maturity: A study on the effectiveness of TGT method in primary schools. *Jurnal Prima Edukasia*, 13(1), 45-58. doi: <http://dx.doi.org/10.21831/jpe.v13i1.75923>



Introduction

Social maturity is an essential aspect of individual development, encompassing the ability to interact, cooperate, and communicate effectively within a social environment. The primary role of social maturity is highly evident in the context of sustainable development, where socially mature individuals tend to be more aware of the impact of their behavior and decisions on the environment and society at large. The ability to collaborate, understand others' perspectives, and resolve conflicts constructively are crucial elements that support an individual's positive contribution to sustainable development (Trubina, 2021). In this context, from a social psychology perspective, social maturity is also considered important, as every individual needs to adapt to their environment to thrive. Without social maturity, a person would face various challenges in navigating daily life (Rahmawati, 2013).

The formation and development of social maturity cannot be separated from the role of the family, which has a significant influence on the individual's personality development (Rahmawati, 2013). In addition, education and social environments provide platforms that enable individuals to engage in meaningful interactions and practice self-regulation (Radul, 2023). At the primary education level, social maturity plays a critical role in shaping students' character, including their ability to build positive relationships, manage conflicts, and demonstrate empathy and responsibility (Mulia & Said, 2019). The primary education setting serves as a fundamental arena for students to develop their social maturity.

The school environment plays a crucial role in the development of social maturity. It serves as a place where students learn to build interpersonal relationships and develop emotional skills. However, Santrock (2003) noted that an unsupportive school environment can hinder the development of social maturity, especially during adolescence. Two contrasting school settings, namely homogeneous and

This is an open access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



heterogeneous, have varying impacts on students. Homogeneous schools, where students are separated by gender, can cause difficulties in social relationships and potentially foster issues such as racism. Conversely, heterogeneous schools, without gender segregation, may reduce students' competitiveness and social responsibility, ultimately affecting their academic outcomes (Ramanda & Khairat, 2017). This understanding highlights that an appropriate school environment can be a key factor in supporting students' social maturity.

Challenges in social maturity remain a significant concern in primary education, influencing students' academic success and their ability to navigate daily life. Research highlights behaviors such as reluctance to share books and stationery among peers, reflecting a lack of critical thinking and interpersonal intelligence (Amrullah & Suwarjo, 2018). These deficiencies not only hinder social interaction but also underscore the importance of developing social skills alongside academic competencies. Furthermore, social issues like bullying, limited problem-solving abilities, and mental health concerns exacerbate the challenges faced by students (Dake et al., 2003; Hughes & Kwok, 2006; Nguyen et al., 2021; Niman et al., 2021; Saptono, 2022).

In Indonesia, bullying is particularly prevalent, with significant implications for student well-being. According to the 2018 Program for International Student Assessment (PISA), 41% of 15-year-olds have experienced bullying several times a month, while 20.6% of students aged 13-17 reported similar incidents in the previous 30 days (GSHS, 2015). Common forms of bullying include physical aggression, destruction of property, threats, teasing, exclusion, and rumor-spreading, while cyberbullying through chatting apps (45%) and unauthorized sharing of personal media (41%) is also widespread. The consequences are severe, ranging from decreased academic performance especially in reading skills to a strong correlation with nearly 40% of suicide cases (UNICEF, 2020).

Observations at Karyamakmur III Elementary School revealed similar challenges related to the low level of social maturity among 3rd grade students. Behaviors such as a lack of responsibility in completing school assignments, disrespecting peers with lower grades, and engaging in mocking and cheating during exams reflect the need for targeted interventions to improve students' social maturity. To address these challenges, an educational method is required that focuses not only on academic achievement but also on supporting students' social development. One promising method is the Teams Games Tournament (TGT) cooperative learning approach.

The application of the TGT cooperative learning method emerged as an interesting solution. TGT offers a dynamic and interactive approach through games, creating a fun learning experience. Through active involvement in group learning, students are expected to develop collaboration, communication, and responsibility skills, which in turn can contribute to their social maturity. The TGT method is a popular learning method in education. In this method, students are divided into small teams that support each other and work together to complete specially designed educational tasks or games. Each team has the opportunity to compete against other teams in challenging games, stimulating student motivation and engagement. Through this process, TGT not only improves understanding of subject matter but also strengthens social, teamwork, and leadership skills (Risdiyanto, et al., 2019; S. Wahyuni et al., 2021; Wahyuni et al., 2019). Thus, the TGT method is a popular choice for educators because it provides a learning experience that is interactive, fun, and stimulates student interest.

The TGT learning method is a cooperative method that places students in groups consisting of 5 to 6 diverse people to solve academic problems (Isjoni, 2013). In the TGT learning method, each group will play games with other groups to pocket bonus points for the winning team. The TGT learning method utilizes academic tournaments accompanied by quizzes to determine the capacity value of each individual. Students compete on behalf of their respective teams to take quizzes that are intended to measure the understanding gained in class and the application of teamwork. The steps for implementing the TGT model consist of five steps, namely: 1) class presentation; 2) team learning; 3) games; 4) tournaments; and 5) group awards (Cahyani & Mustadi, 2021; Maulidnawati, 2019). The TGT is classified as a learning method that focuses learning on students. Therefore, the learning carried out is able to overcome students' loss of concentration and boredom.

Cooperative learning using the TGT method is a structured approach that considers various aspects of achieving learning goals collaboratively. Consists of five main components identified by Slavin (2015), TGT begins with the presentation of material in class, where students then form teams to ensure collective understanding of the material. Through the division of diverse groups, such as

academic ability, gender, race, or ethnicity, TGT enables strong social integration among students, creating an inclusive learning environment and encouraging cooperation.

