



**Implementation of Teaching Games for Understanding Model on Students' Kasti Skills
Heuleut I Public Elementary School Majalengka**

Zaki Adib Al Khairi^{1✉}, Encep Sudirjo², Adang Sudrazat³

Physical Education of Elementary Teacher Program, Universitas Pendidikan Indonesia, Bandung,
Indonesia¹²³

Article History

Received February 2025
Accepted February 2025
Published Vol.14 No.(1) 2025

Keywords:

Teaching Games for Understanding (TGFU) Learning Model; Playing Skills; Learning the Game of Kasti

Abstract

This study aims to implement the Teaching Games for Understanding (TGfU) learning model to enhance the kasti playing skills of students at Heuleut I Public Elementary School Majalengka. Teaching Games for Understanding (TGFU) is an instructional model that emphasizes understanding tactics and game strategies rather than solely focusing on the mastery of physical techniques. It is anticipated that this model will encourage students to be more active in the learning process, improve their comprehension of the game, and facilitate comprehensive motor skill development. The study involved 27 fifth-grade students at Heuleut I Public Elementary School Majalengka, including 17 male and 10 female students. This research utilized a Classroom Action Research (CAR) design. Data collection was conducted in two phases: quantitative and qualitative. The success indicator for this study was set at a 90% proficiency rate in students' kasti playing skills. Pre-cycle observations indicated a skill level of 11.2%. In Cycle I, students' skill levels improved to 37.1%; in Cycle II, they reached 70.3%; and in Cycle III, they attained 92.6%. The results from Cycle III demonstrated that students achieved the success criterion of 90% proficiency in kasti playing skills. In conclusion, the findings of this study indicate that the application of the Teaching Games for Understanding (TGfU) learning model in kasti instruction significantly enhances the playing skills of fifth-grade students at Heuleut I Public Elementary School Majalengka.

How to Cite

Khairi, Z. A. A., Sudirjo, E., & Sudrazat, A. (2025). Basic Psychological Needs and Emotions of Finswimming Athletes During the Training Phase. *Journal of Physical Education, Sport, Health and Recreation*, 14 (1), 251-257.

© 2025 Universitas Negeri Semarang

✉ Correspondence address :
E-mail: zakiadibalkhairi@upi.edu

INTRODUCTION

Education is a learning process characterized by meaningful interactions between students and teachers. Learning encompasses activities that optimize the environment and facilitate engagement with learners, resulting in an effective educational experience Taqwim, R. I., Winarno, M. E., & Roesdiyanto, R. (2020). Additionally, Ujud, S., Nur, T. D., Yusuf, Y., Saibi, N., & Ramli, M. R. (2023). define education as all factors that influence the growth, change, and conditions of individuals. These changes reflect the development of students' potential, including their knowledge, skills, and attitudes. In Indonesia, physical education, health, and recreation are integral components of the overall educational framework, playing a crucial role in character development among students Kapti, J., & Winarno, M. E. (2022). Within the context of physical education, games are essential and are perceived positively from children's perspectives. It can be stated that games are closely associated with physical education. According to Mudzakir, D. O. (2020) games serve as a popular form of entertainment enjoyed by individuals of all ages, including both children and adults.

Physical education (PE) learning can be meaningful and enjoyable for students when they engage in games that provide opportunities for participation and active involvement in the learning process. Smith, L., Harvey, S., Savory, L., Fairclough, S., Kozub, S., & Kerr, C. (2015). Student engagement in games can stimulate learners to make quick and accurate decisions during play García-López, L. M., Gutiérrez, D., Sánchez-Mora, D., & Harvey, S. (2019). The role of PJK teachers in this context is to foster an appreciation for play, which contributes to the development of students' physical abilities Wang, L., & Ha, A. S. (2013). Students who gain experience through play are likely to become better decision-makers Arias-Estero, J., & Castejón, F. (2014). The positive aim of these efforts is to enhance students' motivation to participate in more games and to cultivate appreciation for their involvement in physical education Wanita, P. K. F. P. S., & Kirana, C. (2019).

