



# Using a Reflective Research Approach on the Implementation of Teaching Games for Understanding in Physical Education: A Scoping Review

Andhega Wijaya<sup>1ABCDE</sup>, Dwi Lorry Juniarisca<sup>1CDE</sup>, Aprilyan Putra Bimantoro<sup>1CDE</sup>,  
Shidqi Hamdi Pratama Putera<sup>1CDE</sup>, La Ode Adhi Virama<sup>2BCD</sup>, Dewangga Yudhistira<sup>1ABCD</sup>

<sup>1</sup>Universitas Negeri Surabaya

<sup>2</sup>Institut Agama Islam Negeri Kendar

Authors' Contribution: A – Study design; B – Data collection; C – Statistical analysis; D – Manuscript Preparation; E – Funds Collection

Corresponding Author: Andhega Wijaya, e-mail: andhegawijaya@unesa.ac.id

Accepted for Publication: May 9, 2025

Published: May 30, 2025

DOI: 10.17309/tmfv.2025.3.30

## Abstract

**Background.** Teaching games for understanding (TGFU) learning is an innovative model to improve motivation, participation, and motor skills. In the implementation, special analyses are needed to determine future opportunities.

**Objectives.** This study aimed to conduct a scoping review of the implementation of TGFU.

**Materials and methods.** This literature review used a scoping method to collect data through Google Scholar, Pubmed, Wiley, and Scopus databases. The data inclusion criteria were original quantitative and mixed articles discussing TGFU, research focusing on the implementation of TGFU, research written in English, and published between 2020 and 2025. Furthermore, data screening identified 20 final articles using quantitative and qualitative methods through Rayyan and Mendeley.

**Results.** According to study's results, the highest number of published articles was 5 (25%) and 4 (20%) in 2018 and 2024, respectively. The results were categorized into four key themes, namely (1) Implementation – primarily focused on improving game understanding and decision-making, (2) Challenges and Obstacles – difficulties in modifying learning, curriculum adjustments, time constraints, and variations in students' engagement, (3) Effectiveness – increased participation, motivation, and motor skill development, and (4) Success Factors – influenced by adequate training, students' participation, curriculum balance, environmental support, evaluation, and the types of modified games used.

**Conclusions.** The findings of this study show that continuous training for teachers and curriculum adjustments were needed to implement TGFU effectively.

**Keywords:** teaching games for understanding (TGFU), physical education, scoping review.

## Introduction

Physical education is important in optimizing physical, character, and social skills. However, sports learning is trapped in conventional methods focusing on individuals without providing a comprehensive understanding of important aspects such as strategy and decision-making (Rokhayati et al., 2016; Yahya, Amry & Sufitrono, 2020). Active participation, motivation, and interest in physical education need to be improved by learning methods containing games. This is achieved by using the teaching

games for understanding (TGFU) learning. The process focuses on contextual understanding in games as part of sports skills learning (Arantes et al., 2025; Lodewyk & Robertson, 2022; Oktavianus et al., 2025). TGFU was first proposed by Bunker & Thorpe, which provides great potential to improve understanding of various aspects of strategy and motivation (Barquero-Ruiz et al., 2024). This includes cognitive skills and tactical decisions in games (Barquero-Ruiz et al., 2024; Lodewyk, 2022).

The implementation of TGFU requires special attention, even though the method is effective. In Indonesia, some schools are more focused on remote areas and facing problems in implementing TGFU learning. This is evident in the shortage of qualified teacher training and the limitations of facilities and infrastructure (Gandasari et al., 2024; Ibra-

© Wijaya, A., Juniarisca, D. L., Bimantoro, A. P., Putera, S. H. P., Virama, L. O. A., & Yudhistira, D., 2025.



him et al., 2021). TGFU offers a holistic method for learning about physical education. Therefore, some teachers do not fully understand the integration with more effective goals. The effect increases active participation and students' interest but there are challenges in the implementation process, leading to the inability to obtain optimal results. Based on the description, a scoping review should be conducted to understand the context and broad scope of TGFU implementation. This differs from a systematic review focusing on evaluating and answering specific questions to determine the effectiveness or effect of a particular theory (Hafidz et al., 2024). Additionally, a scoping review aims to map broader literature and provide an overview of a particular topic (Deehan et al., 2024; Munn et al., 2018). The method is very important in identifying various research relevant to TGFU and mapping the application in multiple contexts (Samdin et al., 2021). This literature review used a scoping method to direct future investigations. For example, research on the effectiveness of TGFU has been relatively conducted, including Samdin et al. and Gustian et al. (Gustian et al., 2024a; Samdin et al., 2021). However, there are still some unanswered questions, such as the effect of TGFU on the level of students' engagement with different educational backgrounds. Based on the result, this research serves as a clearer guideline on the effect of external factors, namely the availability of facilities, on the implementation of TGFU (Pratama et al., 2023; Vernanda, 2023).

A clear map is provided for future investigation focused on implementing TGFU. The increasing number of research provides a strong background for reforming physical education and implementing more effective methods. Therefore, this research aims to explore secondary data focused on the implementation of TGFU in physical education with a scoping review method. The research questions include (1) how is the implementation of TGFU in physical education? (2) what are the challenges and obstacles faced in the implementation of TGFU in physical education? (3) how effective is the implementation of TGFU in increasing participation of students? (4) what are the factors affecting the success of TGFU implementation in the context of physical education?

