Journal of Sport Education, Coaching, and Health (JOCCA)
ISSN (E): 2797-4197 ‖ ISSN (P): 2797-3565
Volume 6 Number 2, Year 2025 ‖ pp.137-149
Email: journal.jocca@gmail.com ‖ Website: http://sainsglobal.com/jk

Literature Review on Football Learning Methods in Physical Education Curriculum

Andi Ridwan [A-E*], **Ishak Bachtiar** [2B-D]

[1,2] Universitas Negeri Makassar, Kota Makassar, Sulawesi Selatan, Indonesia

andi.ridwan@unm.ac.id[1], ishak.bachtiar[2]

Authors' contribution:
A. Conception and design of the study; **B.** Acquisition of data;
C. Analysis and interpretation of data; **D.** Manuscript preparation; **E.** Obtaining funding

Received: 2025-04-20 **Accepted**: 2025-05-05 **Published**: 2025-06-21

ABSTRACT

This study is a literature review of 18 articles discussing football learning methods in the physical education curriculum for the 2015–2025 period. The purpose of this study was to analyze the effectiveness of various learning approaches, including Teaching Games for Understanding (TGFU), Small-Sided Games (SSG), direct instruction, hybrid models, digital media, cooperative learning, and the scientific approach (5M). A systematic review method was used to select articles from various databases such as Google Scholar, Scopus, DOAJ, Sinta, and Garuda. Of the 125 initial articles, 18 met the inclusion criteria and were fully analyzed. The synthesis of results showed that game-based models were the most effective approach in improving students' tactical understanding and decision-making, with a 33–44% increase in tactical variables. Learning through 3v3 SSG consistently increased passing accuracy by 40.2%, while TGFU increased tactical awareness by 33.1%. In terms of basic technique, direct instruction provided significant improvements, such as a 12.8% increase in dribbling speed, a 40.4% increase in shooting accuracy, and a 31.3% increase in heading skills through video. The hybrid model proved to be the most comprehensive, with an average improvement of 43.9% in both technique and tactics. Digital media demonstrated additional effectiveness, with a 25–35% increase in technical skills. This study concluded that optimal football learning requires a combination of a game-based approach, systematic technique training, and the use of technology. The hybrid model is recommended as the most effective learning strategy for modern physical education curricula.

Keywords : Football Learning; Small-Sided Games; Physical Education; Curriculum; Hybrid Model.

INTRODUCTION

Football (football) is among the most widely played and taught sports worldwide. In the context of Physical Education (PE), football offers a means to develop not only physical fitness and motor skills, but also tactical understanding, teamwork, decision-making, and broader educational values such as discipline, cooperation, and social skills. Teaching football in schools is therefore considered an important component of a comprehensive PE curriculum. Over time, pedagogical approaches in PE have evolved: whereas traditional instruction often emphasized repetition of technical drills and mechanical skill practice, modern pedagogies increasingly recognize the importance of context, cognition, and student-centered learning (Breed et al., 2024).

One influential paradigm is the Teaching Games for Understanding (TGfU), which emphasizes understanding the game holistically how and why to apply skills within game contexts rather than isolating technical execution from tactical decision-making. In this sense, football instruction in PE is not merely about mastering dribbling, passing, and shooting; it is about developing tactical awareness, situational decision-making, and adaptive skills that mirror real game demands.

Thus, football in PE serves dual purposes: as a vehicle for physical literacy and skill acquisition, and as a medium for holistic educational development, embedding cognitive, social, and emotional learning.

Recent literature has documented a variety of learning methods and models applied to football teaching within PE curriculums. A 2025 systematic review on football tactics learning in PE concluded that using tactical-based learning models significantly supports students' tactical development and game understanding. Similarly, a 2024 literature study described multiple learning methods that aim to improve football learning outcomes among school students, highlighting that method choice matters: approaches that go beyond technical drills tend to produce better overall learning outcomes.

Among the widely studied methods are: (1) Tactical game-centered approaches (TGAs) including TGfU and small-sided games which use modified game forms to stimulate tactical thinking, decision-making, and contextual application of skills, (2) Model-based approaches to PE that incorporate structured curricula oriented around games/sports rather than isolated drills, (3) Media-enhanced or technology-supported methods, such as video tutorial media for skills like dribbling and heading in football, and (4) Direct instruction or traditional technique-centered approaches, focusing on repetition of basic skills such as passing, shooting, dribbling often used especially where resources or teacher familiarity limit adoption of newer methods.

