



Application of The Teams Games Tournament Learning Model in Improving Science Learning Outcomes in Elementary School Students

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ABSTRACT

This research can be carried out with the aim of improving science learning outcomes using the TGT (Teams Games Tournament) learning model. This type of research is classroom action research (PTK), which is divided into four phases: planning, carrying out, observing and evaluating, and reflecting. Descriptive analysis is the data analysis method used in this study to give a general picture of the change in student learning outcomes. taught utilizing the Teams Games Tournament (TGT) learning approach, which includes learning test results and observation sheets of instructor and student activities. Learning objectives for science in class V at SDN 1 Wolasi. The Teams Games Tournament (TGT) learning approach has seen a notable growth in applicability. The pre-cycle to cycle II results demonstrate this; pre-cycle scores averaged 63.33 with a learning completeness of 61.11%, while learning completeness after the first cycle averaged 77.78 with a 70% score. Following cycle II, learning completeness averaged 87.5, or 83.33%. Between pre-cycle I and cycle II, there was an increase of 45.34%. in order for Wolasi 1 Elementary School's student learning outcomes to be enhanced by the TGT learning approach.

Kata Kunci: *Learning Model, Teams Games Tournament, Learning Outcomes*

1. Introduction

One of the subjects that must be studied in elementary school is natural science (IPA). In modern learning, students only learn science by memorizing concepts and theories and are not accustomed to improving their thinking skills by emphasizing their direct experiences. (Nadira et al., 2022) According to Nurhayati et al. (2022), natural science is a type of knowledge that is systematically arranged and is usually limited to natural phenomena. This includes knowledge about living things and the surrounding nature.

The purpose of elementary science learning is to improve students' understanding of the concept of natural science and its relationships and to foster a scientific attitude to solve the problems faced. In addition, they want to

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increase awareness of the greatness and power of its creator. Science learning is related to all natural resources (Fitria et al., 2021). Science learning focuses on the real distribution of professionalism to students about development potential, allowing students to experience the natural environment through a discovery process that will help them experience the natural environment (Irsan, 2021).

Nazilatul Mifroh stated that teachers must understand the characteristics of each student so that they can understand the ideas and learning approaches used in each subject taught to students. As a result, Jean Piaget's Cognitive Development theory is very suitable to be applied to elementary school students, especially those studying science. Their development will be directly influenced by the lesson. The results of field observations conducted on January 17, 2022 at SDN 1 Wolasi showed that several factors caused poor learning outcomes, especially in grade V: 1) Teachers more often use conventional approaches, such as lectures, questions and answers, and taking notes on lesson materials; they do not use innovative learning models, which make students passive during learning; they do not use enough media; they have difficulty understanding the material; and they often tell stories with their deskmates during the learning process (Observation Results, Monday, January 17, 2022).

The learning model developed by Johns Hopkins is the team game tournament model. TGT (Teams Games Tournament), originally created by David DeVries and Keith Edwards, is a game that divides students into heterogeneous groups of four or more students. The TGT (Teams Games Tournament) learning model is one of the learning models that can help students work together better in class because it allows them to actively develop their knowledge (Fitria et al., 2021). The process that will be gone through in the cooperative learning model of the Teams Games Tournament (TGT) type includes class presentations, group learning, games, matches, and group awards. To form a group, students are divided into groups that have the same abilities and then combined into a new group. All members of this new group then occupy the tournament table and start the academic game. After each group has calculated their total score, each group is added up. The winner of the match, who has the highest score compared to the other members, will receive an award (Adiputra & Heryadi, 2021).