## Materials and methods

### Research Design

The research type was a scoping review, which investigated the concept of literature systematically to synthesize useful results for further actions (Munn et al., 2018). The guidelines used were the Preferred Reporting Items for Systematic Reviews and Meta-Analysis for Review of Reviews (PRISMA-ScR) (Trandafirescu et al., 2024). This method identified gaps and analyzed evidence on the research topic (Trandafirescu et al., 2024).

### Research Eligibility

Data eligibility is determined using inclusion and exclusion criteria described as follows.

### Inclusion Criteria

- Type of research - Primary articles in the form of quantitative and systematic reviews that discuss the

implementation of TGFU in physical education. The databases used are Google Scholar, Scopus, Pubmed, and Willey.

- Subject and context - Research that focuses on the implementation of TGFU in the context of physical education, analyses conducted at various levels of primary and secondary education, complete downloadable article text.
- Language - The language included in the inclusion criteria is English.
- Year of publication: Articles published in the last 5 years from 2020-2025.
- Research focus - Research discussing the implementation of TGFU in the context of physical education learning.

### Exclusion Criteria

- Type of research - Research irrelevant to the topic discussing the basic theory of TGFU without implementation, opinion articles and conferences that do not present empirical data, and analyses examining other topics in physical education without connecting to TGFU.
- Subject and context - Research that does not focus on physical education for athletes and professional sports, analyses discussing non-education in sports, and article text that cannot be downloaded
- Language: Articles not published in English.
- Year of publication: Articles published more than 5 years.
- Focus of research: Research that discusses theory irrelevant to TGFU, and analyses examining the concept without including application in physical education.

### Search Strategy

This research is presented in the following procedures through a systematic data search strategy:

1. Observational research and document analysis in the form of the latest relevant articles to determine the urgency.
2. Conducting exploration of research questions to focus the discussion.
3. Data search in the form of articles in Google Scholar, Pubmed, Scopus, and Willey databases by applying Boolean words, namely:
  - "Teaching games for understanding" AND "Implementation" AND "physical education". Focusing on tracing articles that discuss TGFU in the context of implementation in physical and physical education.
  - "TGFU" AND "Challenges" AND "Effect" AND "Skills" OR "Understanding" AND "Physical Education". Focusing on finding literature that discusses the effect of TGFU on the skills and understanding of students in physical education.
  - "TGFU" AND "effectiveness" AND "motivation" AND "physical education". Focusing on finding effectiveness in motivation.
4. A total of 144, 3, 39, and 4 data are retrieved from Google Scholar, Pubmed, Scopus, and Willey.

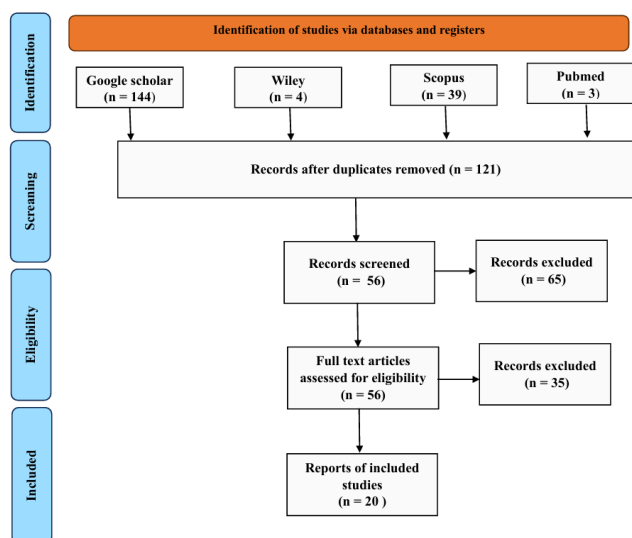


Fig. 1. The research flow diagram based on PRISMA-ScR

5. The data reported were screened to find duplicate and relevant articles. The initial screening obtained 121 data and the subsequent stage was filtered to obtain 56 data.
6. In the final analysis, 20 articles were declared eligible to be presented more clearly with PRISMA-ScR analysis as follows:

### Data Synthesis

Data filtering starts with searching for articles in Scopus, Google Scholar, Willey, and Pubmed databases obtained with files in RIS format. The data is uploaded to the “Rayyan” device to filter duplicates, completeness of abstracts, and relevance of articles. Subsequently, the filtering results

Table 2. Data description based on PRISMA-ScR analysis

No	Reference	Participant	Method	Results
1	(García-González et al., 2020)	14 senior high school students with an average age of 15 years. The sample size was 49.	Experimental pretest-posttest without control	The results reported that the implementation of TGFU learning had a positive effect on motivation of students.
2	(Morales-Belando et al., 2018)	23 males and 18 females. Total sample 41	Pretest-posttest experiment without control	The results showed that after implementing TGFU soccer learning, students experienced an increase in compliance and performance.
3	(Lodewyk & Bracco, 2018)	25 female senior high school students	Survey research	TGFU increased self-confidence, and reduced anxiety from conventional physical education methods.
4	(Wang & Wang, 2018)	118 students from four classes were divided into TGFU and engineering groups.	Factorial experiment	<ul style="list-style-type: none"> <li>• TGFU and engineering groups performed equally well.</li> <li>• TGFU group spent more time in moderate to vigorous activity than the engineering group.</li> <li>• Boys spent more time in moderate to vigorous activity than girls.</li> <li>• There was no significant difference between high and low-skill groups.</li> </ul>

are entered into Mendeley application as final data and synthesized with a structured method to obtain a systematic synthesis (Yudhistira et al., 2023).