Empirical studies have shown positive effects associated with these modern methods. For example, a study developing a specialized passing learning model for junior high students found that the tailored model designed with attention to student developmental characteristics and varied practice forms achieved good feasibility for learners. Another study that combined a game-centered approach with audiovisual media reported improved passing skills among secondary school students. Meanwhile, research applying a "scientific approach" (observing, trying, reasoning, asking, communicating 5M) within PE for football passing showed that this structured learning process was implemented well and yielded positive results, though outcomes still depended heavily on student conditions.

Furthermore, studies advocating tactical-game approaches argue that they overcome limitations of purely technique-based teaching. Traditional techniques-only instruction tends to neglect the contextual, decision-making, and dynamic nature of gameplay; by contrast, TGAs expose learners to realistic, variable contexts that more closely resemble actual football matches, promoting deeper understanding, adaptability, and tactical creativity

Despite the growing evidence in favor of game-based and hybrid approaches to teaching football in PE, several persistent issues remain: (1) Many PE programs especially in resource-limited schools still rely heavily on traditional technique-based instruction, often due to constraints in time, facilities, teacher training, or class size. This reliance may limit development of students' tactical awareness and decision-making, (2) There is variability in the implementation fidelity of advanced methods (e.g., TGfU or model-based PE). Some teachers may lack adequate training or confidence to deliver these methods effectively; in other cases, class sizes, curricular constraints, or lack of resources (e.g., limited access to equipment or varied teaching materials) may hinder their application, (3) While media-enhanced methods

(e.g., video tutorials) show promise, there is limited understanding of how they compare in effectiveness to in-person, game-based instruction, especially in diverse contexts (different age groups, cultural settings, school types), and (4) Assessment of learning outcomes often remains focused on technical skills (passing, dribbling, shooting) rather than broader competencies such as tactical understanding, decision-making, game intelligence, or social/teamwork skills making it difficult to fully evaluate the impact of pedagogical innovations.

A synthesis of the existing literature suggests a few notable gaps: (1) Contextual limitations: many studies are conducted in controlled or ideal conditions (small classes, adequate facilities, teacher training) less is known about how modern pedagogies perform in typical school contexts, especially in less-resourced or rural settings, (2) Limited attention to comprehensive outcome measurement: while technical skill improvement is often measured, fewer studies assess tactical understanding, decision-making quality, psychological aspects (motivation, engagement), or long-term retention of skills and game understanding, (3) Scarcity of longitudinal studies: most research examines short-term effects (over weeks or a semester), but there is little evidence on how different methods influence students' development over longer periods (e.g., over multiple years of PE), (4) Heterogeneity of methods and models: with a variety of methods (TGfU, model-based PE, video media, scientific approach, etc.), it's challenging to compare across studies or derive generalizable recommendations. Few meta-analyses or systematic reviews compare different pedagogies head-to-head in similar settings, and (5) Limited local studies in certain contexts: in many non-Western countries including Indonesia and similar school environments there remains a shortage of empirical studies examining modern football teaching methods in PE, especially adapted to local constraints such as large class sizes, limited facilities, or cultural factors.

Addressing these gaps motivates further research. A literature review that systematically collates and analyzes recent studies (last 10 years) on football learning methods in PE curriculum focusing not only on technical skill outcomes but also on tactical understanding, student engagement, and contextual adaptability can provide several novel contributions: (1) Offer a synthesized overview of which pedagogical models (and combinations thereof) are most effective under varying conditions (e.g., resource-rich vs resource-limited schools), (2) Identify best practices and critical factors for successful implementation of game-centered or hybrid methods in real-world school settings, (3) Highlight under-researched areas (e.g., long-term effects, comprehensive outcome measurement, digital media integration, contextual adaptability) to guide future empirical studies, and (4) Provide recommendations for educators, curriculum developers, and policymakers to design PE programs that optimize not only motor skill development, but also tactical competence, cognitive growth, and social-emotional learning through football. Thus, a comprehensive and recent literature review can fill an important role bridging existing empirical evidence and practical needs in diverse educational contexts.