After class presentations, students engage in academic games designed to test their knowledge. The questions in the game cover the material that has been presented, and the game is played in the form of a tournament. TGT tournaments offer an opportunity for students of comparable ability levels to compete fairly, creating an atmosphere that spurs motivation to achieve. The following is an image of 1 tournament table design adapted to the student's ability level.

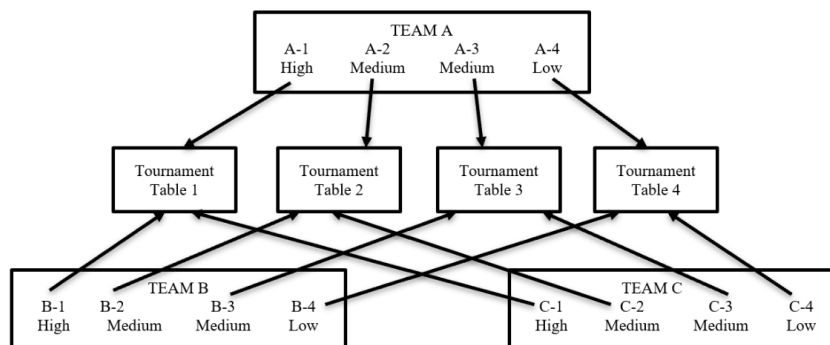


Figure 1. Tournament Table (Slavin, 2015)

A tournament is a series of several games that are competed in. Usually held at the end of the week or at the end of a unit or subject, after the teacher has given a class presentation and the group has worked on their worksheets, In addition, group recognition is an important part of the TGT process, where the team's collective efforts are recognized and rewarded with prizes or certificates, strengthening the sense of community and increasing student motivation to learn.

This study is unique in applying the TGT method to enhance social maturity in elementary school students, encompassing key indicators such as awareness of roles within a group, the desire to maintain peace, fair play, honesty, behavior towards others, understanding general principles to guide behavior, and rational conformity to customs. While most previous research has focused on aspects such as learning motivation, academic performance, or general social interactions (Capinding, 2021; Englmaier et al., 2024; Luo et al., 2020), these studies rarely explore TGT's potential to foster moral and social values critical to social maturity. Furthermore, this study adds to its uniqueness by focusing on elementary school students, a demographic often overlooked in favor of older age groups or academic outcomes. Therefore, this research fills a significant gap in understanding how TGT supports holistic social development in younger students.

The uniqueness of TGT lies in its structured teamwork and healthy competition, where every student has an equal opportunity to excel in a tournament context. Beyond improving academic skills, TGT develops students' social skills, responsibility, and independence through collaborative and engaging learning experiences. Each group member assumes specific roles and responsibilities, promoting mutual understanding and peer teaching within the group. By fostering collaboration and fair competition, TGT creates a stimulating and inclusive learning environment that supports the development of social maturity among students at Karyamakmur III Elementary School.

The aim of this research is to provide a basis for developing learning strategies that are more effective and responsive to the social development needs of students at the basic education level. By strengthening students' social maturity through the implementation of the TGT model, it is hoped that it can improve the quality of basic education and help students prepare themselves to face social challenges in the future.

Methods

This study adopts a quantitative approach using the experimental method of One Group Pretest-Posttest Design (Sugiyono, 2019). The quantitative approach was chosen because it focuses on collecting data in numerical form, which is then analyzed using statistical tools to obtain objective

results. The design employed in this study is the nonequivalent control group design, as recommended by Sugiyono (2019).

The choice of the One Group Pretest-Posttest Design is based on its practicality, as it is relatively easy to implement without requiring complex randomization processes or the presence of a control group. This makes the design particularly suitable for various research settings, especially those aimed at evaluating the effectiveness of a treatment in a specific context. Thus, this design facilitates the achievement of research objectives efficiently and measurably (Spurlock, 2018; Young et al., 2019). The One Group Pretest-Posttest Design is illustrated in Table 1 below:

Table 1. Research Design

Pretest	Treatment	Posttest
O ₁	X	O ₂
Description:		
O ₁	: Experimental class pre-test	
O ₂	: Experimental class post-test	
X	: Treatment in the experimental class using the TGT method	

This study focuses on the students of Karyamakmur III State Elementary School during the 2023–2024 academic year, with a total of 255 students. The sample was selected using a non-random sampling technique, with class III consisting of 21 students chosen as the experimental group to address constraints such as limited time and resources (Rivera, 2019; Silver & Kelsay, 2023). This class was considered representative due to its academic heterogeneity and dynamics that support the implementation of the Cooperative Learning Type TGT method. The selection also considered accessibility and minimal disruption to the regular learning schedule, allowing the research to be conducted optimally.

The data collection technique used in this research applied a questionnaire with a positive score of 1 and a negative score of 0. To process the scores from the questionnaire, a student received 1 point for answering a positive instrument and 0 points for answering a negative instrument. The test instrument used in this research measured social maturity, with two alternative answers, namely "yes" and "no."