### Results

The synthesis of results aims to present data that meets the criteria of this research. The initial filtering stage identifies and removes duplicate articles (n = 121), reducing the dataset to (n = 56). An additional (n = 65) articles are excluded, followed by a second filtering process based on inclusion and exclusion criteria, resulting in the removal of (n = 35). Therefore, the final data was found (n=20) and the summary is presented in Tables 1, 2.

Table 1. Total publications per year that meet the inclusion criteria

Year	Total	Percentage
2018	5	25 %
2019	2	10 %
2020	3	15 %
2021	2	10 %
2022	1	5 %
2023	3	15 %
2024	4	20 %
2025	0	0 %
Total	20	100%

Based on the review analysis, 20 articles were reported as the final data. The overall analysis results explained the implementation of TGFU, the comparison of the methods, and the quantitative method of the original research in elementary and secondary schools (Arias-Estero et al., 2020; Batez et al., 2021; García-González et al., 2020; Ginciene et al., 2023; Waffak, Sukoco, Sugiyanto, et al., 2022; Wang & Wang, 2018).

Table 2 (continued)

No	Reference	Participant	Method	Results
5	(Qohhar, 2018)	80 senior high school students	Experimental nonequivalent group pretest-posttest design	<ul style="list-style-type: none"> <li>• There was a significant effect of Times Game Tournament (TGT) model on basic football skills.</li> <li>• There was a significant effect of TGFU learning model on basic football skills.</li> <li>• There was a significant difference between TGT and TGFU. TGT model was better for improving basic football skills.</li> </ul>
6	(Fani & Sukoco, 2019)	31 senior high school students for a small-scale test. 62 students for a large-scale test.	Development research	<ul style="list-style-type: none"> <li>• The small and large-scale test phases of TGFU learning method were good and very good, respectively.</li> </ul>
7	(Calábria-Lopes, 2019)	18 beginner basketball students	One group pretest-posttest design experiment	<ul style="list-style-type: none"> <li>• There was no correlation between product and process performance for basketball skills.</li> <li>• There were significant differences between the pretest and posttest for the passing process, shooting performance in the game context, and knowledge of skills.</li> <li>• There were no differences between isolated shooting and passing skill assessments.</li> </ul>
8	(Harvey, Gil-Arias, et al., 2020)	12 elementary school students	Pretest posttest design experiment	The research results showed an increase in students' abilities to evaluate game situations and develop tactical reasoning.
9	(Arias-Estero et al., 2020)	12 elementary school students	Quantitative and qualitative mix	<ul style="list-style-type: none"> <li>• There was no difference between the first and second tests. However, there was a significant increase after both periods compared to the first assessment.</li> <li>• Qualitative support implemented by the pedagogical strategies explained the similarities between the first and second periods.</li> </ul>
10	(Nopembri et al., 2022)	32 senior high school students.	Classroom action research	The learning process with TGFU improved HOTS skills.
11	(Batez et al., 2021)	54 junior high school students	Quasi-experiment	The short duration of TGFU learning model in the context of volleyball learning improved skills.
12	(Santoso et al., 2021)	46 elementary school students	Quasi-experiment	The results found that PBL and TGFU had a positive effect on soccer playing skills.
13	(Waffak, Sukoco, & Sugiyanto, 2022)	165 respondents	Quantitative approach to testing content and construct validity	The structured model could increase HOTS, reduce bullying, and affect students' cognitive, affective, and psychomotor skills, hence, the structured model was safe and made students more enthusiastic.
14	(Ginciene et al., 2023)	12 elementary school students	Action research	The results showed changes in pedagogical practices aimed at helping players understand and use actions to support futsal improvement.
15	(Papagiannopoulos et al., 2023)	6 elementary school students	Quantitative and qualitative	The results reported that students had positive views of TGFU learning model and were generally satisfied with the effect on development.
16	(Okasha & Muszali, 2023)	60 elementary school students	Quasi-experimental design	There were statistically significant differences between the two groups in terms of positive behavior, understanding of rules and strategies, and enjoyment of physical education, as measured by the total post-test score.

Table 2 (continued)

No	Reference	Participant	Method	Results
17	(Romadhona et al., 2024)	68 senior high school students	Quasi-experimental design	The results reported that TGFU allowed students to be active in extending overall learning time.
18	(Li & Chano, 2024)	60 students were randomly selected from a total of 1850 students.	<ul style="list-style-type: none"> <li>Traditional teaching methods</li> <li>Experimental classes taught using TGFU learning method.</li> </ul>	<ul style="list-style-type: none"> <li>Remarkable improvements were seen in basketball technical level (skill level, game performance) after TGFU learning.</li> <li>Significant improvements were also reported in physical fitness after TGFU learning.</li> <li>TGFU-based teaching mode improved basketball tactics, including three-point shooting, dribbling drive, and game performance. Therefore, the mode was beneficial to cultivating technical, tactical, and athletic abilities.</li> </ul>
19	(Pizarro et al., 2024)	11 roller skaters, and roller hockey players from the under 10 category from school clubs.	Intra-group, quasi-experimental design	<ul style="list-style-type: none"> <li>An increase was reported in some forms of autonomous motivation and a decrease in controlled motivation, as hypothesized.</li> <li>The results could be explained by considering the focus of TGFU learning on the conceptual, cognitive, and tactical aspects of sports as well as the Ludotechnical Model on the provision of enjoyable experiences.</li> </ul>
20	(Gustian et al., 2024).	24 fourth-grade elementary school students from two classes	Pre-expressive with One Group Pretest Posttest design type	<ul style="list-style-type: none"> <li>At the time of the pretest, the motor mixture of students was in the average and poor categories. Therefore, improving the motor skills was very necessary.</li> <li>The posttest showed that there was an increase in the category of abilities since no student was at below-average levels.</li> </ul>

## Discussion

### *SQ1: How is the implementation of TGFU in physical education?*

The implementation of TGFU learning starts with the use of modified games according to the skill level of students. In Chinese research conducted on learning basketball, the game was modified to teach students tactical play. This allowed for the development of a deeper understanding of rules and strategies in the context of the game. The model enabled students to be actively included in learning about in-depth aspects (Li & Chano, 2024). Furthermore, the implementation of TGFU in physical education with the introduction of games permitted direct participation while learning about the tactical aspects. This provides students with the opportunity to understand and master students' skills separately (Arias-Estero et al., 2020; Fani & Sukoco, 2019; Morales-Belando et al., 2018).