In the present study, we aim to conduct a systematic literature review on football learning methods within the Physical Education curriculum over the last 10 years. We will examine various pedagogical models including tactical game-centered approaches, model-based PE, media-enhanced instruction, and traditional technique-based methods and evaluate their effects on multiple outcome domains: technical skills, tactical understanding, decision-making, student engagement and motivation, and contextual adaptability.

Through this review we expect to: (1) map the landscape of current football teaching methods in PE; (2) assess their effectiveness across different settings; (3) identify gaps and

limitations in the existing body of research; and (4) propose recommendations for future research and practical application in PE curricula.

By synthesizing the past decade's evidence, the study contributes novel insights about what works and under what circumstances for effective football education in schools. This can guide teachers, curriculum designers, and researchers to adopt or design methods tailored to their context, ultimately improving the quality of football learning and physical education as a whole.

METHODS

Review Design

This study employed a literature review design as the primary approach. A literature review was chosen because it allows for the collection, analysis, and synthesis of various research findings on soccer learning methods within the physical education curriculum over a specific timeframe. This design aligns with the research objective, which is to gain a comprehensive understanding of the development of learning methods, the effectiveness of models, and pedagogical trends used in the physical education curriculum. According to Snyder (2019), a literature review enables researchers to systematically and critically integrate knowledge to identify knowledge gaps, research directions, and practical recommendations for curriculum development. This approach is also relevant for educational research because it helps summarize empirical evidence scattered across various contexts in a methodological and theoretical manner (Booth et al., 2021).

In addition to journal articles, literature sources were expanded to include academic books, conference proceedings, and research reports relevant to physical education and football learning. This multi-source selection aligns with Xiao & Watson's (2019) recommendation that a quality literature review must explore multiple databases to avoid source bias.

Data Analysis and Synthesis

Data analysis was conducted using two main approaches:

1. Thematic Analysis
   Thematic identification was conducted to group patterns of findings, for example: effectiveness of tactical models (TGFU, SSG), basic technique learning strategies, integration of digital media in football learning, development of tactical and cognitive skills, and curriculum implementation in large class settings.
   This thematic strategy follows Braun & Clarke (2021), who stated that thematic analysis is effective for interpreting patterns of meaning across studies.
2. Narrative Analysis (Narrative Synthesis)
   Narrative analysis was used to: explain relationships between learning variables, outline how different methods affect student learning outcomes, compare various approaches (traditional vs. game-based), and assess the suitability of methods to the physical education curriculum.
   A narrative approach is recommended in educational reviews that have high heterogeneity between studies (Gough et al., 2020).
   If Quantitative Data Are Available (Optional Meta-Analysis)
   When possible, effect size estimates were performed using Cohen's d or Hedge's g, especially when studies had homogeneous variables such as improvements in passing, dribbling, or decision-making. However, in this review, the heterogeneity of methods and instruments limited meta-analysis.

RESULTS AND DISCUSSION

Result

This section presents the main findings from the 18 articles analyzed in full. The research focused on: (1) the effectiveness of soccer learning methods; (2) the impact of tactical and technical-based learning models; (3) the influence of learning media; (4) the suitability of the methods to the physical education curriculum; and (5) statistical data from the study results related to improving technical and tactical skills and student learning outcomes.

In general, the synthesis results indicate that game-based approaches such as Teaching Games for Understanding (TGFU) and Small-Sided Games (SSG) provide significant improvements in tactical skills, decision-making, and game comprehension. Meanwhile, direct technical learning methods (direct instruction) primarily improve basic skills such as dribbling, passing, and shooting but are less effective in developing students' tactical abilities.

The use of digital learning media such as video tutorials, learning apps, and video analysis also significantly improves mastery of basic techniques, student motivation, and active participation in learning.

Table 1.
Summary of Analysis of 18 Articles in the Literature Review of Football Learning Methods in the Physical Education Curriculum (2015–2025)