Games and sports are mandatory components of the physical education curriculum that students must participate in Pertiwi, T. S., & Sutiyana, A. (2017). This aligns with the perspective of Riyanto, P. (2017), who argue that play is an essential need for children, including elementary school students, as a significant portion of their time is devoted to playing. One common game

played by children in elementary schools is kasti, which is conducted in teams consisting of 12 players each. The fundamental techniques in kasti include running, throwing, catching, and hitting [9]. Play offers substantial benefits for children's development by enhancing both mental and physical functions. Increased opportunities for play prepare children to engage more effectively in society. Therefore, implementing game-based models in schools should be tailored to the children's conditions and environments [10]

In reality, many elementary school students still face difficulties in mastering kasti playing skills. This condition can be observed from their inability to properly apply basic techniques such as hitting, catching, and running during the game. Moreover, the lack of understanding of game strategies also contributes to their low level of playing skills. The conventional teaching method, which tends to focus only on isolated technical skills, often leads to student boredom and low engagement in the learning process. This approach provides limited opportunities for students to understand the overall context of the game, resulting in suboptimal development of their kasti playing skills.

Therefore, it is necessary to conduct research in order to obtain information, references, and appropriate methods that can serve as solutions to address the problems identified in the field. In conducting this study, there are two relevant international studies and one national study that support this research. A study by García-López, L. M., Gutiérrez, D., Sánchez-Mora, D., & Harvey, S. (2019), entitled "Teachers' Use of Teaching Games for Understanding in Central Spain", revealed the extensive implementation of the Teaching Games for Understanding (TGfU) approach among elementary school physical education teachers in Spain. Additionally, García-López, L. M., Gutiérrez, D., Sánchez-Mora, D., & Harvey, S. (2019), in their study entitled "The Application of the Teaching Games for Understanding in Physical Education: A Systematic Review of the Last Six Years", conducted a comprehensive review of Teaching Games for Understanding (TGfU) research over the past six years. Furthermore, a national study conducted by (Erita, 2017), entitled "The Effect of Learning Models", examined the use of the Teaching Games for Understanding (TGfU) approach in improving futsal playing skills.

In response to previous studies, the research conducted by García-López, L. M., Gutiérrez, D., Sánchez-Mora, D., & Harvey, S. (2019) primarily focused on the utilization of the Teach-

ing Games for Understanding (TGfU) model from the perspective of physical education teachers, without directly examining its benefits for students. Similarly, the study by (Barba-Martín et al., 2020) conducted a systematic review of Teaching Games for Understanding (TGfU) over the past six years, but it did not specifically investigate its application or impact on students' skill development. Furthermore, the study by (Erita, 2017) examined the implementation of TGfU in developing futsal playing skills, rather than in traditional games such as kasti. Therefore, this study provides a new solution by applying the Teaching Games for Understanding (TGfU) model in the context of kasti learning for elementary school students. The focus of this research is to explore the extent to which the Teaching Games for Understanding (TGfU) model can improve students' kasti playing skills. Through this research, it is expected that deeper insights will be gained regarding the effectiveness of the Teaching Games for Understanding (TGfU) model and its contribution to enhancing the quality of physical education at the elementary school level, while also addressing existing challenges in the learning process.

Accordingly, this study is specifically focused on the implementation of the Teaching Games for Understanding (TGfU) model to improve students' kasti playing skills. While previous studies have widely applied the Teaching Games for Understanding (TGfU) model to sports such as football or futsal, research specifically targeting kasti remains very limited, particularly within the Indonesian educational context. This study offers a new perspective by integrating the Teaching Games for Understanding (TGfU) approach into kasti learning, which not only emphasizes the development of students' basic technical skills (hitting, catching, running) but also enhances their understanding of game strategies and decision-making in real game situations. Additionally, this research provides practical insights for physical education teachers on how to create a more engaging, contextual, and student-centered learning environment for traditional games through the Teaching Games for Understanding (TGfU) model.