Tactical understanding through decision-making is the core of TGFU implementation in the game. Students are allowed to reflect on decisions made during the game to understand the importance in the larger context. The teaching of basketball with TGFU learning model shows an increase in understanding of game strategy. This leads to greater engagement and more opportunities to apply skills in real situations (Morales-Belando et al., 2018). Furthermore, students are helped in making connections between skills and the application in the context of the game (Morales-Belando et al., 2018).

Previous research reported active participation and motivation of students. In this context, students who follow

basketball learning with TGFU show increased intrinsic motivation and participate more in physical activities (Gustian, Gandasari, et al., 2024; Okasha & Muszali, 2023). In soccer games, students learn to dribble, kick, and pass as well as apply tactical decision-making (Fani & Sukoco, 2019; Wang & Wang, 2018). In the application of TGFU, small games and modified teams reduce students' waiting time, ensuring more physical activity with the potential to increase students' active participation (Romadhona et al., 2024; Wang & Wang, 2018).

TGFU learning is about social and cooperation aspects. In the implementation of basketball games, TGFU increases cooperation between students and strengthens the understanding of the game (Okasha & Muszali R 2023). Therefore, TGFU develops physical, social (Okasha & Muszali, 2023), and motor skills of students (Gustian et al., 2024). TGFU focuses on outcomes and the decision-making process of students through process and outcome evaluation. Evaluation is carried out to measure changes in tactical understanding, skills, active involvement, motivation, and satisfaction (Morales-Belando et al., 2018). Therefore, the implementation of TGFU learning aims to improve game understanding, decision-making, and skills through physical activity.

### *SQ2: What are the challenges and obstacles faced in the implementation of TGFU in physical education?*

Difficulty in implementing learning by teachers is a fundamental problem. This model is quite complex, requiring sufficient skills and time to manage the class differently

from the usual conventional methods. Furthermore, some teachers feel hesitant to apply TGFU learning to students. In line with other research, the model has the potential to improve students' understanding, but there are still teachers experiencing difficulty (Papagiannopoulos et al., 2023). Switching to a model focused more on understanding the game and decision-making may be complex due to the absence of clear implementation guidelines. Therefore, there should be a clear TGFU guideline on the application of the model in the context of physical education to address problems of implementation (Calábria-Lopes et al., 2018). Teachers cannot translate from theory to practice without a clear guideline (Wang & Wang, 2018).

A further challenge is the suitability of the existing curriculum. The previous curriculum focuses on technical teaching before the game, while TGFU learning requires a method of tactical understanding. This causes discomfort for teachers who feel compelled to change teaching methods (Nopembri et al., 2022; Santoso et al., 2024). Additionally, classic problems such as limited teaching time have been obstacles for a long time. TGFU is effective but the method is limited by time and suboptimal learning (Arias-Estero et al., 2020; Harvey, Gil-Arias, et al., 2020). For example, this method requires sufficient time for students to understand and apply the principles of the game (Gustian et al., 2024; Malim, 2023).

Other obstacles include the uneven skills of students and the varying levels of active participation during learning. Heterogeneous groups are a challenge to maintain active participation for students and these are characterized by inequality in the skills of students (Ginciene et al., 2023; Wang & Wang, 2018). TGFU model requires all students to participate in the game, but individuals with lower skills may feel left behind (Lodewyk & Bracco, 2018; Papagiannopoulos et al., 2023). The biggest challenge in implementing TGFU is often the lack of socialization (Romadhona et al., 2024). Therefore, teachers who are not well-trained cannot use the full potential of the method, reducing the success of improving the skills of students (Harvey, Gil-Arias, et al., 2020; Romadhona et al., 2024). This leads to inconsistent implementation, specifically when there is no clear balance between theory and practice (Harvey, Gil-arias, et al., 2020). The inconsistency is from the lack of a common understanding between teachers and students (Calábria-Lopes et al., 2018). Another consequence is the difference in perception about the effectiveness of TGFU. Some teachers are skeptical about the effectiveness due to a lack of in-depth understanding of TGFU concept (Santoso et al., 2024).

TGFU offers a holistic method but faces various challenges such as difficulties in implementing learning modification, curriculum adjustment, time constraints, and differences in active participation. There must be intensive training and socialization, clear guidelines, as well as the preparation of time, and strategies to overcome obstacles.

*SQ3: How effective is the implementation of TGFU in improving students' motivation, participation, and motor skills in physical education?*

TGFU has a positive effect on learning motivation. In TGFU-based classes, students show intrinsic motivation and active participation in learning. The intrinsic motivation category reflects personal drive in the activity (Fani &

Sukoco, 2019; Romadhona et al., 2024). This motivation can be seen from the comfort and interest in learning (Fani & Sukoco, 2019; Qohhar, 2018). In line with other research, students taught with TGFU model show higher levels of internal motivation, and there is a decrease in external regulation (García-González et al., 2020; Li & Chano, 2024).