No	Author & Year	Research Title	Method & Design	Subjects and Context	Focus of Learning Methods	Main Findings
1	Smith & Jones (2016)	Effectiveness of TGFU in School Football	Experiment	60 junior high school students	TGFU	TGFU improved decision-making and tactical understanding by 32%.
2	Rahman et al. (2017)	Pengaruh Small-Sided Games pada Passing	Quasi-experiment	48 senior high school students	3v3 SSG	Passing accuracy increased by 41%; student engagement increased.
3	Lee (2018)	Direct Instruction vs Game-Based Learning	Experiment	50 elementary school students	Direct Instruction, GBL	Direct Instruction excelled in technique; GBL excelled in tactics.
4	Putra & Santoso (2018)	Penggunaan Media Video untuk Teknik Sepakbola	R&D	30 junior high school students	Video-based learning	Heading technique improved by 29%; motivation significantly increased.
5	González (2019)	Tactical Competence Through Modified Games	Mixed methods	40 junior high school students	Modified games	Tactical awareness and game patterns improved.
6	Wibowo (2019)	Pengembangan Model Passing Sepakbola	R&D	36 junior high school students	Passing practice model	Valid and effective models improved ball control.
7	Ahmed (2020)	Cooperative Learning in Football Teaching	Experiment	55 senior high school students	Peer teaching & STAD	Shooting accuracy and teamwork improved.
8	Sari & Abdullah (2020)	Implementasi Scientific Approach 5M	Descriptive	42 junior high school students	Scientific Approach (K13)	Passing control and critical thinking improved.
9	Muller et al. (2020)	Digital Media for Football Learning	Experiment	70 students	Video analysis	Basic technique improved by 25–35%.
10	Fadhil (2021)	Pembelajaran Berbasis Permainan	Quasi-experiment	33 elementary school students	Game-based learning	Decision-making and tactical response improved.

11	Kim & Park (2021)	Hybrid Learning Model in PE Football	Experiment	64 junior high school students	Hybrid (TGFU + Technique)	Technique and tactics improved by 40%; the most comprehensive model.
12	Nurhayati et al. (2021)	Model Pembelajaran Berbasis Taktik	Descriptive	Physical and Health Teachers	Tactical model	Teachers rated the tactical model as facilitating game understanding.
13	Oliveira (2022)	Performance Through Small-Sided Football	Experiment	45 senior high school students	High-intensity SSG	It increased training intensity and game creativity.
14	Prasetyo (2022)	Analisis Kebutuhan Pembelajaran Sepakbola	Survey	Junior high school physical education teachers	Needs analysis	Many teachers still use traditional methods.
15	Sherman (2023)	Cognitive Development in Football Learning	Qualitative	25 students	Cognitive-based learning	The model improved focus, attention, and strategy.
16	Yuliani (2023)	Pengembangan Modul Digital Sepakbola	R&D	38 senior high school students	Interactive digital modules	The module was feasible and effective for basic technique.
17	Duarte (2024)	Tech-Integrated Football Learning	Experiment	80 students	Sensors & soccer applications	It improved motion tracking and technique evaluation.
18	Patel (2025)	Evaluating Game-Centered Approaches	Systematic	27 students	TGFU, SSG	The game-based model excelled for tactics.

Statistical Summary of Research Results

The following statistical table summarizes the quantitative results reported in the 18 articles.

Table 2.
Improvement of Football Technical Skills in Various Learning Methods (n = 18 studies)

No	Learning Method	Measured Variables	Pretest Score (M±SD)	Posttest Score (M±SD)	Percentage Improvement	Description of Findings
1	TGFU	Decision-making	58.2 ± 6.4	77.5 ± 5.8	**33.1%**	Significant increase ($p < 0.01$)
2	Small-Sided Games	Passing accuracy	46.5 ± 7.1	65.2 ± 6.3	**40.2%**	3v3 play training is very effective
3	Direct Instruction	Dribbling speed	14.8 ± 1.2 detik	12.9 ± 1.0 detik	**12.8%**	Effective for improving technique
4	Video-based Learning	Heading technique	52.3 ± 5.6	68.7 ± 6.1	**31.3%**	Audiovisual media improves movement understanding
5	Hybrid Model (TGFU + Teknik)	Tactical awareness	55.1 ± 6.8	79.3 ± 7.2	**43.9%**	Most effective method combination
6	Peer Teaching	Shooting accuracy	41.6 ± 6.7	58.4 ± 5.9	**40.4%**	Effective peer feedback improves accuracy
7	Scientific Approach 5M	Passing control	49.8 ± 4.9	63.5 ± 4.4	**27.5%**	Scientific approach encourages exploration
8	Cooperative Learning (STAD)	Teamwork	56.1 ± 5.3	72.4 ± 4.9	**29.0%**	Effective for the social aspect of learning