Table 2. Social Maturity Questionnaire Grid

Indicator	Item Number	
	Positive	Negative
Awareness of his role in the group	1, 3	2, 4
The desire to try and maintain peace as much as possible	5, 8	6, 7
Have a correct view of fair play	9	10, 11
Honesty	12, 15	13, 14, 16, 17
Consider behavior towards others	18	19, 20
Understanding and use of general principles to direct his behavior	21, 29	22, 23, 30
Reasonable conformity to customs, where this conformity is always carried out without ignoring personal principles and conscience opinions about the truth	25, 27	24, 26, 28

The validity used in this research was logical validity, as logical validity assessed the instrument's validity based on reasoning results. Valid conditions were deemed to have been met because the instrument was well-designed and had been validated by expert judgment (Riyani et al., 2017). To measure the validity of the social maturity questionnaire, the point-biserial correlation formula was used. Meanwhile, the reliability of the instrument was analyzed using the KR-20 formula (Yusup, 2018). The reliability result was 0.749, indicating that the social maturity questionnaire instrument had high reliability.

Data analysis in this research was carried out to answer the research questions that had been previously formulated. Using a quantitative approach, statistical analysis techniques were used to extract information from the collected data. First, descriptive statistics were used to provide a general

description of the data, such as the mean, median, mode, and standard deviation. Second, inferential statistics were used to determine the extent of similarity between the sample results and the population as a whole. The analysis began with the normality test, which was conducted to check whether the data came from a normal distribution using the one-sample Kolmogorov-Smirnov test. Meanwhile, the homogeneity of variance test was conducted using the Bartlett test to ensure data homogeneity between classes. Next, hypothesis testing was conducted to determine whether the hypothesis aligned with the research findings. The t-test formula was used for paired samples to provide insight into the effect of the treatment given. Thus, the analysis of this data was a critical stage in gaining an in-depth understanding of the phenomenon under study.

Results and Discussion

Results

Description of research data

The description of the data presented from the results of this research is to present data obtained in the field. This research uses a one-group pretest-posttest design, which only uses one class to be presented as an experimental class. This section will explain the process and results, as well as discuss the data processing that has been carried out. The subjects of this research consisted of 21 class III students.

The social maturity of elementary school students is obtained from the results of the pretest at the start of learning. The descriptive and pretest measures of social maturity of elementary school students are shown in Table 3.

Table 3. Descriptive Statistics of Pretest Scores on the Influence of the Times Games Tournament TGT Method on the Social Maturity of Elementary School Students

Mark	N	Minimum	Maximum	Mean	Modus	Median	Standar Deviation
Pretest	21	3	23	13.5	10	11	6.56
Valid N	21						

Based on table 3 above, it shows that the statistical description for the social maturity pretest of elementary school students is that the maximum score for the pretest is 23 and the minimum score is 3, with a mean of 13.5, a mode of 10, a median of 11, and a standard deviation of 6.56.

The social maturity of elementary school students is obtained from the results of the posttest at the end of learning after the students receive treatment. The descriptive and posttest social maturity of elementary school students is shown in Table 4 below.

Table 4. Descriptive Statistics of Posttest Values on the Influence of the Times Games Tournament TGT Method on the Social Maturity of Elementary School Students

Mark	N	Minimum	Maximum	Mean	Modus	Median	Standar Deviation
Posttest	21	3	23	14.04	20	14	6.22
Valid N	21						

Based on Table 4 above, it shows that the statistical description for the social maturity posttest for elementary school students is that the maximum score for the posttest is 23 and the minimum score is 3, with a mean of 14.04, a mode of 20, a median of 14, and a standard deviation of 6.22.

Data Analysis and Prerequisite Testing

Before testing the hypothesis, prerequisite tests are carried out first, namely the normality test and the data homogeneity test. The results of the experimental class pretest and posttest normality tests are shown in Table 5 and 6, as follows.

Table 5. Pretest Normality Test Results for Experimental Class

One-Sample Kolmogorov-Smirnov Test		
		Pretest
N		21
Normal Parameters ^a	Mean	13.5238
	Std. Deviation	6.56216
Most Extreme Differences	Absolute	.179
	Positive	.174
	Negative	-.179
Kolmogorov-Smirnov Z		.820
Asymp. Sig. (2-tailed)		.512
a. Test distribution is Normal.		

Table 6. Posttest Normality Test Results for Experimental Class

One-Sample Kolmogorov-Smirnov Test		
		Posttest
N		21
Normal Parameters ^a	Mean	14.0476
	Std. Deviation	6.22476
Most Extreme Differences	Absolute	.168
	Positive	.116
	Negative	-.168
Kolmogorov-Smirnov Z		.769
Asymp. Sig. (2-tailed)		.595
a. Test distribution is Normal.		

The results of the normality test analysis in Table 5 show a value of 0.512 for the pretest, while in Table 6, the value obtained for the posttest is 0.595. Based on normality testing criteria, if the test result is greater than 0.05, then the data distribution is considered normal. Thus, because both values, both for the pretest and posttest, exceed the value of 0.05, it can be concluded that the distribution of items at both measurement stages, both pretest and posttest, can be considered normal, which allows further statistical analysis to be carried out.

The next stage is a homogeneity test, which is carried out to find out whether the experimental class used has homogeneous variants or not. The test results using Levene's statistical test show a value of 0.994 for both pretest and posttest conditions, as seen in Table 7. This value is greater than 0.05, which means there is no significant difference between the pretest and posttest variants. In accordance with the rule, if the H0 value is greater than 0.05, the distribution of test items can be said to be homogeneous. Thus, it can be concluded that the distribution of questions in the pretest and posttest in the experimental class can be said to be homogeneous and meets the requirements to proceed to the next stage of analysis.