TGT (Teams Games Tournament) can be used in various fields such as language and social sciences. Because they compete with groups that have equal ability levels, students will enjoy the tournament atmosphere. (Hendra & Rahayu, 2020). The learning model (Teams Games Tournament), also known as TGT, combines games and group learning. This model is also related to the way a person learns and the learning style of students. The Teams Games Tournament learning model, or TGT, can improve students' understanding of concepts because students are at the elementary school stage, where they still like to play (Lastia, 2021). One way to engage students in their own education is by using the TGT cooperative learning strategy. The TGT team game tournament paradigm is a simple approach to cooperative learning that brings together students from different backgrounds as peer tutors (Handayani et al., 2024). This Teams Games Tournament (TGT) learning model gives students the opportunity to improve their critical thinking skills in solving problems. This model also fosters a spirit of learning and a sense of responsibility towards fellow group members (Fitria et al., 2021). The study entitled "Implementation of the

TGT (Teams Games Tournament) Learning Model in Improving Science Learning Outcomes of Class V SDN 1 Wolasi, South Konawe Regency" is based on the background mentioned above.

2. Methods

This study uses classroom action research involving concrete actions as part of the research to solve learning problems. Research involves many steps. Each step provides information about the researcher's previous work and becomes a consideration for the next step (Ginting et al., 2024). CAR consists of action, research, and class. Research is the process of seeing something using certain methodological rules to obtain useful data and information to improve the quality of something that is interesting and important to researchers. While a class is a group of students who simultaneously receive the same lesson from a teacher, action is an activity carried out with a specific purpose (Yuwono, 2016). The main objective of this study is to improve science learning outcomes through the Teams Games Tournament (TGT) learning model. This study will improve science learning outcomes through the TGT model in class V SDN 1 Wolasi. The subjects of this research were 18 students.

This research was conducted in two cycles based on the Kemmis & McTaggart model, which includes the stages of planning, implementation, observation, and reflection. In Cycle I, the planning stage includes the preparation of lesson plans, teaching materials, observation instruments, and evaluation questions, as well as the formation of study groups in the Teams Games Tournament (TGT) model. The implementation of learning is carried out by delivering materials, group discussions, academic games, and tournaments between groups. Observations are made to observe student activities, involvement in learning, and obstacles that arise. The results of observations and tests are analyzed in the reflection stage to identify deficiencies and design improvements in the next cycle. In Cycle II, improvements are implemented based on the results of the Cycle I reflection, such as increasing the variety of games and more intensive assistance for students who experience difficulties. The implementation of learning continues to use the TGT model with more refined strategies. Observations are again carried out to evaluate student involvement and learning effectiveness. Learning outcome data from Cycle II is compared with Cycle I to see the increase in student understanding. If learning outcomes show significant improvement and meet the success indicators, the research is declared complete; if not, the cycle can be continued until the objectives are achieved.

Data collection techniques in this classroom action research were carried out through observation, learning outcome tests, and documentation. Observation was used to observe the learning process and student involvement in the Teams Games Tournament (TGT) learning model. Learning outcome tests in the form of evaluation questions were given in each cycle to measure the increase in students' understanding of science material. In addition, documentation such as photos, learning recordings, and field notes were used to support data analysis. Triangulation techniques were applied to ensure the validity of the data by systematically comparing the results of observations, tests, and documentation.

The data analysis technique in this classroom action research uses quantitative and qualitative descriptive analysis. Quantitative data is obtained

from the results of student learning tests in each cycle, which are then analyzed by calculating the average value, percentage of learning completion, and improvement in learning outcomes from cycle to cycle. Meanwhile, qualitative data from observation and documentation are analyzed descriptively to see student involvement, responses to the Teams Games Tournament (TGT) learning model, and obstacles that arise during the learning process. The results of this analysis are used for reflection and improvement in the next cycle to ensure the effectiveness of the TGT model application in improving the science learning outcomes of grade V students of SDN 1 Wolasi.

3. Findings and Discussion

3.1 Findings

The data shows an increase in student learning activity based on the implementation of actions during two cycles with four meetings. The Team Match Tournament (TGT) learning model can improve learning outcomes.