METHODS

This study represents the application of a scientific approach to the investigation of a specific issue. According to Setyosari, research is a method for obtaining objective, accurate, and accountable data or information Imawati, V., &

Maulana, A. (2021). This research employs a Classroom Action Research (CAR) design, with the aim of enhancing learning outcomes through systematic and reflective actions Utomo, P., Asvio, N., & Prayogi, F. (2024). This approach encourages educators to identify issues within the learning process, experiment with new strategies, and evaluate the results observed in students, thereby ensuring that the focus of the research encompasses not only the final outcomes but also the ongoing learning processes. The study involved 27 fifth-grade students at Heuleut I Public Elementary School Majalengka, including 17 male and 10 female students.

Classroom Action Research (CAR) is a manifestation of behaviors observed in teaching and learning activities, and these behaviors are considered distinct from routine practices, aiming to enhance the quality of the learning process. In this CAR study, improvement activities are conducted continuously through a series of cycles to achieve the established objectives Tomo, P., Asvio, N., & Prayogi, F. (2024). The number of cycles implemented in this research depends on the results of reflective analysis, allowing the researcher and teacher to draw conclusions and make decisions regarding the continuation of subsequent cycles or to conclude the research at a certain cycle if the identified issues have been resolved as expected and in accordance with the predetermined targets.

The target for cycle achievement in this study is set at 90%, as determined by students' proficiency in playing kasti.

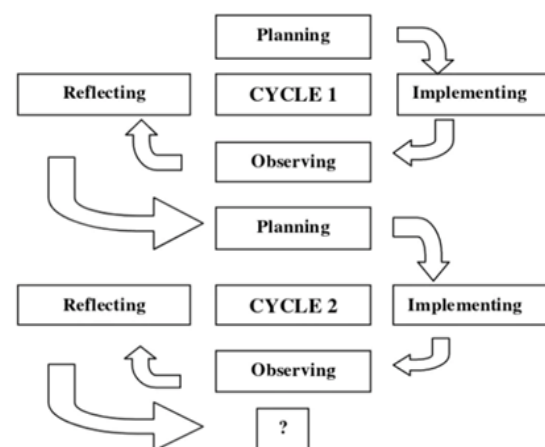


Figure 1. Kemmis & Taggart Classroom Action Research Flow.

RESULTS AND DISCUSSION

In the context of physical education at Heuleut I Public Elementary School Majalengka,

specifically for fifth-grade students, the author analyzed the learning process, particularly in kasti instruction. The results of this analysis indicated that student performance was unsatisfactory, as their skills in kasti did not meet the established learning objectives.

This concept emphasizes that students are at the center of the Teaching Games for Understanding (TGUFU) model. Therefore, researchers in the field of game-based physical education must consider the learning processes experienced by students. Meanwhile, teachers should take into account the interrelationship between behavioral, affective, and cognitive domains when selecting instructional environments. Below is a diagram illustrating the TGUFU instructional model as proposed by Bunker and Thorpe (1982).

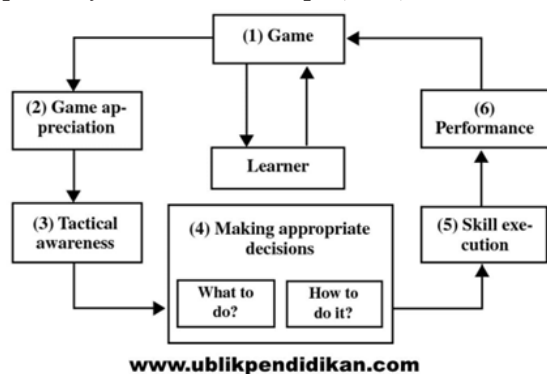


Figure 2. Implementation Procedures of the Teaching Games For Understanding (TGUFU) Model

Teaching Games For Understanding (TGUFU) is an instructional model that focuses on developing students' abilities to actively engage in gameplay as a means to enhance performance in physical activity contexts. Teaching Games For Understanding (TGUFU) aims to stimulate learners' tactical awareness by encouraging them to understand the underlying strategies of a game, enabling them to make quick and informed decisions about what actions to take and how to execute them effectively.