Table 7. Results of Pretest and Posttest Homogeneity Test for Experimental Class

Levene Statistic	df1	df2	Sig.
.203	10	27	.994

Hypothesis testing

Hypothesis testing was carried out to determine whether there was an influence on the average final data on the social maturity of elementary school students at Karyamakmur III Elementary School in the experimental class. In the paired samples test, the data is shown in Table 8 below.

Table 8. Hypothesis Test Results Paired Simple Test One-Sample Test

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Pretest	9.444	20	.000	13.52381	10.5368	16.5109
Posttest	10.342	20	.000	14.04762	11.2141	16.8811

Based on Table 8, the results of the one simple test show that the significance value of the pretest and posttest is 0.000, which is less than the significance limit set at 0.05. This indicates that the null hypothesis (H0) must be rejected. Thus, there is sufficient evidence to state that there is a significant influence from the application of the TGT cooperative learning method on the social maturity of elementary school students.

Discussion

Based on the research data, it is evident that there is a general increase in the social maturity of elementary school students from pretest to posttest. This is reflected in the increase in the mean from 13.5 in the pretest to 14.04 in the posttest, although the mode of the posttest is higher than the pretest (20 compared to 10) and the median slightly increased (14 compared to 11). Additionally, the standard deviation in the posttest indicates that the data distribution is slightly more concentrated around the mean compared to the pretest. This indicates that the TGT method is effective in improving students' social skills. TGT enables students to engage in intense social interaction and collaboration during the learning process, where they learn to work together, appreciate others' opinions, and compete healthily. Furthermore, the TGT method helps create an inclusive learning environment, enhancing active participation and overall social maturity of students (Barnaba & Tou, 2014). This improvement shows that TGT not only supports academic achievement but also plays a significant role in the social development of students, creating a learning atmosphere that fosters positive interaction and personal growth.

The implementation of the TGT cooperative learning model has been shown to have a positive impact on students' social maturity and academic performance in various studies. The TGT method fosters a competitive yet collaborative learning environment where students engage in group games to enhance their understanding of concepts and develop social skills (Fahira et al., 2023; Matitaputty et al., 2023). Research indicates that using the TGT model leads to increased learning outcomes in social sciences and higher levels of cooperation among students (Pada & Amir, 2022; Banani & Aman, 2022). Additionally, the TGT model has been associated with benefits such as improved peer tutoring, enhanced self-esteem, and increased motivation towards learning (Baydar, 2020).

The implementation of cooperative learning methods such as TGT not only enhances academic achievement but also plays a crucial role in developing students' social skills. In the TGT environment, students are encouraged to actively interact and collaborate in groups, helping them learn how to communicate effectively, resolve conflicts, and build positive interpersonal relationships. This aligns with findings from Lestari & Azizah (2023), who demonstrated that integrating social emotional learning (SEL) into classroom practices through activities like group work, class agreements, and reflection fosters student collaboration, empathy, and social awareness. SEL's integration into both classroom and broader school environments, as in the FSM model, supports similar outcomes, enabling students to thrive socially and emotionally. Furthermore, students involved in TGT often show improvements in self-management skills and responsibility, as they have to organize their group tasks and ensure that each member contributes fairly (Johnson & Johnson, 2001). Thus, the application of TGT is not only effective in enhancing academic performance but also invaluable in supporting students' social and emotional development. Research also shows that the TGT method helps students develop empathy and social awareness, as they must listen to and appreciate their peers' perspectives during the learning process (Fahira et al., 2023; Matitaputty et al., 2023). Furthermore, students involved in TGT often show improvements in self-management skills and responsibility, as they have to organize their group tasks and ensure that each member contributes fairly (Johnson & Johnson, 2001). Thus, the application of TGT is not only effective in enhancing academic performance but also invaluable in supporting students' social and emotional development.

Developing empathy and social awareness among students is essential for their holistic growth and ability to understand others' perspectives. Research suggests that social awareness enables students to recognize and interpret their peers' thoughts, emotions, and feelings (Ying & Kutty, 2023). Empathy, a critical skill that requires nurturing, promotes understanding and peaceful interactions, thereby reducing conflicts and fostering a calm and supportive environment (Nurhasanah & Effendi, 2019). Various studies have emphasized the importance of educational approaches in enhancing students' social awareness and empathy, which are integral to their overall development.

The TGT method exemplifies such an approach by not only cultivating academic intelligence but also fostering social and emotional maturity. By creating an inclusive and harmonious learning environment, TGT helps students develop essential interpersonal skills while achieving academic goals. Supporting this, the findings of Ngatman et al. (2024) underscore the effectiveness of cooperative learning in enhancing both academic and social outcomes. Through team-based learning, multimedia quizzes, and group rewards, students not only deepened their understanding of the material but also improved collaboration and communication within their groups (Mustadi et al., 2024). These results highlight the transformative potential of cooperative learning approaches, such as TGT, in simultaneously developing students' cognitive abilities and social competencies.

If the results of the one simple test show a significance value that is smaller than the specified significance limit ($0.000 < 0.05$), then H_0 is rejected. This shows that there is a significant influence from the application of the TGT cooperative learning method on the social maturity of elementary school students (Viantorus et al., 2024; Brilatin & Wibowo, 2024). These findings are in line with the principles of the constructivist approach theory of learning, which emphasizes the active construction of knowledge through experience and reflection, with an emphasis on the role of social interaction in the learning process (Schunk & Zimmerman, 2003). Constructivist learning environments, emphasized by Newton et al. (2013), result in active, student-centered learning, where positive interactions between students are emphasized to encourage active knowledge construction (Toding & Wibowo, 2024; Efendi et al., 2024; Halimah & Wibowo, 2024). The constructivist view also emphasizes the importance of students being actively involved in the learning process and building knowledge based on experience and previous knowledge (Sugrah, 2020; Nurhikmah & Wibowo, 2024). Constructivist learning theory, according to Sukma et al. (2022), emphasizes that learning is based on students' mental constructions, which are influenced by their beliefs and attitudes, with an emphasis on students' active role in shaping their understanding.