Initial Activities (Pre Cycle)

The percentage of learning completion of grade V students before the action can be calculated as 61.11% of the students' test results, as shown in the following graph:

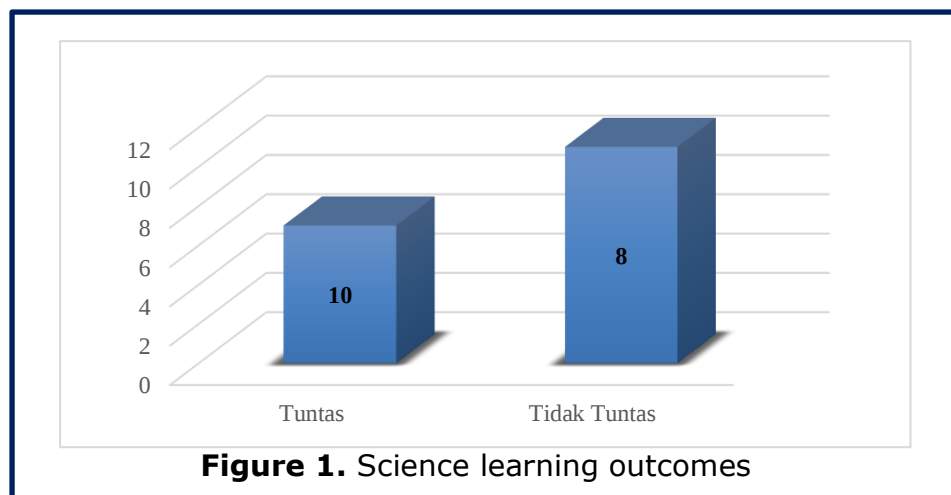
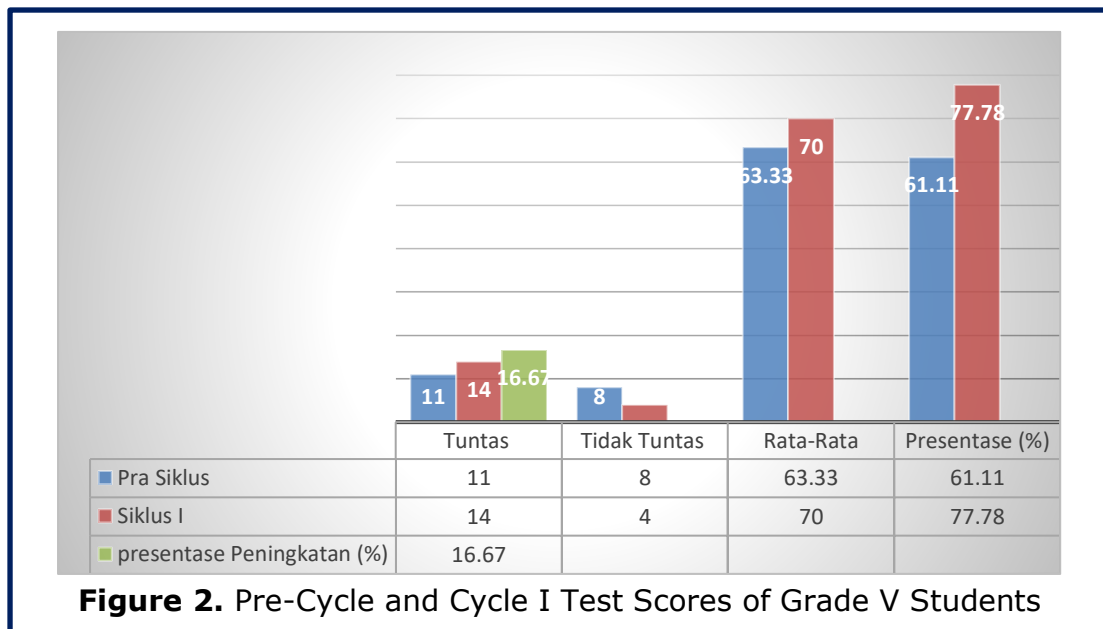


