Improving Learning Outcomes and Learning Motivation of Students Through Teams Games Tournament Learning Model (TGT)

Rahayu Febri Riyanti[1*], Suranto[2], Norazmie Yusof[3], Amalia Febriyanti[4]

[1,2] Faculty of Teacher Training and Education, Universitas Muhammadiyah Surakarta, Indonesia
[3] Sultan Hassanal Bolkiah Institute of Education, University Brunei Darussalam, Brunei Darussalam
[4] College of Teacher Education, University of Northern Philippines, Philippines
*Corresponding author's email: rahayufebririyanti24@gmail.com

ABSTRACT

This research investigates the impact of the Problem-Based Learning (PBL) model on enhancing students' critical thinking abilities within civic education in third-grade classes at SDN Srewendari, Malang City. The study aims to assess the influence of the PBL approach on students' proficiency in analyzing facts, articulating reasons and arguments, drawing conclusions, and effectively presenting their findings. Employing a quasi-experimental design with Nonequivalent Groups Pretest-Posttest Control Group methodology, the research compares the average post-test scores of critical thinking skills between the experimental and control groups through a t-test. The study population comprises third-grade students from SDN Srewendari, Malang City, with the sample consisting of experimental class IIIa and control class IIIb. Data collection involves observation utilizing rating scale instruments and assessments comprising test or evaluation questions administered during class sessions. The analysis is conducted descriptively and quantitatively, employing a difference test with a confidence level exceeding 95%. Findings indicate a positive and statistically significant impact of the Problem-Based Learning model on students' critical thinking skills within civic education.

Keywords: Learning Outcomes, Learning Motivation, Teams Games Tournament, Forces

INTRODUCTION

The government always strives to improve the quality and standards of education. One way to enhance the quality and standards of education is by refining the teaching and learning process. To achieve the goals of the teaching and learning process, there must be good cooperation between teachers and students. According to Astawa (2017), resolving issues in the education sector can be achieved when there is a shared vision among students, teachers, school principals, parents, relevant departments, and local governments as stakeholders in the education sector. This shared vision is considered the key to overcoming existing problems. Therefore, all parties in the education sector must fulfill their roles to the best of their abilities.

One of the most crucial elements in achieving national educational goals is the role of teachers. According to Putri et al. (2023), teachers need to continuously develop their professional skills to adapt

to the developments and demands of the profession. This includes the ability to carry out teaching effectively. Without this ability, teachers will not be able to innovate and be creative in carrying out their duties and functions, as stated by Raharjo (2020). Therefore, developing teachers' professional skills is essential in meeting the demands of the times and producing quality education.

Ineffective learning processes and lack of student engagement often result in negative impacts, causing students to lose motivation, pay less attention, and even appear bored during the learning process. Students who lose motivation to participate in learning can lead to an inability to achieve the desired learning goals. According to Rachmadtullah (2015), meaningful learning is expected to provide more meaningful learning experiences for students. In this context, students are actively involved in learning, allowing them to acquire the knowledge provided directly. This meaningful learning approach aims to motivate students and give deeper meaning to the learning process.

Factors significantly impacting the teaching and learning process can be divided into two main categories: factors from within and outside the individual (Hermita et al., 2021). Factors from within the individual include aspects such as IQ, learning motivation, and perseverance. Meanwhile, factors from outside the individual involve teacher support, teaching methods teachers apply, and teaching models' teachers use in implementing the learning process.

In the category of factors within the individual, aspects such as intelligence quotient (IQ), learning motivation, and perseverance play crucial roles. IQ reflects an individual's intellectual ability while learning motivation and perseverance indicate the extent to which an individual is willing and able to face challenges in the learning process. On the other hand, external factors include elements related to the learning environment. Teacher support, implemented teaching methods, and teaching models' teachers use significantly impact the teaching-learning process's effectiveness. Good coordination between internal and external factors is crucial to achieving desired learning goals. Balancing these factors is critical to attaining learning success and creating an optimal learning environment.