The implementation of the TGT method in educational environments has proven to foster a learning atmosphere that encourages student collaboration. TGT is a cooperative learning technique that involves grouping students into teams to collaborate and achieve common goals through structured games or tournaments. This method promotes positive interdependence, individual accountability, social skills, face-to-face interaction, group processing, and equal opportunities for all participants (Luo et al., 2020). In the context of TGT, students are encouraged to work together in teams, which helps them develop essential social skills such as conflict resolution and building positive interpersonal relationships.

According to Johnson and Johnson (1987), cooperative learning encourages students to work together and communicate effectively. In a TGT environment, students learn to listen to and appreciate their peers' opinions, as well as collaborate to achieve common goals. This is crucial in helping students develop critical social skills such as the ability to resolve conflicts constructively and build healthy, positive interpersonal relationships. Thus, TGT not only supports academic achievement but also plays a significant role in students' social and emotional development, creating an inclusive and harmonious learning environment (Rahmawati & Mahmudi, 2014).

Various studies support the efficacy of the TGT method in improving learning outcomes and fostering collaboration between students. Research shows that the TGT method can increase students' motivation, motor skills, learning attitudes, and academic achievement (Atma et al., 2021; Budiarti, 2022; Juwita et al., 2017; Luo et al., 2020). By involving students in team-based activities and establishing a competitive yet collaborative learning atmosphere, the TGT method motivates students to collaborate, communicate effectively, and help each other in their learning (Fang et al., 2022; Mahardika & Putra, 2020; Primadiati & Djukri, 2017). In addition, the TGT method has proven to be very useful in subjects such as mathematics, science, and language learning (Budiarti, 2022; Wibowo, 2024). By integrating elements of competition, teamwork, and active participation, the TGT method not

only improves students' academic performance but also fosters important social and cognitive skills (Budiarti, 2022; Juwita et al., 2017; Mahardika & Putra, 2020). Additionally, the TGT method can be adapted to a variety of educational environments, including online learning environments, to improve student engagement and learning outcomes (Sugiyati & Indriani, 2022; Harokah et al., 2024).

The TGT method, as a cooperative learning method that involves teamwork in games or academic tournaments, has the potential to increase students' social maturity. Based on the research mentioned, TGT has been proven to have a positive impact on students, including increasing self-efficacy, fostering teamwork, creating a fun learning environment, increasing motivation, and improving learning outcomes (Annurwanda, 2018; Budiarti, 2022; Wahyuni & Handican, 2023). The development of self-efficacy and teamwork triggered by TGT can make a significant contribution to students' social maturity. By working in teams, students learn to collaborate, communicate, and interact well with their peers. This allows them to understand other people's perspectives, develop empathy, and learn to manage conflict constructively, all of which are important aspects of social maturity (Ke & Grabowski, 2007; Masfufah & Wibowo, 2024). Thus, TGT provides opportunities for students to hone their social skills through teamwork, positive interactions, and healthy competition in a supportive learning environment. This indirectly strengthens their social maturity, in line with research findings showing the positive impact of TGT on students' self-efficacy and teamwork.

However, this study has limitations that should be acknowledged. First, the use of non-random sampling limits the generalizability of the findings to a broader population. Second, the study primarily focuses on the short-term impacts of the TGT method, leaving its long-term effects unexplored. Third, external factors, such as teacher facilitation style, classroom dynamics, or individual differences among students, were not controlled, which might have influenced the results. Addressing these limitations can improve the robustness and applicability of the findings.

Future research should explore the long-term impacts of the TGT method on students' academic and social development. Employing random sampling techniques in future studies could also enhance the generalizability of the results. Additionally, examining the role of external factors, such as teacher interventions and peer relationships, can provide deeper insights into the conditions that maximize the effectiveness of the TGT method.

In practical terms, the findings of this study offer valuable implications for educators and policymakers. Schools are encouraged to incorporate cooperative learning strategies like TGT to create an inclusive and interactive learning environment. By promoting collaboration and empathy, TGT can enhance both academic performance and social-emotional skills, aligning with the goals of holistic education. Policymakers can also consider these findings in shaping educational policies that emphasize collaborative and student-centered learning approaches.

Conclusion

Based on the results of analysis and hypothesis testing, research confirms that the application of the TGT Cooperative Learning Method has a significant impact on increasing the social maturity of elementary school students. With data showing an increase from pretest to posttest and hypothesis testing confirming the significant effect of implementing TGT, these findings are consistent with the principles of the constructivist approach theory in learning. Therefore, implementing TGT in an educational context can be an effective strategy for strengthening students' social maturity through positive interaction, communication, and teamwork in a supportive learning environment.

References

- Amir P., & Faizal A. (2022). Elevating social sciences learning outcomes: TGT type cooperative learning model. *Jurnal Ilmiah Sekolah Dasar*, 6(4), 620–626. <https://doi.org/10.23887/jisd.v6i4.54046>
- Amrullah, K., & Suwarjo, S. (2018). The effectiveness of the cooperative problem-based learning in improving the elementary school students' critical thinking skills and interpersonal intelligence.