Figure 1. Science learning outcomes

The results of the fifth grade science learning showed that out of 18 students who took the exam, only 10 obtained scores according to the KKM, which was 70 scores, and 8 students did not meet the KKM completion standard score. The factors that caused students to fail to complete the lesson were because the material taught by the teacher was not fully understood by the students, students still faced difficulties in mastering the material, and students did not use methods when studying. In the pre-cycle, learning completion reached 61.11%, with an average score of 68.33%. Previous research by Qorik Melriana showed that the Teams Games Tournament (TGT) learning model can increase student participation. In cycle I, the number of students included in the very good category showed an activity level of 10.5%. However, in cycle II, the number of students included in the very good category increased to 31.6%, the good category to 57.9, the less good category to 10.5%, and the bad category did not exist (Melriana, 2020).

Cycle I

Of the 18 students who participated in cycle I using the TGT (Teams Games Tournament) learning method, 14 of them achieved KKM (scores above 70), and 4 of them did not achieve KKM. In cycle I, the classical learning completion reached 77.78 percent with an average score of 70 percent. Therefore, the percentage of completion of science learning outcomes of grade V students before the action was 77.78 percent. In addition, student learning outcomes from cycle I were better than the previous cycle. pre-cycle to cycle I is: 16.67% increase in student learning outcomes in cycle I can be seen in the following graph:



The results of learning science for grade V after the action of cycle I using the TGT (Teams Games Tournament) learning method showed that 14 out of 18 students who took the test achieved KKM (minimum score of 70), and 4 students did not achieve KKM. In cycle I, learning completeness reached 77.78% with an average score of 70%. The results of learning science from pre-cycle to cycle I with the initial test increased by 16.67% after the application of the TGT (Teams Games Tournament) learning method. The results of Suharningsih's research show that the cooperative learning model of the TGT (Teams Games Tournament) type of grade V students of SD Inpres 250 Kawaka, Bangkala District, Jeneponto Regency can improve their learning outcomes with the TGT (Teams Games Tournament) tournament in science subjects. This is indicated by the learning outcomes of students in cycle I, which are in the moderate category, as well as their learning outcomes in cycle II. This occurs even though teachers carry out more TGT (Teams Games Tournament) type cooperative activities and students are more active in the learning process in each cycle (Suharningsih, 2020).

Cycle II

Thus, the percentage of learning completion of grade V students in cycle II is 83.33%. Student learning outcomes from cycle I to cycle II also increased by 22.22%.