Principles of the Teaching Games For Understanding (TGUFU) Approach :

1. Game

Engaging in sports with official rules often requires a lengthy period of socialization and adaptation. Therefore, it is essential to introduce modified forms of games that are appropriate for students' age and level of experience. As a result, teachers are expected to carefully consider factors such as the playing field, number of players, and equipment used to ensure that children are exposed to various challenges that may arise dur-

ing gameplay. This approach helps create game situations that are better aligned with children's developmental characteristics.

2. Game Appreciation

Understanding the rules of the game to be played is a critical component at this stage, even when the rules are relatively simple. Game rules provide structure and form to the activity, guiding how it is conducted. Moreover, these rules also establish boundaries related to time and space, which are essential for creating an organized and meaningful gameplay experience.

3. Tactical Awareness

Once information and understanding of the game rules have been provided from the outset, it becomes essential to consider the tactical aspects employed during gameplay. The principles of play are applicable across all types of game-based sports. In addition, tactical awareness should serve as the initial foundation for understanding the opponent's weaknesses.

4. Decision Making

Decision-making in a game is a fundamental aspect that must be addressed. Within this play-based approach, a distinction is made between decisions concerning "what to do?" and "how to do it?". This distinction enables both students and teachers to identify and connect gaps in the decision-making process, thereby facilitating a deeper understanding and improvement of gameplay strategies.

5. Skill Execution

Skill execution in this context refers to the actual performance of movements required as demonstrated by the teacher and observed within the student's own context, while also taking into account the individual limitations of the student. Therefore, skill execution should always be viewed within the framework of both the game context and the learner's capabilities.

6. Performance

This stage represents the outcome of observations made during the previous processes, assessed based on individual criteria specific to each student. It is through this assessment that students are classified in terms of performance quality, determined by the accuracy of their responses and the efficiency of their technique.

Before implementing the intervention, the researcher collected pre-cycle data to assess the initial state of students' playing skills. This data aimed to evaluate the proficiency of students prior to the application of the Teaching Games for Understanding (TGUFU) model in kasti instruction for fifth-grade students at Heuleut I Public

Elementary School Majalengka. The pre-cycle data was gathered from a total of 27 students, consisting of 17 male and 10 female participants. The results of this initial data collection are as follows **Table 1**.

Table 1. Initial Data Results of Kasti Playing Skills Assessment

	students complete	students imcomplited
Amount	3	24
Percentage	11,2%	88,8%

The results of the pre-cycle observations obtained from the kasti playing skills assessment indicate that out of a total of 27 students, 3 students met the criteria for mastery, representing 11.2% of the group. Conversely, 24 students did not meet the mastery criteria, accounting for 88.8% of the total.

Based on the collected data and field observations, it was found that many students had not yet mastered the fundamental techniques required for playing kasti. In response to this issue, the researcher implemented the Teaching Games For Understanding (TGFU) model to assess whether there would be any improvement in students' playing skills in kasti following the intervention. Subsequently, the researcher and the observer applied the Teaching Games for Understanding (TGFU) model to facilitate kasti instruction for fifth-grade students at Heuleut I Public Elementary School Majalengka.

By utilizing the Classroom Action Research (CAR) method, the researcher assumes the role of the teacher delivering instruction, while the physical education teacher acts as an observer. The purpose of this study is to examine the changes in students' playing skills in kasti through the application of the Teaching Games for Understanding (TGFU) model for fifth-grade students at Heuleut I Public Elementary School Majalengka.

Table 2. Results of Cycle I Kasti Playing Skills Assessment Data

	students complete	students imcomplited
Amount	10	17
Percentage	37,1%	62,9%

The results of the Cycle 1 assessment of students' kasti playing skills indicate that out of a total of 27 students, 10 students met the mastery criteria, representing 37.1% of the group. Conversely, 17 students did not meet the mastery

criteria, accounting for 62.9% of the total.

Based on the results and observations from Cycle 1 compared to the pre-cycle data, there was an increase in the number of students who successfully achieved the research objectives. In the pre-cycle phase, only 3 students met the mastery criteria, while in Cycle 1, this number rose to 10 students, resulting in an increase of 7 students. Similarly, the number of students who did not meet the criteria decreased from 24 in the pre-cycle to 17 in Cycle 1.