Jurnal Prima Edukasia, 6(1), 66–77. <https://doi.org/10.21831/jpe.v6i1.11253>

- Annurwanda, P. (2018). The effect of teams games tournament on mathematics self-efficacy in junior high schools. *SHS Web of Conferences*, 42, 00079. <https://doi.org/10.1051/shsconf/20184200079>
- Atma, B. A., Azahra, F. F., & Mustadi, A. (2021). Teaching style, learning motivation, and learning achievement: Do they have significant and positive relationships? *Jurnal Prima Edukasia*, 9(1), 23–31. <https://doi.org/10.21831/jpe.v9i1.33770>
- Banani, U. A., & Aman, A. (2022). The effect of TGT cooperative learning model Assisted by multimedia learning on cooperation and learning outcomes of class V elementary school students for social sciences. *Al-Ishlah: Jurnal Pendidikan*, 14(3), 2649–2656. <https://doi.org/10.35445/alishlah.v14i3.1211>
- Barnaba, H. Y., & Tou, A. B. (2014). Improving English vocabulary mastery through anagram media in the cooperative method of teams games tournament type. *Jurnal Prima Edukasia*, 2(1), 80. <https://doi.org/10.21831/jpe.v2i1.2646>
- Basir, U. P. M., & Pratiwi, E. Y. R. (2021). Reading skill result of grade II students by using TGT model at Indonesian language lesson. *IJPSE Indonesian Journal of Primary Science Education*, 1(2), 18–24. <https://doi.org/10.33752/ijpse.v1i2.1281>
- Baydar, A. (2020). Pre-service primary teachers' opinions on team-games-tournaments. *International Education Studies*, 14(1), 86. <https://doi.org/10.5539/ies.v14n1p86>
- Brilatin, A., & Wibowo, S. E. (2024). Elementary teacher leadership of pioneer teacher program alumnae in Yogyakarta City. *Jurnal Prima Edukasia*, 12(1), 129–139. <https://doi.org/10.21831/jpe.v12i1.69044>
- Budiarti, L. (2022). Improving the learning outcomes of junior high school students in grade ix through the application of the teams games tournaments learning model on the human reproductive system material. *Journal of Social Studies Arts and Humanities (JSSAH)*, 2(1), 01–06. <https://doi.org/10.33751/jssah.v2i1.5052>
- Cahyani, N., & Mustadi, A. (2021). Learning motivation of elementary school children: Is it possible to be increased using the teams games tournament model? *Al-Bidayah: Jurnal Pendidikan Dasar Islam*, 12(2), 183–198. <https://doi.org/10.14421/al-bidayah.v12i2.583>
- Capinding, A. T. (2021). Effect of Teams-Games Tournament (TGT) strategy on mathematics achievement and class motivation of grade 8 students. *International Journal of Game-Based Learning*, 11(3), 56–68. <https://doi.org/10.4018/IJGBL.2021070104>
- Dake, J. A., Price, J. H., & Telljohann, S. K. (2003). The nature and extent of bullying at school. *Journal of School Health*, 73(5), 173–180. <https://doi.org/10.1111/j.1746-1561.2003.tb03599.x>
- Efendi, U. P., Wibowo, S. E., Sartono, E. K. E., & Lena, M. S. (2024). The effectiveness of differentiated instruction in elementary school subject: Teachers' Perceptions. *Jurnal Pendidikan Progresif*, 14(3), 1784–1799. <https://doi.org/10.23960/jpp.v14.i3.2024121>
- Englmaier, F., Grimm, S., Grothe, D., Schindler, D., & Schudy, S. (2024). The efficacy of tournaments for nonroutine team tasks. *Journal of Labor Economics*, 42(4), 921–948. <https://doi.org/10.1086/725553>
- Fahira, N., Buwono, S., Karolina, V., Wiyono, H., & Atmaja, T. S. (2023). Influence of the TGT cooperative learning model on students' social science academic performance. *Edumaspul: Jurnal Pendidikan*, 7(2), 3599–3605. <https://doi.org/10.33487/edumaspul.v7i2.6829>
- Fang, Y. Y., Lin, Y. Y., & Lu, L. T. (2022). *Competition to promote teaching and improving nursing*

skill using the team game tournament method with learning from competition. 1–15. Retrieved from <https://www.researchsquare.com/article/rs-1621427/latest.pdf>