According to the result, motivation is related to active participation. This is because TGFU learning model promotes active participation and increases academic learning time in the experimental group (Wang & Wang, 2018). In addition, TGFU structure focused on game-based learning allows participation (Romadhona et al., 2024). In modified games, students participate in problem-solving and decision-making to reduce the tendency to wait passively, which often occurs in traditional learning models (Gustian et al., 2024; Papagiannopoulos et al., 2023).

An equally important goal of physical education is the enhancement of motor skills. TGFU learning media can be used to improve the motor skills of elementary and middle school students (Ginciene et al., 2023). These abilities can be improved by integrating skills into the context of the game rather than focusing on the methods (Morales-Belando et al., 2018). Learning using modified games allows students to make better decisions in the context of real games. For example, the model improves volleyball skills in terms of passing and participating in the game (Batez et al., 2021; Gustian et al., 2024).

Based on the description above, the implementation of TGFU in physical education is effective in increasing participation and motivation as well as improving motor skills through a learning process. This model enables students to enjoy learning, and apply skills in real-game scenarios, significantly improving cognitive and physical development.

*SQ4: What are the factors affecting the success of TGFU implementation in the context of physical education?*

The readiness and training of teachers affect the success of TGFU learning implementation. Teachers trained to implement learning tend to develop effective plans, manage classes, and provide constructive feedback. The skills required to modify games play an important role in the effectiveness of TGFU learning model (Li & Chano, 2024; Okasha & Muszali, 2023). Furthermore, tactical understanding is the main factor influencing TGFU implementation. Teaching games with a core understanding of strategies, concepts, and decision-making are more effective than focusing on basic methods. Understanding tactics can develop motor and cognitive skills holistically (Batez et al., 2021). This is related to the active participation of students in learning process. TGFU learning model emphasizes inclusion in learning through modified games. Students explore games to solve tactical problems and make quick decisions in developing a sense of autonomy (Okasha & Muszali, 2023). This can also affect the level of active participation during learning (Gustian et al., 2024).

Based on the result, the suitability of the curriculum objectives and school context is a problem. Schools with a curriculum supporting game-based learning support the implementation of games with various modifications to implement TGFU. Subsequently, adjustments to the needs and abilities of students are very important (Gustian et al., 2024). The implementation of TGFU is successful when school management supports and gives teachers the

freedom to innovate with intense discussion and training (Papagiannopoulos et al., 2023). The experience of teachers who have implemented TGFU is a valuable reference to motivate and help other teachers (Nopembri et al., 2022).

The success of TGFU should be able to modify the game according to the learning objectives. Games modified to suit the skill level of students and have clear tactical objectives are more effective in developing cognitive and motor skills (Batez et al., 2021; Gustian et al., 2024). In addition, the learning model can be adjusted according to class dynamics, students' understanding levels, and desired outcomes through continuous evaluation (Gustian et al., 2024a; Li & Chano, 2024). The implementation of TGFU is affected by a combination of adequate training, participation in learning, curriculum suitability, environmental support, and evaluation, as well as the type of modified game adjustment. These factors create an engaging, effective learning environment to develop skills and tactical understanding in physical education.

## Conclusions

In conclusion, TGFU learning model was effective in physical education and focused on tactical understanding and decision-making. This learning model increased students' engagement, motivation, and motor skills during active learning. However, the implementation faced challenges such as a lack of teacher training and limited facilities in some remote areas, as well as incompatibility with the traditional curriculum. Furthermore, evaluation in TGFU measured the process and participation of students in decision-making. Based on the results, this research recommended ongoing training for teachers and making curriculum adjustments for the effective implementation of TGFU. The success of the model was affected by external factors such as school facilities and education policies.

## Acknowledgment

The authors are grateful to the State University of Surabaya for providing support in the preparation of this research. In addition, the authors are grateful to the team who assisted in writing this manuscript.

## Conflict of interest

All the authors have no conflicts of interest to declare.