Therefore, the implementation of the Teaching Games for Understanding (TGFU) model in kasti remains necessary in the subsequent cycles, as the average target has not yet been met according to the school's Minimum Completeness Criteria.

Table 3. Results of Cycle II Kasti Playing Skills Assessment Data

	students complete	students imcomplited
Amount	19	8
Percentage	70,3%	29,7%

The results of the Cycle 2 assessment of students' kasti playing skills indicate that out of a total of 27 students, 19 students met the mastery criteria, representing 70.3% of the group. Conversely, 8 students did not meet the mastery criteria, accounting for 29.7% of the total.

From the results and observations conducted in Cycle 2, compared to Cycle 1, it can be concluded that there was an increase in the number of students who achieved mastery in kasti playing skills, rising from 37.1% in Cycle 1 to 70.3% in Cycle 2. Additionally, the percentage of students who did not meet the mastery criteria decreased from 62.9% in Cycle 1 to 29.7% in Cycle 2.

Thus, there has been a further improvement from the first cycle to the second; however, the desired target achievement has not yet been met. Therefore, it remains necessary to continue implementing the Teaching Games for Understanding (TGFU) model in kasti instruction in the subsequent cycles, as the average target has not been reached according to the school's Minimum Completeness Criteria.

Table 4. Results of Cycle III Kasti Playing Skills Assessment Data

	students complete	students imcomplited
Amount	25	2
Percentage	92,6%	7,4%

The results of the Cycle 3 assessment of students' kasti playing skills indicate that out of a total of 27 students, 25 students met the mastery criteria, representing 92.6% of the group. Conversely, 2 students did not meet the mastery criteria, accounting for 7.4% of the total.

Based on the results and observations from Cycle 3, when compared to Cycles 1 and 2, it can be concluded that there was an increase in the number of students who achieved mastery in kasti playing skills. Specifically, the percentage of students meeting the mastery criteria rose from 37.1% in Cycle 1 to 70.3% in Cycle 2, and further increased to 92.6% in Cycle 3. Additionally, the percentage of students who did not meet the mastery criteria decreased from 62.9% in Cycle 1 to 29.7% in Cycle 2, and further declined to 7.4% in Cycle 3.

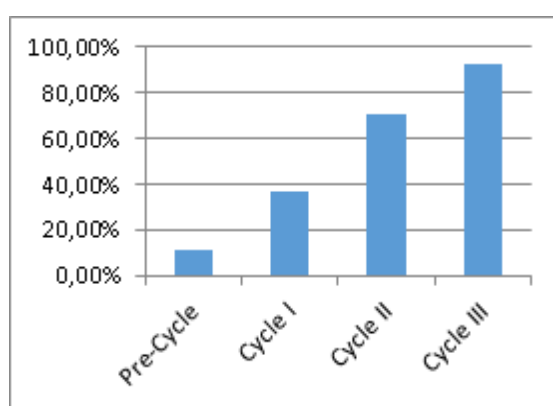


Figure 3. Graph of Kasti Playing Skills Results

There has been an improvement in students' playing skills in kasti instruction, as evidenced by the increasing percentage of students achieving mastery based on the Minimum Completeness Criteria. In the pre-cycle, the percentage of students who achieved mastery was 11.2%. In Cycle I, this increased to 37.1%. In Cycle II, the percentage rose to 70.3%, and in Cycle III, it further increased to 92.6%.

The data obtained from the results of Cycles I, II, and III indicate a positive change or advancement in students' playing skills through the implementation of the Teaching Games for Understanding (TGfU) model in kasti instruction. As a result, the scores of the majority of students at Heuleut I Public Elementary School Majalengka improved in accordance with the objectives of this study, as shown in Figure 2.