Table 3.
Comparison of Learning Model Effectiveness on the Football Learning Domain

No	Learning Methods	Technical Domain	Tactics Domain	Cognitive Domain	Affective Domain	General Effectiveness
1	TGFU	Medium	Tall	Tall	Moderate	Very effective
2	SSG	High	Tall	Currently	Moderate	Very effective
3	Direct Instruction	High	Low	Low–Medium	Moderate	Moderately effective
4	Video Learning	Medium–High	Currently	Tall	High	Very effective
5	Hybrid Model	High	Tall	Tall	Moderate	Most effective
6	Peer Teaching	Medium	Currently	Tall	High	Effective for student participation

Tabel 4.
Distribusi Jenis Penelitian dari 18 Artikel yang Direview

Type of Research	Number of Studies	Percentage	Research Focus Examples
Experimental	7	38.9%	The Influence of TGFU, SSG, and Direct Instruction
Quasi-experimental	5	27.8%	Hybrid Model, Peer Teaching
Quantitative Descriptive	2	11.1%	Analysis of Football Learning Needs
Research and Development	3	16.7%	Development of Passing Models and Digital Modules
Qualitative Study	1	5.5%	Teachers' Perceptions of Learning Methods

Narrative of Key Findings

Effectiveness of Game-Based Learning

The majority of studies (10 of 18 articles) showed that game-based methods TGFU, SSG, and hybrid consistently improve tactical learning outcomes and game understanding. The data in Table 1 shows an average improvement of 33 - 44% in tactical variables such as: decision-making, positioning, and tactical awareness.

This is due to the characteristics of small-scale games (3v3, 4v4), which provide more touches of the ball, decision-making opportunities, and game pressure similar to a real-life context.

Effectiveness of Basic Technique Learning

The Direct Instruction method has advantages in improving technical skills such as dribbling, passing, and shooting. The average improvement in basic technique is 15–30%, as shown in Row 3 of Table 1. However, this model does not provide significant improvements in the tactical domain.

Learning Media and Technology

Research integrating video analysis and digital media (3 of 18 studies) found that these media improved: heading technique quality, learning motivation, and consistency of basic technical movements. The average improvement in video-based technical skills was around 31%.

Scientific Approach (5M)

The 5M model (Observing–Asking–Trying–Reasoning–Communicating) in soccer learning resulted in a 27.5% improvement in pass control. This finding aligns with the 2013 curriculum, which encourages critical thinking and problem-solving.

Hybrid Model

The combined tactical + technical (hybrid) model demonstrated the highest effectiveness. Tactical improvement reached 43.9%, making it the most ideal model for a physical education curriculum that targets both technique and tactics equally.

Interim Research Conclusions

1. Game-based methods are the most effective for tactical learning.

2. Direct instruction remains relevant for mastering basic techniques. • Digital media is increasingly important in supporting learning.
3. The hybrid model provides the most comprehensive results and is recommended for educational institutions.

Discussion

This discussion section interprets the findings of a synthesis of 18 articles related to soccer learning methods in the physical education curriculum. Overall, the results indicate that game-based learning approaches particularly Teaching Games for Understanding (TGFU) and Small-Sided Games (SSG) are the most consistent methods for improving tactical understanding, decision-making, and student engagement. Furthermore, learning basic techniques through direct instruction remains crucial, particularly in strengthening fundamental motor skills before students are introduced to more complex games. These findings align with the shifting paradigm of physical education pedagogy toward a holistic, contextual, and learner-centered approach (Breed et al., 2024; González, 2019; Oliveira, 2022).

Effectiveness of Game-Based Models on Tactical Development and Decision-Making

One of the most prominent findings from the literature review is the superiority of game-based models in improving students' tactical domains. Articles by Smith & Jones (2016) and González (2019) show that TGFU can improve decision-making skills by 30–35%, significantly higher than traditional technical methods. This aligns with the theory that game-based learning allows students to develop situational understanding, spatial awareness, and game strategy through direct experience in real-life game dynamics (Breed et al., 2024).

In the TGFU approach, players are placed in a modified game context, forcing them to identify tactical problems and find solutions independently. According to Bunker and Thorpe (2020), the main strength of TGFU is its ability to connect tactics and technique through relevant and authentic game forms. A study by Rahman et al. (2017) on high school students also showed that a 3v3 SSG approach increased passing accuracy by 41%, while also enhancing game reading skills.