In reality, many teachers are not active in developing learning activities in the classroom. This condition can cause students to lose interest in learning. Many teachers tend to adopt lecture-based teaching methods without involving interactions among students. In such learning environments, one-way communication occurs where teachers provide information to students without encouraging interaction. Many teachers are limited to monotonous teaching methods, which can ultimately make students feel bored and less interested. The impact of these less varied teaching methods can lead to negative conclusions among students, such as the perception that certain subjects, such as science or other subjects, are considered difficult (Fitriyani et al., 2021).

Teachers act as communication facilitators in the learning process with the responsibility of creating conditions that encourage students to engage in learning activities, according to Haiyudi & Art-In (2021), which states that learning involves interaction among learners, educators, and learning

resources in an educational learning environment, to build students' attitudes, knowledge, and skills to achieve learning targets (Gumartifa et al., 2023). The learning process often feels monotonous, with teachers acting as content providers and students as receivers. However, a teacher's role is to deliver content and create compelling and engaging learning by choosing appropriate teaching models for students. This aims to make the delivered content enjoyable, ultimately increasing students' participation in the learning process (Firdausy et al., 2019).

In the learning process, teachers have not implemented teaching models that can encourage students to be active and interested in participating in learning activities. Mahardi et al. (2019) stated that teachers need to have the ability to organize exciting and enjoyable learning for students, focusing on student-centered learning. After conducting initial observations in October 2023 on students of class IV C SD Muhammadiyah 2 Kauman Surakarta, researchers found that students' learning outcomes, especially in science subjects, were still low. The minimum completeness criteria (KKTP) for science subjects was 75, but out of the 28 observed students, 18 did not reach the KKTP. This could be due to several factors, including teacher aspects, such as teachers not allowing students to participate in learning actively and not implementing teaching models that could stimulate students to be active and interested in the learning process. Meanwhile, from the students' side, there still appeared to be a lack of active participation in learning activities, and most students had not shown courage and lacked interest in participating in learning.

Considering the issues mentioned earlier, a learning model is needed to create an engaging classroom atmosphere and interest students in learning materials (Saputri et al., 2023). The goal is to increase students' participation in learning, with one of the options for teaching models being cooperative learning, especially the Team Games Tournament (TGT) type.

According to Luo et al. (2020), the Team Games Tournament (TGT) cooperative learning model is described as a relatively easy-to-implement approach that fosters active engagement of all students regardless of their status or differences. TGT involves five main stages that must be followed in the learning process. The first stage is Classroom Presentation, where the teacher delivers the lesson material to all students. Next, students are divided into groups or teams in the second stage. The third stage involves games designed to enhance interaction and cooperation among team members. Subsequently, in the fourth stage, tournaments or competitions are held among teams to assess understanding and mastery of the material. Finally, in the fifth stage, awards are given to successful teams.

Implementing the Team Games Tournament cooperative learning model transforms the learning dynamics from teacher-centered to student-centered. This model evolves into a student-oriented learning form, where active involvement, interaction among students, and collaborative learning become the primary focus. This approach promotes student activity and encourages healthy competition and

recognition, creating a more dynamic and engaging learning environment for all participants (Christidamayani & Kristanto, 2020).

This research is conducted due to awareness of the challenges in the learning process, especially in the context of enhancing learning outcomes and student motivation. The initial observation of fourth-grade students at SD Muhammadiyah 2 Kauman Surakarta revealed that student learning outcomes, particularly in social and natural science (SNS), were still low. This could indicate a lack of student engagement in the learning process and a lack of diversity in teaching methods used by teachers. This research is vital in identifying the need to develop learning models capable of creating an engaging, interactive, and motivating learning atmosphere for students to engage in learning actively. By implementing the Team Games Tournament (TGT) learning model, it is hoped that a dynamic and collaborative learning environment can be created where students receive information and actively participate in the learning process through interaction and healthy competition among teams. The benefits of this research are that it provides alternative learning models that can improve student learning outcomes and motivation and contribute to developing innovative and effective teaching practices. Additionally, this research can provide new insights for teachers and policymakers in enhancing the quality of education by improving the teaching and learning process. Therefore, the researchers are interested in researching "Improving Learning Outcomes and Student Motivation Through the Teams Games Tournament (TGT) Learning Model on the Subject of Social and Natural Science (SNS) Style."