According to (Qohhar & Pazriansyah, 2019), the Teaching Games for Understanding (TGfU) model emphasizes the importance of game context and direct experience, allowing

students to learn through active participation. In the Teaching Games for Understanding (TGfU) approach, students are guided to analyze game situations, make strategic decisions, and adapt to dynamic changes during gameplay. This instructional model aligns with the constructivist theory, which posits that students build their knowledge through practical experiences and social interactions. Consequently, this approach enables students to develop both cognitive and motor skills simultaneously. (Hortigüela Alcalá & Hernando Garijo, 2017)

The implementation of Teaching Games for Understanding (TGfU) in physical education learning has also been proven to enhance students' motivation and engagement. By providing students with opportunities to participate in relevant and challenging games, they tend to feel more connected to the learning material. The study conducted by (Qohhar & Pazriansyah, 2019) demonstrated that students who learned through the Teaching Games for Understanding (TGfU) model were better able to apply strategies in real game situations and had a deeper understanding of game rules and objectives. Furthermore, this approach also fosters the development of social skills, such as teamwork and communication, which are essential in a team-based context. Therefore, further exploration of the application of the Teaching Games for Understanding (TGfU) model in the context of sports learning, such as in kasti games, is crucial to gain a deeper understanding of its impact on students' skills and comprehension. Therefore, the research was concluded at Cycle III because the mastery criteria were met, achieving a percentage greater than 90%.

CONCLUSION

The implementation of the Teaching Games for Understanding (TGfU) model has demonstrated a significant improvement in students' skills in playing softball at Heuleut I Public Elementary School Majalengka. Through a structured execution across several cycles, this study revealed an increase in the percentage of students meeting the mastery criteria, from 11.2% in the pre-cycle to 92.6% in the third cycle. These results indicate that the TGfU model is effective in engaging students in the learning process, while also promoting the development of technical skills and strategic thinking in gameplay.

Furthermore, these findings emphasize the importance of applying student-centered teaching methods, such as Teaching Games for

Understanding (TGfU), within the context of physical education. This model not only encourages active participation but also fosters a learning environment that supports skill exploration and mastery. Consequently, educators are encouraged to continue utilizing the Teaching Games for Understanding (TGfU) approach to enhance skill development and learning outcomes in sports, particularly at the elementary school level.