## References

- Rokhayati, A., Nur, L., & Gandana, G. (2016). Implementasi Pendekatan Taktis dalam Pembelajaran Pendidikan Jasmani Terhadap Motivasi, Kebugaran Jasmani dan Kemampuan Motorik. *Jurnal Pendidikan Jasmani Dan Olahraga*, 1(September), 57–67.
- Yahya, Amry, A., & Sufitriyono. (2020). Pembelajaran Metode Drill Untuk Meningkatkan Hasil Belajar Passing Bawah Pada Permainan Bolavoli Siswa SMPN 2 Mare Kabupaten Bone. *Jendela Olahraga*, 05(1), 1–9.
- Arantes, D., Gonçalves, C., Rodrigues, M., Correa, J., Milistedt, M., & Costa, G. D. C. T. (2025). *Life Skills and Volleyball Teaching: Comparison Between TGfU and the Direct Instruction Model*. <https://doi.org/10.20944/preprints202501.1724.v1>
- Lodewyk, K. R., & Robertson, S. (2022). Prospective Physical Educators' Preferences for Using Sport Education, Teaching Games for Understanding, and Direct Teaching When Instructing Games. *JTRM in Kinesiology*, 8, 16-24.
- Oktavianus, I., Gustian, U., & Triansyah, A. (2025). Unveiling Current and Future Trends in the Implementation of Teaching Games for Understanding in Primary School: A Bibliometric Analysis. *Physical Education Theory and Methodology*, 25(1), 191-201. <https://doi.org/10.17309/tmfv.2025.1.23>
- Barquero-Ruiz, C., Kirk, D., Barquero-ruiz, C., & Kirk, D. (2024). If 'the medium is the message', what do students learn to do in NLP and GBAs within physical education? in NLP and GBAs within physical education? *Curriculum Studies in Health and Physical Education*. <https://doi.org/10.1080/25742981.2023.2216188>
- Lodewyk, K. R. (2022). Path Associations Between Preservice Physical Educators' Beliefs About Epistemology and Their Value and Self-Efficacy for Sport Education and Teaching Games for Understanding. *International Journal of Physical Activity and Health*, 1(1), 8.
- Gandasari, F. M., Mahendra, A., Education, P., & Indonesia, U. P. (2024). *Edu Sportivo*. *Edu Sportivo*, 54–63.
- Ibrahim, M. F., Kuan, G., & Chin, N.-S. (2021). *The Application of Teaching Games for Understanding Using the Traditional Games (TGfU) for Teaching Physical Education for Special Needs Children in Malaysia* (pp. 1–12).
- Hafidz, A., Wiriawan, O., Nurhasan, Nurkholis, Nugraha, A. D., Purnomo, M., Pratama, R. S., & Yudhistira, D. (2024). Mapping of Petanque Sports Research Trends for the period 2011-2024: A Bibliometric Analysis in the Scopus Database. *Physical Education Theory and Methodology*, 24(5), 808-818. <https://doi.org/10.17309/tmfv.2024.5.17>
- Deehan, J., MacDonald, A., & Morris, C. (2024). A scoping review of interventions in primary science education. *Studies in Science Education*, 60(1), 1-43. <https://doi.org/10.1080/03057267.2022.2154997>
- Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, 1–7.
- Samdin, M. A. B., Shahril, M. I. B., & Salimin, N. B. (2021). Construction of Holistic Assessment Standard (Has) for Handball Game Based on Teaching Games for Understanding (TGFU) Teaching Methods. *International Journal of Academic Research in Progressive Education and Development*, 10(1), Pages 171-186. <https://doi.org/10.6007/IJARPED/v10-i1/8847>
- Gustian, U., Gandasari, F. M., & Mahendra, A. (2024). Effectiveness of Teaching Games for Understanding (TGfU): Using a modified Kasti game to stimulate elementary school students' motor skills. *Edu Sportivo: Indonesian Journal of Physical Education*, 5(1), 54-63. [https://doi.org/10.25299/es:ijope.2024.vol5\(1\).16335](https://doi.org/10.25299/es:ijope.2024.vol5(1).16335)
- Pratama, A., Wardiah, D., & Junaidi, I. A. (2023). The Application of TGFU Learning in Volleyball Upper Passing Learning. *Journal of Social Work and Science Education*, 4(3), 83-89. <https://doi.org/10.52690/jswe.v4i3.516>
- Vernanda, R. (2023). Implementation of the TGfU Learning Model in Football Learning to Improve Student Discipline Behavior. *Journal Of Educational Experts (JEE)*, 6(1), 41-48.