- Halimah, S., & Wibowo, S. E. (2024). Optimization of science learning outcomes for series and parallel electrical circuits through project-based learning methods for grade VI elementary school. *Journal of Education, 9*(1). <https://journal.stkipsingkawang.ac.id/index.php/JETL/article/view/6414>
- Harokah, S., Wibowo, S. E., Sudigdo, A., Yudianto, A., & Wulansari, I. Y. (2024). The effectiveness of problem-based learning methods in improving prospective elementary school teachers' critical thinking skills. *Al Ibtida: Jurnal Pendidikan Guru MI, 11*(1). <https://doi.org/10.24235/al.ibtida.snj.v11i1.14104>
- Hughes, J. N., & Kwok, O. (2006). Classroom engagement mediates the effect of teacher–student support on elementary students' peer acceptance: A prospective analysis. *Journal of School Psychology, 43*(6), 465–480. <https://doi.org/10.1016/j.jsp.2005.10.001>
- Isjoni. (2013). *Cooperative learning*. Alfabeta.
- Johnson, D. H., & Johnson, R. T. (2001). *Meaningful assessment: A manageable and cooperative process*. A Pearson Education Company.
- Juwita, L., Sari, N. P. W. P., & Septianingrum, Y. (2017). The effect of Team Game Tournament (TGT) cooperative learning method application towards learning motivation and achievement. *Indonesian Nursing Journal of Education and Clinic (INJEC), 2*(2), 154. <https://doi.org/10.24990/injec.v2i2.142>
- Ke, F., & Grabowski, B. (2007). Gameplaying for maths learning: Cooperative or not? *British Journal of Educational Technology, 38*(2), 249–259. <https://doi.org/10.1111/j.1467-8535.2006.00593.x>
- Lestari, S., & Azizah, N. N. (2023). The implementation of social emotional learning approach in elementary school. *Jurnal Prima Edukasia, 11*(2), 266–275. <https://doi.org/10.21831/jpe.v11i2.62179>
- Luo, Y.-J., Lin, M.-L., Hsu, C.-H., Liao, C.-C., & Kao, C.-C. (2020). The effects of team-game-tournaments application towards learning motivation and motor skills in college physical education. *Sustainability, 12*(15), 6147. <https://doi.org/10.3390/su12156147>
- Matitaputty, J. K., Susanto, N., Fadli, M. R., Ramadhan, I., & Manuputty, C. J. (2023). The effect of Team Games Tournament (TGT) in social science learning to improve student learning outcomes. *Al Ibtida: Jurnal Pendidikan Guru MI, 10*(2), 374. <https://doi.org/10.24235/al.ibtida.snj.v10i2.15037>
- Jumrah, A. M. (2019). Application of cooperative learning model type Teams Games Tournament (TGT) to improve social students' learning outcomes of grade IV students of Inpres Barrang Caddi II Elementary School, Makassar City. *AIJER: Algazali International Journal Of Educational Research, 1*(2), 97-108. <https://doi.org/10.59638/aijer.v1i2.106>
- Masfufah, M., & Wibowo, S. E. (2024). Enhancing listening ability and retelling skills of elementary school students: Exploring the impact of nusantara animated videos. *AL-ISHLAH: Jurnal Pendidikan, 16*(3). <https://doi.org/10.35445/alishlah.v16i3.5647>
- Mulia, S. W., & Said, A. (2019). Relationship of emotional maturity with social interaction of student in Ranah Batahan Pasaman Barat I Junior High School. *Jurnal Neo Konseling, 1*(4). <https://doi.org/10.24036/00158kons2019>
- Mustadi, A., Wibowo, S. E., & Prehadini, T. (2024). Analysis of the need for interactive multimedia development for second language learning in primary schools. *Journal of Ecohumanism, 3*(7). <https://doi.org/10.62754/joe.v3i7.4580>

- Newton, S. E., Harris, M., & Pittiglio, L. (2013). Constructivist philosophy and nursing student medication calculations. *Research and Theory for Nursing Practice, 27*(2), 88–94. <https://doi.org/10.1891/1541-6577.27.2.88>
- Nguyen, C. K., Nguyen, M. L. T., Tran, H. T., & Nguyen, T. A. N. (2021). Development and preliminary evaluation of the interpersonal problem-solving inventory for elementary school students. *British Journal of Educational Psychology, 91*(3), 1035–1054. <https://doi.org/10.1111/bjep.12406>
- Niman, S., Dewa, D. K., & Indriarini, M. Y. (2021). The prevalent anxiety disorders among elementary students in Bandung, Indonesia. *Journal of Public Health Research, 10*(1_suppl), jphr.2021.2408. <https://doi.org/10.4081/jphr.2021.2408>
- Nurhasanah, N., S., N., & Effendi, Z. M. (2019). The effectiveness of group counseling with role-playing techniques to increase student empathy. *International Journal of Applied Counseling and Social Sciences, 1*(1), 54–61. <https://doi.org/10.24036/005304ijaccs>
- Nurhikmah, I., & Wibowo, S. E. (2024). Improving mathematics learning outcomes on integer materials through think pair and share learning models. *Journal of Education, 9*(1). <https://journal.stkipsingkawang.ac.id/index.php/JETL/article/view/6415>
- Oktayana M. I. K. D., & Putra, M. (2020). Teams games tournament assisted by question card increases student knowledge competence in science learning. *International Journal of Elementary Education, 4*(3), 301. <https://doi.org/10.23887/ijee.v4i3.25956>
- Primadiati, I. D., & Djukri, D. (2017). The influence of collaborative learning models on increasing motivation and science learning outcomes of grade IV elementary school students. *Jurnal Prima Edukasia, 5*(1), 47–57. <https://doi.org/10.21831/jpe.v5i1.7712>
- Rahmawati, A. (2013). Social maturity, gender, and perceptions of father-mother interactions. *Jurnal Psikologi Tabularasa, 8*(2), 733-741. <https://doi.org/10.26905/jpt.v8i2.216>
- Rahmawati, R. D., & Mahmudi, A. (2014). The effectiveness of StAD and TAI cooperative learning reviewed from students' mathematics learning activities and achievements. *Jurnal Prima Edukasia, 2*(1), 102. <https://doi.org/10.21831/jpe.v2i1.2648>
- Ramanda, P., & Khairat, I. (2017). Differences in social maturity of students coming from homogeneous schools and heterogeneous schools. *Jurnal Kajian Bimbingan dan Konseling, 2*(4), 148–156. <https://doi.org/10.17977/um001v2i42017p148>
- Risdiyanto, T. A., Syamsurizal, S., Yogica, R., & Yuniarti, E. (2019). The effect of Teams Games Tournamenty (TGT) models containing science literacy on student's learning competencies in respiratory system human material. *Jurnal Atrium Pendidikan Biologi, 4*(1), 115. <https://doi.org/10.24036/apb.v4i1.4981>
- Rivera, J. D. (2019). When attaining the best sample is out of reach: Nonprobability alternatives when engaging in public administration research. *Journal of Public Affairs Education, 25*(3), 314–342. <https://doi.org/10.1080/15236803.2018.1429821>
- Riyani, R., Maizora, S., & Hanifah, H. (2017). Validity test of test development to measure relational understanding ability in quadratic equation material for grade viii junior high school students. *Jurnal Penelitian Pembelajaran Matematika Sekolah (JP2MS), 1*(1), 60–65. <https://doi.org/10.33369/jp2ms.1.1.60-65>
- Santrock, J. W. (2003). *Adolescence: Adolescent development*. Erlangga.
- Saptono, B. (2022). How does bullying happen in elementary school? *Jurnal Prima Edukasia, 10*(2), 187–193. <https://doi.org/10.21831/jpe.v10i2.50364>

