



Learning Models to Improve Basic Movement in Elementary School Physical Education Learning: Literature Review

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Abstract: Fundamental movement skills are an essential foundation for the motor development of elementary school students; however, students' basic movement learning outcomes still need improvement through the implementation of appropriate learning models. This study aimed to identify learning models used to improve elementary school students' basic movement learning outcomes, analyze their effectiveness, and examine research trends in this area. This study employed a systematic literature review by searching articles indexed in the Google Scholar database published between 2016 and 2026. The processes of identification, screening, and article selection were conducted systematically based on predetermined inclusion and exclusion criteria. Out of 500 identified articles, 21 articles met the criteria and were included in the analysis. The findings revealed that game-based learning models, traditional games, tactical approaches, interactive multimedia, and motor activity-based learning effectively improved elementary school students' fundamental movement skills. In addition, these learning models were found to enhance students' learning motivation and participation in physical education classes. Therefore, active, innovative, and movement-based learning models can serve as effective alternatives for improving elementary school students' basic movement learning outcomes.

Keywords: Fundamental Movement Skills; Physical Education; Learning Models; Motor Activities; Elementary School Students

Introduction

Physical education plays an important role in supporting students' physical, motor, cognitive, affective, and social development. One of the primary objectives of physical education at the elementary school level is to develop fundamental movement skills, including locomotor, non-locomotor, and manipulative movements. These skills serve as the foundation for acquiring more complex sport-specific skills and promoting lifelong participation in physical activity. Furthermore, fundamental movement skills contribute significantly to children's physical fitness and overall health. Children with higher levels of motor competence are more likely to engage in regular physical activity and demonstrate better physical fitness than those with lower motor competence ([Liu et al., 2023](#)).

Despite their importance, the development of fundamental movement skills among elementary school students remains a major challenge in physical education. Rapid technological advancement, increasing sedentary lifestyles, and reduced opportunities for outdoor play have limited children's engagement in movement experiences that support

motor development. Consequently, many students fail to achieve the expected level of motor competence, highlighting the need for effective instructional models that actively engage students and facilitate meaningful movement learning.

Numerous empirical studies have investigated learning models designed to improve students' fundamental movement skills. [Kuspratiwi et al. \(2025\)](#) demonstrated that circuit games effectively enhanced manipulative movement skills among elementary school students. Likewise, [Azzahra et al. \(2025\)](#) reported that tactical game approaches improved both decision-making and manipulative skills in physical education classes. [Dese et al. \(2025\)](#) further found that game-based learning significantly enhanced fundamental movement skills while increasing students' motivation. Supporting these findings, [Sun and Chen \(2024\)](#) conducted a systematic review and meta-analysis concluding that movement- and game-based interventions effectively improve children's fundamental movement skills and physical activity participation.

Although previous systematic reviews have provided valuable evidence regarding interventions for motor skill development, important research gaps remain. Existing reviews primarily examine the effectiveness of specific intervention types, such as game-based learning, movement programs, or physical activity interventions, without comprehensively comparing the wide range of instructional models implemented in elementary school physical education ([Sun & Chen, 2024](#)). Moreover, most reviews focus on intervention effectiveness through meta-analysis while giving limited attention to instructional characteristics, learning strategies, research trends, and pedagogical implications that can guide teachers in selecting appropriate learning models. In addition, previous reviews generally address fundamental movement skills broadly and rarely distinguish how different instructional models contribute to the development of locomotor, non-locomotor, and manipulative skills simultaneously. Therefore, a comprehensive synthesis that integrates various instructional models, identifies research trends, and evaluates their pedagogical effectiveness in elementary school settings is still lacking.

The novelty of this study lies in providing a comprehensive systematic review of instructional models used to improve elementary school students' fundamental movement skills by synthesizing empirical studies published during the last ten years. Unlike previous systematic reviews that mainly evaluated intervention effectiveness, this study compares different instructional models, identifies dominant research trends, examines their contributions to various components of fundamental movement skills, and discusses their pedagogical implications for elementary physical education. Therefore, this review is expected to provide a broader evidence base for researchers and practical guidance for physical education teachers in selecting effective learning models.

Based on this background, this study aims to identify instructional models used to improve elementary school students' fundamental movement skills and analyze the effectiveness of their implementation.