- Trandafirescu, E.-A., Potop, V., Mihai, I., Fleancu, J. L., Cojanu, E., & Trandafirescu, G. (2024). Dribbling emotions and anxiety in women's football: A scoping review. *Pedagogy of Physical Culture and Sports*, 28(6), 479-488. <https://doi.org/10.15561/26649837.2024.0602>
- Yudhistira, D., Kurnianto, H., Candra, A., Ulinnuha, R., & Wicaksono, A. (2023). Tapering in the Sport of Karate: Narrative Review. *Proceedings of the 6th International Seminar on Public Health and Education, ISPHE 2022, 29 June 2022, Semarang, Central Java, Indonesia*. <https://doi.org/10.4108/eai.29-6-2022.2326103>
- García-González, L., Abós, Á., Diloy-Peña, S., Gil-Arias, A., & Sevil-Serrano, J. (2020). Can a Hybrid Sport Education/ Teaching Games for Understanding Volleyball Unit Be More Effective in Less Motivated Students? An Examination into a Set of Motivation-Related Variables. *Sustainability*, 12(15), 6170. <https://doi.org/10.3390/su12156170>
- Morales-Belando, M. T., Calderón, A., & Arias-Estero, J. L. (2018). Improvement in game performance and adherence after an aligned TGfU floorball unit in physical education. *Physical Education and Sport Pedagogy*, 23(6), 657-671.
- Lodewyk, K. R., & Bracco, E. (2018). Differences in Adaptive Outcomes between Previous Physical Education and a Teaching Games for Understanding Games Unit in Adolescent Girls. *Journal of Research*, 10(1), 12-20.
- Wang, M., & Wang, L. (2018). Teaching games for understanding intervention to promote physical activity among secondary school students. *BioMed Research International*, 2018(1), 3737595. <https://doi.org/10.1155/2018/3737595>
- Qohhar, W. (2018). The Comparison between TGT and TGfU Learning Model on Learning Result of Basic Football Technique Skill. *Team Games for Understanding*, 2(229), 151-156.
- Fani, R. A., & Sukoco, P. (2019). Volleyball learning media using method of teaching games for understanding adobe flash-based. *Psychology, Evaluation, and Technology in Educational Research*, 2(1), 34. <https://doi.org/10.33292/petier.v2i1.6>
- Calábria-Lopes, M., Greco, P. J., & Pérez-Morales, J. C. (2019). Teaching Games for Understanding in basketball camp: the impact on process and product performance. *RICYDE. Revista Internacional de Ciencias del Deporte*, 15(56), 209-224.
- Harvey, S., Gil-Arias, A., & Claver, F. (2020). Effects of teaching games for understanding on tactical knowledge development in middle school physical education. *Journal of Physical Education and Sport*, 20(3), 1369-1379.
- Arias-Estero, J. L., Jaquero, P., Martínez-López, A. N., & Morales-Belando, M. T. (2020). Effects of two TGfU lessons period on game performance, knowledge and psychosocial variables in elementary physical education. *International Journal of Environmental Research and Public Health*, 17(10), 3378. <https://doi.org/10.3390/ijerph17103378>
- Nopembri, S., Rismayanthi, C., Putro, K. H., Kristiyanto, A., Margono, A., Karakauki, M., & Pratama, K. W. (2022). Improvement of HOTS Method in Basketball Game Through TGfU Learning. *Physical Education Theory and Methodology*, 22(1), 85-91. <https://doi.org/10.17309/tmfv.2022.1.12>
- Batez, M., Petrušić, T., Bogataj, Š., & Trajković, N. (2021). Effects of teaching program based on teaching games for understanding model on volleyball skills and enjoyment in secondary school students. *Sustainability*, 13(2), 606. <https://doi.org/10.3390/su13020606>
- Santoso, N., Pambudi, A. F., Prayadi, H. Y., Utami, N. S., Yudhistira, D., & Virama, L. O. A. (2024). How do the Learning Models of Teaching Game for Understanding and Problem-Based Learning Influence Fundamental Football Skills in Physical Education? Conducting an Analysis in the Elementary School Context. *Physical Education Theory and Methodology*, 24(5), 793-798. <https://doi.org/10.17309/tmfv.2024.5.15>
- Waffak, M. N., Sukoco, P., Sugiyanto, F., Arifianti, E., Setiawan, J., & Daryono, R. W. (2022). Developing a Basketball Learning Model Using the Teaching Game for Understanding (TGfU) Approach to Improve the Effectiveness of HOTS in Elementary Schools. *Physical Education Theory and Methodology*, 22(3s), S21-S29. <https://doi.org/10.17309/tmfv.2022.3s.03>
- Ginciene, G., Amato, C., Rodrigues de Oliveira, E., Oliveira dos Santos, I., Dell Osbel, E., & Leonardi, T. J. (2023). Understanding the pedagogical practice in futsal teaching and learning process based on the TGfU approach. *International Journal of Sports Science & Coaching*, 18(1), 91-100. <https://doi.org/10.1177/17479541211070790>
- Papagiannopoulos, D., Digelidis, N., & Sympas, I. (2023). PE teachers' perceptions of and experiences with using the TGfU model in teaching team games in elementary school. *Journal of Physical Education and Sport*, 23(2), 482-491. <https://doi.org/10.7752/jpes.2023.02060>
- Okasha, D. M. I. A., & Muszali, R. (2023). The effect of using TGfU approach in teaching basketball during the physical education lesson on positive behavior among primary school students. *Jurnal Sains Sukan & Pendidikan Jasmani*, 12(2), 1-9. <https://doi.org/10.37134/jsspj.vol12.2.1.2023>
- Romadhona, N. S., Kurniawan, R., & Darmawan, A. (2024). Investigating the effect of Teaching Games for Understanding (TGfU) models on motivation and academic learning time in physical education. *Indonesian Journal of Physical Education*, 5(1), 82-93. [https://doi.org/10.25299/es:ijope.2024.vol5\(1\).16176](https://doi.org/10.25299/es:ijope.2024.vol5(1).16176)
- Li, Y., & Chano, J. (2024). The Effects of the Teaching Games for Understanding (TGfU) Mode Adopted in A College Basketball Program. *Journal of Education and Learning*, 13(4), 134. <https://doi.org/10.5539/jel.v13n4p134>
- Pizarro, D., Cosin, J., González-Cutre, D., González-Fernández, F. T., & Práxedes, A. (2024). Influence of ludotechnical model and teaching games for understanding on roller hockey player motivation. *Apunts. Educació Física i Esports*, 157, 31-39.
- García-González, L., Abós, Á., Diloy-Peña, S., Gil-Arias, A., & Sevil-Serrano, J. (2020). Can a hybrid sport education/ teaching games for understanding volleyball unit be more effective in less motivated students? An examination into a set of motivation-related variables. *Sustainability (Switzerland)*, 12(15). <https://doi.org/10.3390/su12156170>
- Calábria-Lopes, M., Greco, P. J., & Pérez-Morales, J. C. (2018). Teaching Games for Understanding in basketball camp: the impact on process and product performance Teaching Games for Understanding en un campamento de baloncesto: impacto en el rendimiento del proceso y del producto. *RICYDE: Revista Internacional de Ciencias Del Deporte*, 15(56), 209-224.
- Santoso, N., Pambudi, A. F., Prayadi, H. Y., Utami, N. S., Yudhistira, D., & Virama, L. O. A. (2024). How do the

Learning Models of Teaching Game for Understanding and Problem-Based Learning Influence Fundamental Football Skills in Physical Education? Conducting an

Analysis in the Elementary School Context. *Physical Education Theory and Methodology*, 24(5), 793-798. <https://doi.org/10.17309/tmfv.2024.5.15>

## Використання рефлексивного дослідницького підходу щодо впровадження методики навчальних ігор для тренування розуміння у фізичному вихованні: Огляд предметного поля

Анджега Віджая<sup>1ABCDE</sup>, Дві Лоррі Джуніариска<sup>1CDE</sup>, Априлян Путра Біманторо<sup>1CDE</sup>, Шидкі Хамді Пратама Путера<sup>1CDE</sup>, Ла Ода Адхі Вірама<sup>2BCD</sup>, Девангга Юдхістіра<sup>1ABCD</sup>

<sup>1</sup>Державний університет Сурабая

<sup>2</sup>Кендарійський державний ісламський інститут

Авторський вклад: А – дизайн дослідження; В – збір даних; С – статаналіз; D – підготовка рукопису; Е – збір коштів

Реферат. Стаття: 14 с., 1 табл., 1 рис., 40 джерел.