METHOD

This type of research is classroom action research (CAR), conducted collaboratively between researchers and field advisor lecturers (DPL). The study focuses on efforts to improve students' learning outcomes and motivation through the Teams Games Tournament (TGT) cooperative model. The research was conducted at SD Muhammadiyah 2 Kauman Surakarta from October 2023 to December 2023. The research subjects were 28 fourth-grade students of Muhammadiyah 2 Kauman Surakarta Elementary School. Data collection methods involved tests and questionnaires. Tests were used as written instruments to evaluate the impact of the Teams Games Tournament (TGT) Cooperative Learning Model on students' learning outcomes. Tests and questionnaires were conducted before, during, and after learning to assess students' learning motivation. The data obtained were then analyzed using descriptive data analysis.

RESULTS & DISCUSSION

Result

Pre-Cycle

Pre-cycle

The results obtained by IV C SD Muhammadiyah 2 Kauman Surakarta in learning the material of force in social and natural science (SNS) can be seen in Table 1.

Table 1. Learning Results of Cognitive Domain of Pre-cycle Participants.

No	Indicators	Result
1	Average	69,5
2	Students who have achieved LOCC	10
3	Students who have not attained LOCC	18
4	Percentage of Students who have achieved LOCC	35,71%
5	Percentage of Students who have not attained LOCC	64,29%
6	Highest Score	87
7	Lowest Score	33

Table 1 data shows that students' abilities in SOCIAL AND NATURAL SCIENCE (SNS) lessons, especially in the subject of Forces, need improvement. Learning outcomes in the cognitive domain at this pre-cycle stage have not shown satisfactory achievements, with many students not reaching the learning objectives attainment criteria of 75.

Data on students' learning motivation in class IVC of SD Muhammadiyah 2 Kauman Surakarta obtained from the questionnaire can be seen in Table 2.

Table 2. Learning Motivation Pre-cycle Activities

Classification of Learning Motivation				
Score Range	Category	Amount	Percentage	Average Questionnaire Score
X>110	Very High	0	0	77
90<X≤110	High	3	10,71%	
70<X≤90	Moderate	15	53,57%	
50<X≤70	Low	10	35,71%	
X≤50	Very Low	0	0	

The average score from the student's learning motivation questionnaire summary indicates moderate motivation. This result reflects that generally, students' motivation is considered good. Researchers also involved two observers in collecting motivation data to observe the learning process. However, the pre-cycle learning motivation observation scores show less satisfactory results, indicating a low level of motivation, with 10 out of 28 students falling into this category. Therefore, actions need to be taken to improve students' learning motivation.

Description of Learning Results Cycle I

Data on students' learning outcomes for the cognitive domain were obtained from classroom activities in the first meeting of Cycle I.

Table 3. Cognitive Domain Learning Results of Cycle 1 Students

No	Indicators	Result
1	Average	77,93
2	Students who have achieved LOCC	16
3	Students who have not achieved LOCC	12
4	Percentage of Students who have achieved LOCC	57,14%
5	Percentage of Students who have not achieved LOCC	42,86%
6	Highest Score	93
7	Lowest Score	60

The data indicates an increase in students' learning outcomes from the average in the pre-cycle period to Cycle I. However, the expected classical mastery level of 70% has not been achieved, which indicates this research's success.

Description of Learning Motivation in Cycle 1

The learning motivation of fourth-grade students of SD Muhammadiyah 2 Kauman in cycle one can be observed in Table 4.

Table 4. Cognitive Domain Learning Results of Cycle 1 Students

Classification of Learning Motivation				
Score Range	Category	Amount	Percentage	Average Questionnaire Score
X>110	Very High	0	0	92.39
90<X≤110	High	18	64,29%	
70<X≤90	Moderate	10	35,71%	
50<X≤70	Low	1	3,57%	
X≤50	Very Low	0	0	

From the presented Table 4, it can be seen that students' motivation has increased compared to the pre-cycle condition. This indicates that students are more motivated in learning activities compared to the pre-cycle period. Observation data during Cycle I shows that the average scores increased from the high category by 10.71%, moderate by 53.57%, low by 35.71%, to high by 64.28%, moderate by 35.71%, and low by 3.57% compared to the observation results in the pre-cycle. These results depict an improvement in the learning motivation of students in class IVC SD Muhammadiyah 2 Kauman Surakarta in social and natural science (SNS) learning during Cycle I compared to the pre-cycle period.