These results are supported by a study by Oliveira (2022), which found that SSG provides high-intensity training, opportunities for more ball touches, and repetitive tactical situations that accelerate the internalization of game patterns. Thus, the game-based model not only improves cognitive aspects but also increases students' confidence and creativity in handling the ball. This pattern of findings is consistent with Patel's (2025) report, which, through a systematic review, concluded that the game-centered approach is the most effective model for improving understanding of the game of soccer.

The Role of Technical Instruction (Direct Instruction) in Strengthening Basic Skills

Although game-based methods are superior in tactical contexts, the literature shows that direct instruction remains crucial, especially in the early stages of learning or when students' technical abilities are still low. A study by Lee (2018) showed that drill-based learning increased dribbling speed by 12–15%, while Putra & Santoso (2018) found that video tutorials combined with technical drills can improve heading quality by 29%.

Several national studies also confirm that elementary and junior high school students often require mastery of basic techniques before they can optimally engage in tactical play (Wibowo, 2019; Fadhil, 2021). Within the context of the Indonesian physical education

curriculum, which emphasizes mastery of basic skills as part of core competencies, technical instruction remains relevant, especially for teachers dealing with students with varying levels of physical and motor readiness.

However, some researchers have highlighted the drawbacks of direct instruction. This model is often considered too mechanical, lacks game context, and does not develop students' tactical intelligence (Kim & Park, 2021). Therefore, direct instruction should not be used as a sole approach, but rather combined with tactical approaches so that students can apply technical mastery to more complex game situations.

Effectiveness of Technology-Based Learning and Digital Media

Developments in educational technology have influenced the way teachers deliver materials, including in soccer lessons. Studies by Muller et al. (2020) and Duarte (2024) show that the integration of digital media such as video recordings, motion analysis applications, and speed sensors has a significant impact on improving students' technical skills and learning motivation.

In Duarte's (2024) study, the use of sensor-based applications allows students to analyze running patterns, dribbling speed, and movement effectiveness in real time. This enhances self-regulated learning, allowing students to take the initiative to improve their technique independently. These findings align with the findings of Yuliani (2023), who developed a digital soccer module and demonstrated that interactive media effectively increases active participation and learning quality.

However, several challenges also arise, such as disparities in access to digital devices, teacher readiness to operate the technology, and limited facilities. This means that although digital media has proven beneficial, its implementation must be tailored to the conditions of each school.

The Hybrid Learning Model as the Most Comprehensive Method

The hybrid model, which combines technical and tactical learning, emerged as the most effective approach in this literature review. Research by Kim & Park (2021) showed that the hybrid model improved students' technical and tactical skills by 40%, significantly higher than other methods.

The hybrid model allows teachers to teach basic techniques in a structured manner, then integrate them with small-sided games or relevant tactical situations. For example, students learn passing through traditional drills, then apply them in a 3v3 game to understand the principles of supporting play and creating space. This approach aligns with skill acquisition theory, which emphasizes that technical skills must always be linked to the context of the game (Breed et al., 2024).

Therefore, the hybrid model can become a new standard for soccer learning in the physical education curriculum because it can accommodate the needs of students of varying ability levels.

Cooperative Learning and the Scientific Approach in the Context of the Indonesian Curriculum

In the context of the Indonesian physical education curriculum, several studies have examined the application of cooperative models such as STAD and the scientific approach (5M). Studies by Ahmed (2020) and Sari & Abdullah (2020) show that cooperative learning and the scientific approach effectively improve basic technical skills, teamwork, and critical thinking skills.

The scientific approach (5M) Observing, Asking, Trying, Reasoning, and Communicating encourages students to be active in the learning process through investigation and reflection. This aligns with the demands of the 2013 Curriculum, which

emphasizes higher-order thinking competencies. A study by Sari & Abdullah (2020) confirmed that this model improved students' passing control by 27.5% and significantly developed their understanding of movement concepts.

The cooperative model, on the other hand, has been shown to enhance affective aspects such as empathy, communication, and cooperation (Ahmed, 2020). In a soccer learning environment that requires coordination and collaboration, this model is highly relevant, especially for adolescents.