**Історія питання.** Навчальні ігри для тренування розуміння (Teaching games for understanding, TGFU) — це інноваційна модель навчання, спрямована на покращення мотивації, залученості до процесу та рухових навичок. На етапі впровадження моделі необхідно провести спеціальні аналітичні дослідження, щоб визначити подальші перспективи.

**Мета дослідження.** Мета цього дослідження полягала у проведенні огляду предметного поля щодо впровадження методики TGFU.

**Матеріали та методи.** У цьому огляді літератури застосовано метод предметного поля для збору даних із використанням наукометричних баз даних Google Scholar, Pubmed, Wiley та Scopus. До критеріїв включення даних були віднесені оригінальні кількісні та змішані статті, в яких розглядалися питання TGFU, дослідження щодо впровадження TGFU, дослідження англійською мовою, опубліковані в період з 2020 по 2025 рік. Крім того, в результаті скринінгу даних було відібрано 20 остаточних статей із використанням кількісних та якісних методів за допомогою програмного забезпечення Rayyan та Mendeley.

**Результати.** Згідно з результатами дослідження встановлено, що найбільша кількість опублікованих статей становила 5 (25%) та 4 (20%) у 2018 та 2024 роках відповідно. Результати були класифіковані за чотирима ключовими тематиками, а саме: (1) Впровадження — передусім зосереджено увагу на поліпшенні розуміння гри та процесу ухвалення рішень, (2) Виклики та перешкоди — труднощі у модифікації навчального процесу, коригування навчальних програм, часові обмеження та варіації залучення учнів, (3) Ефективність — підвищена залученість, мотивація та розвиток рухових навичок, і (4) Фактори успіху — визначаються належною підготовкою, залученістю учнів, збалансованістю навчальних програм, сприятливістю зовнішнього середовища, оцінюванням, а також типами використовуваних модифікованих ігор.

**Висновки.** Результати цього дослідження показують, що для ефективного впровадження методики TGFU необхідно забезпечити організацію безперервного навчання для викладачів та скоригувати навчальні програми.

**Ключові слова:** навчальні ігри для тренування розуміння (TGFU), фізичне виховання, огляд предметного поля.

### Information about the authors:

**Wijaya, Andhega:** andhegawijaya@unesa.ac.id; <https://orcid.org/0000-0002-2828-9833>; Faculty of Sport Science and Health, Universitas Negeri Surabaya, Jl. Lidah Wetan, Lidah Wetan, Kec. Lakarsantri, Kota SBY, Jawa Timur 60213, Indonesia.

**Juniarisca, Dwi Lorry:** dwijuniarisca@unesa.ac.id; <https://orcid.org/0000-0002-5481-518X>; Department Physical Education, Health and Recreation, Universitas Negeri Surabaya, Jl. Lidah Wetan, Lidah Wetan, Kec. Lakarsantri, Kota SBY, Jawa Timur 60213, Indonesia.

**Bimantoro, Aprilyan Putra:** aprilyanbimantoro@unesa.ac.id; <https://orcid.org/0009-0009-7966-4523>; Faculty of Sport Science and Health, Universitas Negeri Surabaya, Jl. Lidah Wetan, Lidah Wetan, Kec. Lakarsantri, Kota SBY, Jawa Timur 60213, Indonesia.

**Putera, Shidqi Hamdi Pratama:** shidqiputera@unesa.ac.id; <https://orcid.org/0000-0001-6811-3130>; Faculty of Sport Science and Health, Universitas Negeri Surabaya, Jl. Lidah Wetan, Lidah Wetan, Kec. Lakarsantri, Kota SBY, Jawa Timur 60213, Indonesia.

**Virama, La Ode Adhi:** laodeadhivirama@iainkendari.ac.id; <https://orcid.org/0000-0002-5081-1026>; Faculty of Education and Teacher Training, Institut Agama Islam Negeri Kendari, Jl. Sultan Qaimuddin No.17, Baruga, Kec. Baruga, Kota Kendari, Sulawesi Tenggara 93870, Indonesia

**Yudhistira, Dewangga:** dewanggayudhistira@unesa.ac.id; <https://orcid.org/0000-0002-4194-1283>; Faculty of Sport Science and Health, Universitas Negeri Surabaya, Jl. Lidah Wetan, Lidah Wetan, Kec. Lakarsantri, Kota SBY, Jawa Timur 60213, Indonesia.

**Cite this article as:** Wijaya, A., Juniarisca, D. L., Bimantoro, A. P., Putera, S. H. P., Virama, L. O. A., & Yudhistira, D. (2025). Using a Reflective Research Approach on the Implementation of Teaching Games for Understanding in Physical Education: A Scoping Review. *Physical Education Theory and Methodology*, 25(3), 725-733. <https://doi.org/10.17309/tmfv.2025.3.30>

Received: 25.03.2025. Accepted: 09.05.2025. Published: 30.05.2025

This work is licensed under a Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0>)