- Schunk, D. H., & Zimmerman, B. J. (2003). Self-regulation and learning. In *Handbook of Psychology* (pp. 59–78). Wiley. <https://doi.org/10.1002/0471264385.wei0704>
- Silver, I. A., & Kelsay, J. D. (2023). The moderating effects of population characteristics: a potential biasing factor when employing non-random samples to conduct experimental research. *Journal of Experimental Criminology, 19*(1), 107–118. <https://doi.org/10.1007/s11292-021-09478-7>
- Slavin, R. E. (2015). *Cooperative learning theory, research and practice*. Nusa Media.
- Spurlock, D. R. (2018). The single-group, pre- and posttest design in nursing education research: It's time to move on. *Journal of Nursing Education, 57*(2), 69–71. <https://doi.org/10.3928/01484834-20180123-02>
- Sugiyati, K., & Indriani, L. (2022). Utilizing Teams-Game-Tournament (TGT) to enhance students' grammatical understanding in online learning setting. *Metathesis: Journal of English Language, Literature, and Teaching, 6*(2), 168–178. <https://doi.org/10.31002/metathesis.v6i2.154>
- Sugiyono. (2019). *Educational research methods (quantitative, qualitative, combination, R&D, and educational research)*. Alfabeta.
- Sugrah, N. U. (2020). Implementation of constructivist learning theory in science learning. *Humanika, 19*(2), 121–138. <https://doi.org/10.21831/hum.v19i2.29274>
- Sukma, F. M., Ratnaningsih, A., & Suyoto, S. (2022). Development of learning videos based on constructivistic learning theory on the theme of 8 areas I live in grade IV elementary school. *Edunesia: Jurnal Ilmiah Pendidikan, 3*(2), 157–167. <https://doi.org/10.51276/edu.v3i2.255>
- Toding, D. A., & Wibowo, S. E. (2024). Enhancing learning outcomes in science subjects through demonstration method for fifth grade at inpres Seringgu elementary school. *Journal of Education, 9*(1). <https://journal.stkipsingkawang.ac.id/index.php/JETL/article/view/6421>
- Trubina, G. (2021). Social competencies for pre-professional socialization of the student's personality in the context of sustainable development. *E3S Web of Conferences, 295*, 05027. <https://doi.org/10.1051/e3sconf/202129505027>
- UNICEF. (2020). *Bullying in Indonesia: Key facts, solutions and recommendations*. UNICEF Indonesia.
- Viantorus, V. A. V., Wibowo, S. E., & Firdaus, F. M. (2024). Enhancing fourth-grade elementary students mathematical reasoning skills through the SAVI model. *Jurnal Pendidikan Progresif, 14*(3), 2076–2087. <https://doi.org/10.23960/jpp.v14.i3.2024141>
- Wahyuni, W. T., Fitri, R., Selaras, G. H., & Syamsurizal, S. (2019). The effect of teams Games Tournament (TGT) models containing science literacy on students' learning competencies in ecology material at Junior High School 10 Padang. *Jurnal Atrium Pendidikan Biologi, 4*(3), 54. <https://doi.org/10.24036/apb.v4i3.6162>
- Wahyuni, N. R. S., & Handican, R. (2023). Systematic literature review: Improving mathematics learning outcomes through the teams games tournament model. *Griya Journal of Mathematics Education and Application, 3*(1), 23–35. <https://doi.org/10.29303/griya.v3i1.267>
- Wibowo, S. E. (2024). How is the application of language games in learning Indonesian in elementary schools based on the merdeka curriculum? *Journal of Electrical Systems, 20*(4s), 1092–1098. <https://doi.org/10.52783/jes.2153>
- Ying, K. W., & Kutty, F. M. (2023). Parental Involvement and peer relationships towards primary school students social awareness. *International Journal of Academic Research in Progressive Education and Development, 12*(2). <https://doi.org/10.6007/IJARPED/v12-i2/16767>

Young, D. K. W., Ng, P. Y. N., Cheng, D., & Leung, C. H. (2019). A vocational recovery model for young people with mental illness: A pretest–posttest. *Research on Social Work Practice, 29*(5), 495–505. <https://doi.org/10.1177/1049731518757031>

Yusup, F. (2018). Validity and reliability test of quantitative research instruments. *Jurnal Tarbiyah: Jurnal Ilmiah Kependidikan, 7*(1), 17–23. <https://doi.org/10.18592/tarbiyah.v7i1.2100>