REFERENCES

- D. Hortigüela Alcalá and A. Hernando Garijo, "Teaching Games for Understanding: A Comprehensive Approach to Promote Student's Motivation in Physical Education," *J. Hum. Kinet.*, vol. 59, no. 1, pp. 17–27, 2017, doi: 10.1515/hukin-2017-0144.
- D. O. Mudzakir, "Pengaruh Permainan Olahraga Tradisional Terhadap Motivasi Dalam Pembelajaran Penjas Di Sekolah Dasar," *J. Maenpo-Jurnal Pendidik. Jasm. Kesehat. dan rekreasi*, vol. 10, no. 1, pp. 44–49, 2020.
- E. Alifia, H. N. Muhammad, and T. Hidayat, "Penerapan Model Pembelajaran TGT (Teams Games Tournament) dan TGfU (Teaching Games for Understanding) terhadap Motivasi Belajar pada Materi Keterampilan Kebugaran Jasmani," *EduInovasi J. Basic Educ. Stud.*, vol. 4, no. 1, pp. 745–761, 2023, doi: 10.47467/edui.v4i1.6019.
- J. Arias-Estero and F. Castejón, "Using instruments for tactical assessment in physical education and extra-curricular sports," *Eur. Phys. Educ. Rev.*, vol. 20, no. 4, pp. 525–535, 2014, doi: 10.1177/1356336X14539214.
- J. Kapti and M. E. Winarno, "Hubungan Kebugaran Jasmani dan Motivasi Belajar Terhadap Hasil Belajar Penjas SMP: Literature Review," *Sport Sci. Heal.*, vol. 4, no. 3, pp. 258–267, 2022, doi: 10.17977/um062v4i32022p258-267.
- L. M. García-López, D. Gutiérrez, D. Sánchez-Mora, and S. Harvey, "Teachers' use of teaching games for understanding in Central Spain," *Phys. Educ. Sport Pedagog.*, vol. 24, no. 5, pp. 463–477, 2019, doi: 10.1080/17408989.2019.1628931.
- L. Smith, S. Harvey, L. Savory, S. Fairclough, S. Kozub, and C. Kerr, "Physical activity levels and motivational responses of boys and girls: A comparison of direct instruction and tactical games models of games teaching in physical education," *Eur. Phys. Educ. Rev.*, vol. 21, no. 1, pp. 93–113, 2015, doi: 10.1177/1356336X14555293.
- L. Wang and A. S. Ha, "Three groups of teachers' views, learning experiences, and understandings of teaching games for understanding," *Phys. Educ. Sport Pedagog.*, vol. 18, no. 3, pp. 336–350, 2013, doi: 10.1080/17408989.2012.666789.
- N. E. H. Fauziyah and I. Anugraheni, "Pengaruh Model Pembelajaran TGT (Teams Games Tournament) Ditinjau dari Kemampuan Berpikir Kritis Pada Pembelajaran Tematik di Sekolah Dasar," *J. Basicedu*, vol. 4, no. 4, pp. 850–860, 2020, doi: 10.31004/basicedu.v4i4.459.
- P. Model, P. Terbaru, T. Games, and F. Understanding, "Journal Berkarya," vol. 4, pp. 22–29, 2022.
- P. Pendekatan, T. Dalam, and P. Bola, "JUARA : Jurnal Olahraga," vol. 4, no. 2, 2019.
- P. Riyanto, "Pengaruh Permainan Bola Kasti Terhadap Peningkatan Kemampuan Gerak Umum (General Motor Ability)," *J. Sport Area*, vol. 2, no. 1, p. 53, 2017, doi: 10.25299/sportarea.2017.vol2(1).593.
- P. Studi et al., "Model Pembelajaran Teaching Games For Understanding (Tgfu) Untuk Meningkatkan Kerjasama Pada Pendidikan Jasmani : Study Literature Model Pembelajaran Teaching Games For Understanding (Tgfu) Untuk Meningkatkan Kerjasama Pada Pendidikan Jasmani : Study," 2022.
- P. Utomo, N. Asvio, and F. Prayogi, "Metode Penelitian Tindakan Kelas (PTK): Panduan Praktis untuk Guru dan Mahasiswa di Institusi Pendidikan," *Pubmedia J. Penelit. Tindakan Kelas Indones.*, vol. 1, no. 4, p. 19, 2024, doi: 10.47134/ptk.v1i4.821.
- R. I. Taqwim, M. E. Winarno, and R. Roesdiyanto, "Pelaksanaan Pembelajaran Pendidikan Jasmani, Olahraga, dan Kesehatan," *J. Pendidik. Teor. Penelitian, dan Pengemb.*, vol. 5, no. 3, p. 395, 2020, doi: 10.17977/jptpp.v5i3.13303.
- T. S. Pertiwi, A. Sutisya, and S. Sihombing, "Pelaksanaan Permainan Bola Kasti Dalam Pembelajaran Pendidikan Jasmani Olahraga Dan Kesehatan Di Sd/Min Kota Bengkulu," *Kinestetik*, vol. 1, no. 1, pp. 54–58, 2017, doi: 10.33369/jk.v1i1.3378.
- S. Ujud, T. D. Nur, Y. Yusuf, N. Saibi, and M. R. Ramli, "Penerapan Model Pembelajaran Discovery Learning Untuk Meningkatkan Hasil Belajar Siswa Sma Negeri 10 Kota Ternate Kelas X Pada Materi Pencemaran Lingkungan," *J. Bioedukasi*, vol. 6, no. 2, pp. 337–347, 2023, doi: 10.33387/bioedu.v6i2.7305.
- V. Imawati and A. Maulana, "Minat Belajar Siswa dalam Mengikuti Proses Pembelajaran PJOK," *Patria Educational J.*, vol. 1, no. 1, pp. 87–93, 2021, doi: 10.28926/pej.v1i1.439.
- W. Qohhar and D. Pazriansyah, "Pengaruh Model Pembelajaran Kooperatif Tipe Teaching Games For Understanding (TGfU) Terhadap Peningkatan Hasil Belajar Teknik Dasar Sepakbola," *Phys. Act. J.*, vol. 1, no. 1, p. 27, 2019, doi: 10.20884/1.paju.2019.1.1.1998.