Description of Learning Cycle II

The learning outcomes data of Cycle II participants are derived from classroom activities conducted in the initial meetings of Cycle I. The following is the data regarding the learning outcomes of participants in the cognitive domain:

Table 5. Learning Outcomes in the Cognitive Domain of Cycle II Participants

No	Indicators	Result
1	Average	84,5
2	Students who have achieved LOCC	23
3	Students who have not achieved LOCC	4
4	Percentage of Students who have achieved LOCC	82,14%
5	Percentage of Students who have not achieved LOCC	14,29%
6	Highest Score	100
7	Lowest Score	73

The data indicates an improvement in students' learning outcomes from the average in Cycle I to Cycle II, where 82.14% of students achieved the Learning Objective Completion Criteria (LOCC). This shows that the research success indicators were completed in Cycle II.

Description of Learning Motivation in Cycle II

Table 6. Learning Motivation Activity in Cycle II

Classification of Learning Motivation				
Score Range	Category	Amount	Percentage	Average Questionnaire Score
X>110	Very High	3	10,71%	100.11
90<X≤110	High	19	67,86%	
70<X≤90	Moderate	6	21,43%	
50<X≤70	Low	0	0	
X≤50	Very Low	0	0	

Based on the presented Table 6, the student's motivation has significantly increased compared to the conditions in Cycle I. This improvement indicates that students are more motivated in learning activities in Cycle II compared to the previous period. Observational data in Cycle I activities show that the average scores have increased significantly compared to the observations in Cycle I.

These results depict an increase in the learning motivation of the fourth-grade students of SD Muhammadiyah 2 Kauman Surakarta in Mathematics learning in Cycle II compared to the previous period. This improvement indicates that the change in teaching methods or approaches in Cycle II has successfully enhanced students' learning motivation. Furthermore, based on the same data, it is evident that students' motivation has also increased compared to the conditions in Cycle I in social and natural science (SNS) learning in class IV C SD Muhammadiyah 2 Kauman Surakarta in Cycle II. This demonstrates that implementing more effective teaching strategies or appropriate interventions has successfully increased learning motivation in both classes.

Inter-cycle Research Results

The research data results from pre-cycle to Cycle II are shown in the diagram below.

Average Result Across Cycles

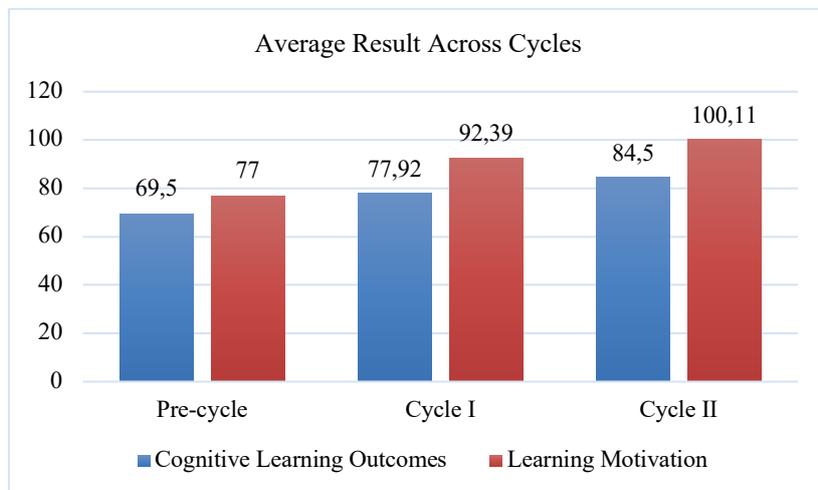|	Cognitive Learning Outcomes	Learning Motivation
Pre-cycle	69,5	77
Cycle I	77,92	92,39
Cycle II	84,5	100,11