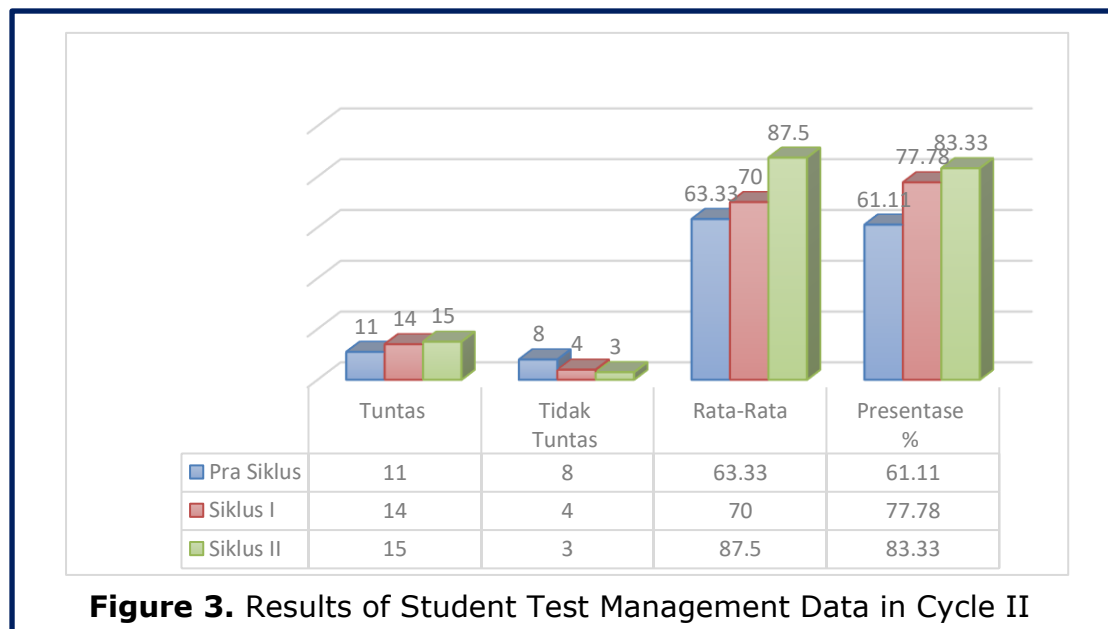


Figure 3. Results of Student Test Management Data in Cycle II

Student learning outcomes increased by 83.33% after cycle II, with an average of 87.5%. There were 15 students who achieved the KKM, and 3 students did not achieve it. This shows that using the Teams Games Tournament (TGT) learning model can improve the learning outcomes of Natural Sciences (IPA) of class V SDN 1 Wolasi. There was an increase in the percentage of completion from cycle I to cycle II of 22.22% and an increase in the percentage of completion from pre-cycle to cycle I to cycle II of 45.43%. Research conducted by Adang Romanda supports the idea that the Teams Games Tournament (TGT) learning model can improve student learning outcomes. The first cycle showed an increase of 60.7%, and the second cycle showed an increase of 85.7% (Romanda, 2017).

3.2 Discussion

Pre-cycle stage, the results of learning Natural Sciences in class show that there are still a number of students who have not reached the minimum completion standard. Although some students are able to obtain grades according to the completion limit, there are still those who have difficulty in understanding the material taught. This indicates that the learning that has been carried out has not been fully effective in helping students master the concepts taught. The difficulties experienced by students in completing learning can be caused by several main factors. One of them is a lack of understanding of the material that has been delivered by the teacher. In addition, some students still experience obstacles in mastering the concepts taught, either due to a lack of effective learning skills or an inability to apply appropriate learning methods. These factors contribute to the low achievement of overall learning outcomes. In general, the level of learning completion at the pre-cycle stage has not achieved optimal results. The average class value shows that students' understanding of the material still needs to be improved so that all students can achieve the standards that have been set. This condition indicates the need for improvements in learning strategies, both in terms of the teaching methods used by teachers and the learning approaches applied by students. With evaluation and improvement, it is hoped that learning outcomes can improve in the next learning stage.

Cycle I showed that the implementation of the Teams Games Tournament (TGT) learning method had a positive impact on student learning outcomes. This method allows students to learn more interactively through teamwork and fun academic competitions. With this approach, most students were able to improve their understanding of the subject matter, so that more achieved the completion standard compared to the previous stage. This increase in learning outcomes shows that team-based learning strategies and games can help students master the concepts taught. Students are more motivated to learn because of the element of healthy competition and a more interesting learning atmosphere. Although there are still some students who have not achieved the completion standard, overall there has been progress compared to the pre-cycle stage. The success of this method can be seen from the increase in the percentage of learning outcome completion compared to the previous stage. The implementation of more varied and fun learning methods has a positive impact on student understanding. With better results, the Teams Games Tournament (TGT) method can be one of the strategies considered to improve learning effectiveness and support more optimal academic achievement.