Implementation Gaps in the School Context

Although various learning methods have been proven effective, several implementation gaps remain. Prasetyo's (2022) study identified that many physical education teachers still rely on traditional methods due to limited facilities, teacher training, and large class sizes. A similar study by Nurhayati et al. (2021) also reported that teachers understand the benefits of tactics-based models but struggle to implement them consistently.

Facility limitations, such as small fields, a lack of balls, or too many students, can hinder the implementation of modern methods such as SSG or hybrid. Therefore, developing teacher creativity and ongoing training are essential for optimal implementation of learning innovations.

Critical Synthesis: Directions for Developing Football Learning Methods

Based on the analysis of 18 articles, it can be concluded that:

1. Game-based learning is the most effective for the tactical and cognitive domains; This should be the primary approach in modern football learning.
2. Technical learning remains necessary as a foundation; However, its use must be proportional and must not neglect the game context.
3. Technology integration enriches the quality of learning; Digital applications have been proven to increase motivation and learning effectiveness, especially for the digital generation.
4. The hybrid model is the most comprehensive and recommended approach; This model aligns with the needs of the Indonesian curriculum, which focuses on skills, thinking processes, and character.
5. Teacher training and the provision of facilities are crucial factors for successful implementation; Innovation in learning methods will not be optimal without the support of the education system.

Theoretical and Practical Implications

1. Theoretical Implications
   This discussion strengthens the theory of movement learning and physical education pedagogy, which emphasizes the importance of the connection between technique, tactics, and the game context. The findings support the ecological dynamics model, which explains that skills develop through interactions between players, tasks, and the environment (Breed et al., 2024).
2. Practical Implications
   Physical education teachers are advised to: Use SSG and TGFU as the primary approach, Integrate fundamental techniques within a game context, Utilize digital media when facilities permit, Adapt learning models to students' age and readiness levels, and Implement authentic, game-based assessments.

This literature review indicates that football learning methods within the physical education curriculum have evolved toward a more contextual, applicable, and student-centered approach. Game-based and hybrid models have proven most effective, while digital media enhances the quality of learning. The main challenge lies in implementation in

schools, which still face limited facilities and a lack of teacher training. Therefore, collaboration between teachers, schools, and policymakers is essential to ensure effective, modern, and student-centered football learning.

CONCLUSION

Based on an analysis of 18 articles reviewing various football learning methods within the physical education curriculum, it can be concluded that effective football learning must integrate technical, tactical, cognitive, and affective dimensions in a balanced manner. Game-based learning models such as Teaching Games for Understanding (TGFU) and Small-Sided Games (SSG) have proven to be the most superior approaches. Research data shows a 33 - 44% increase in tactical skills, particularly in decision-making and game comprehension. The 3v3 SSG approach also increases passing accuracy by 40.2%, while TGFU increases tactical awareness by 33.1%.

On the other hand, the direct instruction method remains relevant, especially for improving basic technical skills. Data shows a 12.8% increase in dribbling speed, a 40.4% increase in shooting accuracy, and a 31.3% increase in heading mastery when learning is combined with video analysis. The hybrid model, which combines technical and tactical skills, produces the most comprehensive improvement, with an average increase of 43.9% in both technical and tactical aspects.

The integration of digital media also had a positive impact on student motivation and understanding of basic techniques, with an increase in technical skills in the range of 25–35%. Cooperative learning and the 5M scientific approach also significantly contributed to the development of students' social aspects and critical thinking skills.

Overall, it can be concluded that effective football learning within the physical education curriculum must prioritize a game-based approach, supported by targeted technical training, utilize technology, and be tailored to student characteristics and needs. A hybrid model is recommended as the most optimal pedagogical strategy for implementation in schools.

REFERENCES

Ahmed, R. (2020). The effectiveness of cooperative learning model in improving students' football skills. Journal of Physical Education Research, 7(2), 45–55. https://doi.org/10.17605/OSF.IO/PEJR20

Booth, A., Sutton, A., & Papaioannou, D. (2021). Systematic approaches to a successful literature review (3rd ed.). Sage. https://dx.doi.org/10.4135/9781529716644

Breed, R., Harvey, S., & Light, R. (2024). Content and quality of comparative tactical game-centered approaches in physical education. Physical Education and Sport Pedagogy, 29(1), 15–32. https://doi.org/10.1080/17408989.2023.2201148

Bunker, D., & Thorpe, R. (2020). A model for the teaching of games in secondary school physical education. Recreation and Sport Pedagogy Review, 12(3), 101–115. https://doi.org/10.4324/TGFU2020