Figure 1. Average Learning Results across Cycles

Figure 1. illustrates an improvement at every stage from pre-cycle, Cycle I, to Cycle II, both in cognitive aspects and students' motivation. Information regarding the percentage of achievement of Learning Objective Completion Criteria (LOCC) for each stage can be seen in the attached diagram below.
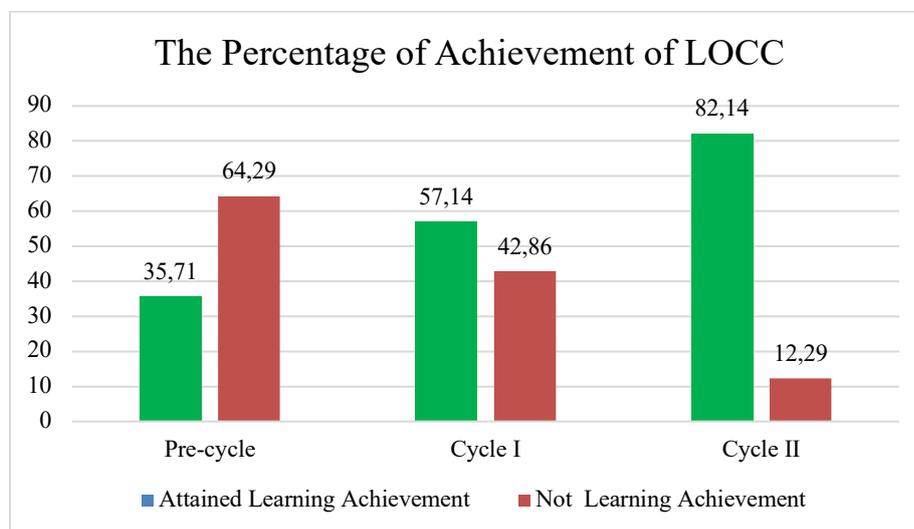
The Percentage of Achievement of LOCC

	Attained Learning Achievement	Not Learning Achievement
Pre-cycle	35,71	64,29
Cycle I	57,14	42,86
Cycle II	82,14	12,29

Figure 2. Percentage of LOCC Achievement

Based on the diagram, there have been changes in the classical percentage of Learning Objective Completion Criteria (LOCC) achievement at each stage of action. In Cycle II, classical KKTP achievement has reached 75%, exceeding the previously established research success indicator of 70% of the total students in class IV C.

Discussion

Based on the research findings, it has been discovered that implementing the Cooperative learning model of the Team Games Tournament can enhance students' motivation in learning social and natural science (SNS). Learning motivation is providing enthusiasm, direction, and persistence of behavior, indicating directed and motivated behavior (Astuti et al., 2020; Sulistyanto, Djumadi, Sumardjoko, et al., 2023). Learning using the TGT model can encourage students to collaborate in small teams and Games Tournaments (academic games). This collaboration can strengthen trust and camaraderie among team members (Sobandi, 2019; Suharti et al., 2024). Collaboration in TGT teams also helps students improve social skills such as communication, teamwork, and leadership. Students feel more motivated to learn because they feel responsible for their team's success. Groups exhibit richer diversity of thought than individuals, where group members motivate each other, and passive members are more willing to express their thoughts in small groups (Abda'u et al., 2020; Lestari & Widayati, 2022). In implementing the TGT model, students are actively involved in learning. They are responsible for ensuring that all team members understand the subject matter. This involvement can enhance motivation because students feel they have an active role in understanding and sharing their knowledge.

Secondly, implementing the Cooperative learning model of the Team Games Tournament can improve students' social and natural science (SNS) learning achievement. The TGT learning model is one of the cooperative methods that places students at the center of activities, in line with student-oriented learning goals (Kamaruddin & Yusoff, 2019; Sulistiawati et al., 2023). TGT encourages students to gain a deeper understanding of the material taught, as this model emphasizes the formation of discussion patterns and critical thinking integrated within the team. By working together in teams, students can help each other understand the subject matter (Fauziyah, 2020; Sulistyanto, Djumadi, Narimo, et al., 2023). Discussion and collaboration among team members allow for a more comprehensive understanding because students can gain diverse perspectives. This model encourages students to use active learning strategies such as discussion, collaboration, and problem-solving, which have proven effective in improving understanding and retention of subject matter. In TGT, there is a game tournament stage where students are faced with challenges that test their application of knowledge (Djumadi et al., 2023). This can strengthen cognitive skills such as problem-solving, analysis, and application of concepts. Learning while playing will certainly increase students' learning motivation, which also positively impacts learning achievement (Fuadi et al., 2023; Rahmantika Hadi, 2016). Motivated students tend to be more focused and strive for better results. The advantage of the TGT model is its ability to make learning more engaging by using media and making learning activities more active through games.