Cycle II shows that the implementation of the Teams Games Tournament (TGT) method is increasingly effective in improving student learning outcomes. With team-based learning and educational games, students become more active in understanding the Natural Science material. Most students managed to achieve the set completion standards, although there were still some who had not achieved them. However, compared to the previous cycle, there was a significant increase in the achievement of learning outcomes. This success shows that the Teams Games Tournament (TGT) learning model is able to provide a more enjoyable and interactive learning experience. Students are more enthusiastic in participating in the learning process because of the elements of healthy cooperation and competition. With increased student involvement, their understanding of the material becomes better, so that learning outcomes also experience a higher increase compared to the previous cycle. Overall, the increase in the completion of learning outcomes from the initial stage to the second cycle shows the effectiveness of the method applied. Compared to the conditions before the action, there was a significant spike in the level of student success in understanding and mastering the material. This indicates that the right learning strategy, such as the Teams Games Tournament (TGT), can help improve the quality of learning and students' academic achievement more optimally.

4. Conclusion

The learning outcomes of students in the subject of Natural Sciences (IPA) of class V SDN 1 Wolasi can be improved through the application of the TGT (Teams Games Tournament) learning model. The daily test scores resulting from the first pre-cycle test achieved learning completion of 61.11% with the same value as the average of 63.33%. The percentage of students who achieved learning completion in the first cycle reached 77.78 with the same value as the average of 70%. In the second cycle, the percentage of student learning completion reached 83.33%, which is the average value. 87.5%. Test that student learning outcomes have increased from pre-cycle to cycle by 16.67% and growth from the first cycle to the second cycle by 22.22% and a significant increase from the initial cycle to the second cycle by 45.34%.

Bibliography

- Adiputra, D. K., & Heryadi, Y. (2021). Meningkatkan Hasil Belajar Siswa Melalui Model Pembelajaran Kooperatif Tipe Tgt (Teams Games Tournament) Pada Mata Pelajaran Ipa Di Sekolah Dasar. *Jurnal Holistika*, 5(2), 104.-111. <https://doi.org/https://doi.org/10.24853/holistika.5.2.104-111>
- Arizka, N., & Khairuna, K. (2022). The effect of the team games tournament learning model assisted by question card media on student learning outcomes. *BIO-INOVED: Jurnal Biologi-Inovasi Pendidikan*, 4(3), 260-266.
- Fitria, Y., Kenedi, A. K., & Syukur, S. K. (2021). The Effect of Scientific Approach on Elementary School Students' Learning Outcomes in Science Learning. *Jurnal Pendidikan Sekolah Dasar*, 7(1), 78-90. <https://doi.org/http://dx.doi.org/10.30870/jpsd.v7i1.10353>
- Ginting, F. R., Ramadhani, S., & Juniarti, I. (2024). Menyiasati Tantangan Pelaksanaan Penelitian Tindakan Kelas. *Sindoro: CENDIKIA PENDIDIKAN*, 3(8), 10-20. <https://doi.org/https://doi.org/10.9644/sindoro.v3i8.2475>
- Handayani, V., Wardana, L. A., Jannah, F., & Marga, U. P. (2024). Penerapan Model Pembelajaran Kooperatif Tipe TGT (Teams Games Tournament) Untuk Meningkatkan Hasil Belajar Pada Mata Pelajaran PPKN Di Kelas V SDN Pajurangan. 4, 6578-6585. <https://doi.org/https://doi.org/10.31004/innovative.v4i2.10106>
- Hanjayani, D. (2022). The Effectiveness Of The Team Games Tournament Learning Model Based On Virus Material Exploration On Student Learning Outcomes. *Journal of Education Technology and Inovation*, 5(1), 126-135.
- Hendra, Y., & Rahayu, T. (2020). The Effectiveness Of Teams Games Tournament (Tgt) Learning Model And Make A Match Against Collaboration Ability On Science Content At Fifth Grade Elementary School-Meta Analysis. *International Journal of Elementary Education*, 4(4), 510-518. <https://doi.org/https://doi.org/10.23887/ijee.v4i4.30205>
- Irsan, I. (2021). Implemensi Literasi Sains dalam Pembelajaran IPA di Sekolah Dasar. *Jurnal Basicedu*, 5(6), 5631-5639. <https://doi.org/https://doi.org/10.31004/basicedu.v5i6.1682>
- Istikhah, I., Alfiansyah, I., & Umam, N. K. (2024). Penerapan Model Pembelajaran TGT (Team Games Tournament) Untuk Meningkatkan Hasil Belajar Kelas II SD. *Jurnal Pendidikan Dan Ilmu Bahasa*, 2(1), 241-249. <https://doi.org/https://doi.org/10.59059/perspektif.v2i1.1114>
- Kurniawati, D., Taufiq, M., & Kasiyun, S. (2020). Meta-Analysis of Teams Games Tournament Learning Model with Spinning Wheel Media-Based on Local Wisdom Toward Students' Learning Outcomes. *Journal of Education Research and Evaluation*, 4(3), 296-302.
- Kusmiati, E. E., Widartiningsih, W., Fauziati, E., & Muhibbin, M. (2024). Perkembangan Kognitif Jean Piaget dalam Pembelajaran IPA di Sekolah Dasar. *Jurnal Papeda: Jurnal Publikasi Pendidikan Dasar*, 6(1), 32-37. <https://doi.org/https://doi.org/10.36232/jurnalpendidikandasar.v6i1.4471>
- Lastia, I. N. (2021). Penerapan Model Pembelajaran Kooperatif Tipe Teams Games Tournament (TGT) untuk Meningkatkan Hasil Belajar IPS pada Siswa Kelas VI SD. *Journal of Education Action Research*, 5(1), 74-79.