Methodology

In the data collection stage, articles were identified through comprehensive searches in several international scientific databases, namely Scopus, Web of Science (WoS), SPORTDiscus, and ERIC. These databases were selected because they provide extensive coverage of high-quality publications in the fields of education, sports science, and physical education. The search was limited to peer-reviewed research articles published between 2016 and 2026. To ensure a systematic and transparent search process, the review adopted the PICO (Population, Intervention, Comparison, Outcome) framework, which serves as the basis for formulating structured research questions and developing high-quality systematic reviews ([De Cassai et al., 2025](#)). The detailed description of the PICO framework used in this study is presented in Table 1.

Table 1. PICO Method

Components	Description
P (Problem/Population)	Basic Movement Skills of Elementary School Students
I (Intervention)	Physical education learning model
C (Comparison)	Conventional learning or without a specific training model
O (Outcome)	Learning models to improve basic movement learning outcomes

The application of the PICO method helps the author in formulating a research question, namely: "What is the learning model used to improve the learning outcomes of basic movement of elementary school students?" This framework also assists the author in finding related articles needed as research support data, for example by compiling search keywords such as (*Physical Education*), (*student*), and (*basic movement skills*) that are entered into the Publish or Perish search system. In this way, the author managed to collect the necessary articles. After the article search process is carried out, the next stage is data extraction using inclusion and exclusion criteria. The criteria are used to screen articles that are relevant to the research objectives so that only articles that meet the requirements are retained for further analysis, while articles that do not meet the criteria are excluded from the review process ([Page et al., 2021](#)). Details of inclusion and exclusion criteria can be seen in Table 2.

Table 2. Inclusion and Exclusion Criteria

Type	Inclusions	Exclusion
Article Type	Research results articles	Research report
Language	Indonesia and the UK	Other than Indonesian and English
Participants	Primary school and early childhood students	Athlete or coach of an accomplished sport
Year of publication	2016-2026	Under 2016
Outcome	Improve students' basic movements	-

Based on the search results, 500 articles were obtained from Google Scholar. Furthermore, 3 articles were deleted duplicate articles, 30 irrelevant citations, and 6 documents were booked, leaving 461 articles for the screening process. At the screening stage, a total of 179 articles were issued because they were not in accordance with the research topic. A total of 282 articles entered the full-text retrieval stage, but there were 5 articles that did not succeed in obtaining the complete manuscript. A total of 277 articles

were then assessed for eligibility assessment. At this stage, a total of 178 articles were issued because they did not focus on basic movement learning outcomes, 23 articles did not use learning or training models, 53 articles were not empirical research, and 2 articles focused on athletes. After going through the entire selection process, 21 articles were obtained that met the inclusion criteria and were used in the data synthesis process following the flow of the PRISMA 2020 diagram.

Result and Discussion

Based on the article search, screening, and selection process according to the predetermined inclusion and exclusion criteria, a total of 21 articles were selected and included in this systematic literature review. The selected articles were published between 2016 and 2026 and examined various instructional models and interventions aimed at improving elementary school students' fundamental movement skills. Analysis of the characteristics of the reviewed studies indicates that most employed quantitative experimental or quasi-experimental designs, while several adopted research and development (R&D) approaches to develop and validate learning models. The reviewed interventions predominantly involved game-based learning, traditional games, tactical games, circuit games, project-based learning, multimedia-based instruction, and sport-specific activities designed to enhance locomotor, non-locomotor, and manipulative skills. Overall, the scientific evidence can be considered moderate to strong, as the majority of studies consistently reported significant improvements in students' fundamental movement skills following the implementation of these instructional models.

However, many studies were conducted with relatively small sample sizes, short intervention durations, and single-school settings, which may limit the generalizability of the findings. Therefore, although the available evidence supports the effectiveness of these learning models, further studies with larger samples, longer intervention periods, and broader educational contexts are needed to strengthen the evidence base. A summary of the characteristics and findings of the reviewed articles is presented in Table 3.

Table 3. Article Review Presentation

No.	Author (Year)	Research Title	Learning/Training Model	Research Results
1	(Rizal & Hulu, 2021)	OBME For Learning Model Development Basic Students Locomotor Movement	OBME (Outbound Basic Motion Education)	Effectively improve the locomotor movement ability of elementary school students.
2	(Kuspratiwi et al., 2025)	The Effect of Circuit Games on Manipulative Movement	Circuit Games	Improve the ability to throw, catch, and kick elementary school students.
3	(Azzahra et al., 2025)	Tactical Game Approach Through Handball Games	Tactical Game Approach	Improve students' decision-making abilities and manipulative skills.
4	(Aulia & Thomi, 2024)	Tic Tac Toe Game Model	Tic Tac Toe Game	Improving the learning outcomes of locomotor movements of elementary school students.