These findings are supported by previous research results stating that the implementation of the Cooperative learning model of Teams Games Tournament (TGT) is highly suitable for use in learning because it can improve students' learning achievement (Gumartifa et al., 2023; Rusnilawati et al., 2023). Implementing the Teams Games Tournament (TGT) learning model involving games has been shown to influence the increase in student participation and motivation in the learning process (Widana et al., 2019). Other studies also indicate that the TGT learning model can enhance students' understanding of the material taught (Hwang & Kim, 2006; Kuo et al., 2012). Referring to the success of previous research regarding the use of the TGT model, this study confirms that the TGT model is efficacious in improving students' motivation and learning outcomes.

CONCLUSION

The research findings underscored a notable improvement in students' learning outcomes and motivation following implementing the Team Games Tournament (TGT) learning model across successive cycles compared to the pre-cycle phase. Notably, there was a substantial increase in both average learning outcomes and motivation scores during Cycle I and II compared to the pre-cycle phase. These results highlight the effectiveness of TGT in enhancing cognitive development and fostering heightened engagement among students in Class IV C of SD Muhammadiyah 2 Kauman Surakarta. Consequently, it is recommended that educators consistently employ the TGT model, provide constructive feedback, and actively involve students in the learning process. Moreover, students are encouraged to participate earnestly, collaborate as a team, and cultivate creativity and critical thinking skills. Future research endeavors could explore refining the TGT model while considering additional variables impacting learning outcomes and motivation. Furthermore, employing multiple classes for comparative analysis would enrich the depth of subsequent investigations, thus yielding more comprehensive insights into pedagogical efficacy.

REFERENCES

Abda'u, N. F., Hanurawan, F., & Sutarno, S. (2020). Pengaruh Model Pembelajaran Kooperatif Tipe Teams Games Tournament Berbantuan Permainan Tradisional terhadap Hasil Belajar Anak SD. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, *5*(1), 1. https://doi.org/10.17977/jptpp.v5i1.13108

Astuti, J., Novita, M., & Ismail, M. S. (2020). Peningkatan Motivasi Belajar Menggunakan Contextual Teaching and Learning di Madrasah Ibtidaiyah Swasta Raudhatul Mujawwidin Tebo. *Journal Educative : Journal of Educational Studies*, *5*(1), 16. https://doi.org/10.30983/educative.v5i1.1630

Christidamayani, A. P., & Kristanto, Y. D. (2020). The Effects of Problem Posing Learning Model on Students' Learning Achievement and Motivation. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, *2*(2), 100–108. https://doi.org/10.23917/ijolae.v2i2.9981

Djumadi, D., Sulistyanto, H., Narimo, S., Prayitno, H. J., Suleha, S., Rosita, E., Fitriyani, N., & Shohenuddin, S. (2023). Penguatan Literasi Budaya Indonesia pada Siswa Sanggar Belajar Sentul Kuala Lumpur dengan Permainan Tradisional. *Buletin KKN Pendidikan*, *5*(2), 180–190. https://doi.org/10.23917/bkkndik.v5i2.23177

Fauziyah, N. (2020). *Penerapan Model Pembelajaran Kooperatif Tipe Team Games Tournament (Tgt) Melalui Media Powerpoint Guna Meningkatkan Hasil Belajar Sejarah Peserta Didik*. *5*(3), 248–253.

Firdausy, A. R., Setyaningsih, N., Ishabu, L. S., & Waluyo, M. (2019). The Contribution of Student Activity and Learning Facilities to Learning Independency and it's Impact on Mathematics Learning Outcomes in Junior High School. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, *1*(2), 29–37. https://doi.org/10.23917/ijolae.v1i2.8104

Fitriyani, Y., Supriatna, N., & Sari, M. Z. (2021). Pengembangan Kreativitas Guru dalam Pembelajaran Kreatif pada Mata Pelajaran IPS di Sekolah Dasar. *Jurnal Kependidikan: Jurnal Hasil Penelitian Dan Kajian Kepustakaan Di Bidang Pendidikan, Pengajaran Dan Pembelajaran*, *7*(1), 97. https://doi.org/10.33394/jk.v7i1.3462