<https://doi.org/https://doi.org/10.23887/jear.v6i2.45825>

- 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), 374-388.
- Munir, A. M., & Darmanto, E. (2022). The influence of Quizizz-assisted Teams Games Tournament on mathematics learning outcomes for grade V elementary school. *ANP Journal of Social Science and Humanities*, 3, 85-89.
- Nadira, N., Rismawati, Purnamasari, & Nurlindayanti, F. (2022). Penerapkan Model Pembelajaran Kooperatif Tipe Teams Games Turnament (TGT) Untuk Meningkatkan Hasil Belajar IPA Pada Siswa Kelas IV SDN 32 Tumampung VI. *Jurnal Pendidikan Dan Konseling*, 5(1), 5092-5098
<https://doi.org/https://doi.org/10.31004/jpdk.v5i1.11818>
- Nurhayati, Egok, A. S., & Aswarliansyah. (2022). Penerapan Model Pembelajaran Kooperatif Tipe TGT pada Pembelajaran IPA Sekolah Dasar. *Jurnal Basicedu*, 6(5), 9118-9126.
<https://doi.org/https://doi.org/10.31004/basicedu.v6i5.3430>
- Oktariantio, M. L., & Handayanto, S. K. (2021, March). Science learning tools with cooperative models of teams games tournament to improve students learning outcomes in primary schools. In *AIP Conference Proceedings* (Vol. 2330, No. 1). AIP Publishing.
- Rahmah, N. (2023). The Effect of Cooperative Learning Team-Games-Tournament Model Toward Students' Science Learning Outcome. *ETDC: Indonesian Journal of Research and Educational Review*, 2(4), 94-101.
- Yusnan, M., & Wulandari, W. (2021). Relationship Of Class Action Management Toward Indonesian Learning Outcomes:(Hubungan Manajemen Tindakan Kelas Terhadap Hasil Belajar Bahasa Indonesia). *Uniqbu Journal of Social Sciences*, 2(1), 54-61.
- Yuwono, P. (2016). KHAZANAH PENDIDIKAN Jurnal Ilmiah Kependidikan, Vol. IX, No. 2 (Maret 2016). *Ilmiah Kependidikan*, IX(2), 1-14. <https://doi.org/DOI:10.30595/jkp.v9i2.1062>