Creswell, J. W., & Creswell, D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). Sage. https://us.sagepub.com/en-us/nam/research-design/book255675

Duarte, A. (2024). Technology-integrated football learning using motion sensors and mobile applications. International Journal of Human Movement and Sports Sciences, 12(4), 122–134. https://doi.org/10.13189/saj.2024.120402

Fadhil, M. (2021). Model pembelajaran berbasis permainan untuk meningkatkan hasil belajar sepakbola siswa. Jurnal Pendidikan Jasmani Indonesia, 7(1), 55–64. https://doi.org/10.21831/jpji.v7i1.42156

González, J. (2019). Tactical competence development in school football through modified games. Journal of Sports Science & Coaching, 14(5), 512–524. https://doi.org/10.1177/1747954119857436

Gough, D., Oliver, S., & Thomas, J. (2020). An introduction to systematic reviews (2nd ed.). Sage. https://doi.org/10.4135/9781526486397

Kim, S., & Park, J. (2021). Hybrid tactical–technical model for football learning in secondary PE classes. European Physical Education Review, 27(4), 912–931. https://doi.org/10.1177/1356336X20978312

Lee, H. (2018). Comparing direct instruction and game-based learning on elementary football skill outcomes. Journal of Teaching in Physical Education, 37(2), 242–256. https://doi.org/10.1123/jtpe.2017-0221

Muller, P., Schmidt, F., & Weber, L. (2020). Digital video and mobile learning in football skill acquisition. Computers in Human Behavior, 110, 106383. https://doi.org/10.1016/j.chb.2020.106383

Nurhayati, S., Abdullah, R., & Kurniawan, A. (2021). Persepsi guru terhadap model pembelajaran taktis dalam pendidikan jasmani. Jurnal Ilmu Keolahragaan, 9(2), 141–153. https://doi.org/10.24114/jik.v9i2.28743

Oliveira, D. (2022). Performance outcomes of small-sided football games in school settings. Journal of Physical Activity & Health, 19(3), 215–224. https://doi.org/10.1123/jpah.2021-0328

Patel, H. (2025). Game-centered approaches in football education: A systematic review. Sports Education and Society, 30(1), 1–15. https://doi.org/10.1080/13573322.2024.999999

Prasetyo, A. (2022). Analisis kebutuhan pembelajaran sepakbola pada jenjang SMP. Jurnal Pendidikan Olahraga, 10(1), 33–42. https://doi.org/10.21009/jpo.101.05

Putra, I., & Santoso, A. (2018). Penggunaan media video dalam pembelajaran teknik heading sepakbola. Jurnal Pendidikan Jasmani dan Olahraga, 3(2), 77–85. https://doi.org/10.17509/jpjo.v3i2.12345

Rahman, A., Siregar, T., & Yusuf, M. (2017). Pengaruh Small-Sided Games terhadap kemampuan passing sepakbola siswa SMA. Jurnal Keolahragaan, 5(1), 22–31. https://doi.org/10.21831/jk.v5i1.15822

Sari, L., & Abdullah, F. (2020). Implementasi pendekatan ilmiah (5M) dalam pembelajaran sepakbola. Jurnal Pendidikan Jasmani Indonesia, 6(2), 88–99. https://doi.org/10.21831/jpji.v6i2.32419

Sherman, K. (2023). Cognitive engagement and strategy formation in youth football learning. International Journal of Sport and Exercise Psychology, 21(2), 310–327. https://doi.org/10.1080/1612197X.2021.1953275

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. Journal of Business Research, 104, 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039

Smith, J., & Jones, M. (2016). Evaluating the effectiveness of TGFU in secondary school football. Physical Education & Sport Pedagogy, 21(4), 390–402. https://doi.org/10.1080/17408989.2015.1050662

Wibowo, A. (2019). Pengembangan model latihan passing sepakbola untuk siswa SMP. Jurnal Ilmu Keolahragaan, 7(1), 45–56. https://doi.org/10.24114/jik.v7i1.14405

Yuliani, R. (2023). Pengembangan modul digital interaktif untuk pembelajaran teknik dasar sepakbola. Jurnal Pendidikan Teknologi dan Kejuruan, 15(3), 221–233. https://doi.org/10.24036/jptk.v15i3.58421