Fuadi, D., Widyasari, C., Prayitno, H. J., Pristi, E. D., Syaadah, H., Muliadi, M., Rohmah, N. D., Putri, A. K., Arista, A. D., Sari, D. W., Komara, O. C. R., & Elhawwa, T. (2023). Pemberdayaan Guru dan Fasilitator dalam Pembelajaran Berdeferensiasi dengan Pendekatan Pendidikan Berpihak pada Anak di Sanggar Belajar Permai Penang Malaysia. *Buletin KKN Pendidikan*, *5*(2), 117–124. https://doi.org/10.23917/bkkndik.v5i2.23049

Gumartifa, A., Syahri, I., Siroj, R. A., Nurrahmi, M., & Yusof, N. (2023). Perception of Teachers Regarding Problem-Based Learning and Traditional Method in the Classroom Learning Innovation Process. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, *5*(2), 151–166. https://doi.org/10.23917/ijolae.v5i2.20714

Haiyudi, H., & Art-In, S. (2021). Challenges, Strategies, and Solutions of Teaching Bahasa Indonesia in Covid-19 Crises: Case in Khon Kaen University. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, *3*(2), 142–152. https://doi.org/10.23917/ijolae.v3i2.12369

Hermita, N., Putra, Z. H., Alim, J. A., Wijaya, T. T., Anggoro, S., & Diniya, D. (2021). Elementary Teachers' Perceptions on Genially Learning Media Using Item Response Theory (IRT). *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, *4*(1), 1–20. https://doi.org/10.23917/ijolae.v4i1.14757

Hwang, S. Y., & Kim, M. J. (2006). A comparison of problem-based learning and lecture-based learning in an adult health nursing course. *Nurse Education Today*, *26*(4), 315–321. https://doi.org/10.1016/j.nedt.2005.11.002

Kamaruddin, S., & Yusoff, N. M. R. N. (2019). The Effectiveness of Cooperative Learning Model Jigsaw and Team Games Tournament (TGT) towards Social Skills. *Creative Education*, *10*(12), 2529–2539. https://doi.org/10.4236/ce.2019.1012180

Kuo, F.-R., Hwang, G.-J., & Lee, C.-C. (2012). A hybrid approach to promoting students' web-based problem-solving competence and learning attitude. *Computers & Education*, *58*(1), 351–364. https://doi.org/10.1016/j.compedu.2011.09.020

Lestari, W., & Widayati, A. (2022). Implementation of Teams Games Tournament to Improve Student's Learning Activity and Learning Outcome: Classroom Action Research. *AL-ISHLAH: Jurnal Pendidikan*, *14*(4), 5587–5598. https://doi.org/10.35445/alishlah.v14i4.1329

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

Mahardi, I. P. Y. S., Murda, I. N., & Astawan, I. G. (2019). MODEL PEMBELAJARAN TEAMS GAMES TOURNAMENT BERBASIS KEARIFAN LOKAL TRIKAYA PARISUDHA TERHADAP PENDIDIKAN KARAKTER GOTONG ROYONG DAN HASIL BELAJAR IPA. *Jurnal Pendidikan Multikultural Indonesia*, *2*(2), 98. https://doi.org/10.23887/jpmu.v2i2.20821

Putri, S. A., Mukhlishina, I., & Sahara, I. F. (2023). PENERAPAN MODEL PROBLEM BASED LEARNING UNTUK MENINGKATKAN KEMAMPUAN BERHITUNG PENJUMLAHAN DANPENGURANGAN PADA SISWA KELAS I SEKOLAH DASAR. *Pendas : Jurnal Ilmiah Pendidikan Dasar*, *8*(3).

Rachmadtullah, R. (2015). Kemampuan Berpikir Kritis Dan Konsep Diri Dengan Hasil Belajar Pendidikan Kewarganegaraan Siswa Kelas V Sekolah Dasar. *Jurnal Pendidikan Dasar*, *6*(2), 287.

https://doi.org/10.21009/jpd.062.10

Raharjo, T. (2020). Efektivitas pendampingan implementasi kurikulum 2013 untuk meningkatkan kemampuan guru melaksanakan pembelajaran. *Indonesian Journal of Educational Development*, *1*, 93–103. https://doi.org/10.5281/zenodo.3760717

Rahmantika Hadi, F. (2016). PENERAPAN PEMBELAJARAN PROBLEM BASED LEARNING (PBL) UNTUK MENINGKATKAN HASIL BELAJAR MATEMATIKA SISWA KELAS IV SEKOLAH DASAR. *Profesi Pendidikan Dasar*, *3*(2), 84–91.

Rusnilawati, R., Hidayat, M. T., Hazima, A. A., Tadzkiroh, U., Kusuma, R. R., Putri, R. S., Nugroho, S., & Sujalwo, S. (2023). Pelatihan Flipped Learning dengan Pendekatan STEM di SD Muhammadiyah 22 Sruni Surakarta. *Buletin KKN Pendidikan*, *4*(2), 108–122. https://doi.org/10.23917/bkkndik.v4i2.21107

Saputri, P. Y., Prayitno, H. J., Kusumaningtyas, D. A., & Syaadah, H. (2023). Menumbuhkembangkan Karakter Cinta Tanah Air melalui Lomba Kemerdekaan pada Siswa Sanggar Bimbingan IKABA IMABA, Malaysia. *Buletin KKN Pendidikan*, *5*(1), 46–55. https://doi.org/10.23917/bkkndik.v5i1.22468

Sobandi, S. (2019). PENERAPAN MODEL PEMBELAJARAN KOOPERATIF TIPE TGT (TEAMS GAMES TOURNAMENTS) DALAM MENINGKATKAN MOTIVASI BELAJAR SISWA. *Jurnal Educatio FKIP UNMA*, *5*(2), 99–106. https://doi.org/10.31949/educatio.v5i2.20

Suharti, P., Listiana, L., Daesusi, R., Sutarni, S., Rahmaniati, R., Zakaria, Y., & Nagy, E. K. (2024). Advancing Collaborative Competence: Instrumentation Development and Integration Strategies for Effective Learning. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, *6*(1), 137–155. https://doi.org/10.23917/ijolae.v6i1.23214

Sulistiawati, S., Kusumah, Y. S., Dahlan, J. A., Juandi, D., & Vos, H. (2023). A Bibliometric Analysis: Trend of Studies in Self-Regulated Learning Over The Past Three Decades. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, *5*(2), 178–197. https://doi.org/10.23917/ijolae.v5i2.21381

Sulistyanto, H., Djumadi, D., Narimo, S., Prayitno, H. J., Anif, S., Tahang, H., Kusuma Budi, A., & Setyaningrum, F. A. (2023). Pemberdayaan Literasi-Numerasi Siswa Sanggar Kulim Kedah dan Ar-Rahmah Penang Malaysia dengan Media Digital. *Buletin KKN Pendidikan*, *5*(1), 1–11. https://doi.org/10.23917/bkkndik.v5i1.22611

Sulistyanto, H., Djumadi, D., Sumardjoko, B., Haq, M. I., Zakaria, G. A. N., Narimo, S., Astuti, D., Adhantoro, M. S., Setyabudi, D. P., Sidiq, Y., & Ishartono, N. (2023). Impact of Adaptive Educational Game Applications on Improving Student Learning: Efforts to Introduce Nusantara Culture in Indonesia. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, *5*(3), 249–261. https://doi.org/10.23917/ijolae.v5i3.23004

Temon Astawa, I. N. (2017). MEMAHAMI PERAN MASYARAKAT DAN PEMERINTAH DALAM KEMAJUAN MUTU PENDIDIKAN DI INDONESIA. *Jurnal Penjaminan Mutu*, *3*(2), 197. https://doi.org/10.25078/jpm.v3i2.200

Widana, I. W., Suarta, I. M., & Citrawan, I. W. (2019). Penerapan Metode Simpang Tegar untuk Meningkatkan Kemampuan Guru dalam Penulisan PTK dan Artikel Ilmiah. *JPM (Jurnal Pemberdayaan Masyarakat)*, *4*(1), 365–375. https://doi.org/10.21067/jpm.v4i1.3016