5	(Bate et al., 2022)	Traditional Games on Manipulative Motion Skills / Locomotor Skills	Traditional Games	Significantly improve students' locomotor skills.
6	(Gusnaweti et al., 2025)	Game-Based Locomotor Learning Media	Game-Based Learning Media	Valid, practical, and increase student motivation and engagement.
7	(Santoso et al., 2024)	Traditional Games on Manipulative Movements	Traditional Games	Improve the manipulative skills of male and female students.
8	(Mahendra et al., n.d.)	Basic Manipulative Movement Learning Model	Play Activity Based Learning	Effectively improve students' object control skills.
9	(Palmizal et al., 2020)	Creative Gymnastics Model	Creative Gymnastics	Improve the locomotor movement ability of elementary school students.
10	(Kurniawan & Hanief, 2022)	Play and Games Modification	Play and Games Modification	Facilitating the basic movement needs of elementary school students.
11	(Darmawan & Asmawi, 2017)	Interactive Multimedia Based Basic Movement Model	Interactive Multimedia	Improve the basic movement skills of elementary school students.
12	(Bujang & Darmawan, 2019)	Development of Non Locomotor Motion Models	Non-Locomotive Motion Model	Produce non-locomotor motion models according to the characteristics of 7-year-old children.
13	(Indra et al., 2020)	Physical Education Learning Model Based on Bed Learning Environment	Environment Based Learning	Develop basic movement skills through the rice field environment.
14	(Pardede, 2020)	Snake Game Model for Basic Movement Skills	Snake and Ladder Game	Improve basic movement skills of elementary school students.
15	(Aliriad et al., n.d.)	Project-Based Learning Model, Age, and Motor Educability on Fundamental Motor Skills	Project Based Learning	Improve the fundamentals of early childhood motor skills.
16	(Dese et al., 2025)	Game-Based Learning to Enhance Motivation and Fundamental Motor Skills	Game-Based Learning	Improve the motivation and fundamental motor skills of elementary school students.
17	(Ramadhani et al., 2024)	Learning Model Development Locomotor for Elementary School Students	Simple Games Model	Improve the ability of jumping locomotor movements of elementary school students.
18	(Pratiwi et al., 2024)	Learning Model of Basic Manipulative Movements of Throwing and Catching	Play-Based Manipulative Learning	Improve the child's throwing and catching ability.
19	(Verawati & Dewi, 2019)	Video Tutorial Big Ball Game Model	Video Tutorial Learning Media	Improve the manipulative skills of elementary school students.

20	(Riyanto et al., 2017)	Game-Based Motor Skills Learning Model	Game-Based Motor Learning	Develop students' affective, cognitive, and psychomotor aspects.
21	(Fadilah et al., 2025)	The Basics of Taekwondo Training	The Basics of Taekwondo Training	Significantly improve the fundamental movement skills of elementary school students.

A summary of the characteristics of the selected studies, including location, study design, samples, research focus, and core outcomes, is presented in Table 4.

Table 4. Summary of Selected Studies

No.	Author/Year	Location	Research Design	Sample	Research Focus	Core Results
1	(Rizal & Hulu, 2021)	Indonesia	R&D	Elementary School Students	Development of the OBME model for locomotor motion	A valid and effective model improves students' locomotor motion
2	(Kuspratiwi et al., 2025)	Indonesia	Experiments	Elementary school students aged 9-10 years old	The influence of circuit games on manipulative motion	Circuit games improve students' manipulative abilities
3	(Azzahra et al., 2025)	Indonesia	Experiments	Elementary School Students	Tactical Game Approach through handball games	Improve decision making and manipulative skills
4	(Aulia & Thomi, 2024)	Indonesia	Experiments	Elementary School Students	Tic Tac Toe game model against locomotor motion	Improve locomotor motion learning outcomes
5	(Bate et al., 2022)	Indonesia	True Experimental	Elementary School Students	The influence of traditional games on locomotor	Improving students' locomotor skills
6	(Gusnaweti et al., 2025)	Indonesia	R&D (ADDIE)	Elementary School Students	Development of game-based locomotor motion learning media	Valid, practical, and effective media use
7	(Santoso et al., 2024)	Indonesia	Experiments	Elementary School Students	Traditional games against gender-based manipulative gestures	Improve students' manipulative skills

8	(Mahendra et al., n.d.)	Indonesia	R&D	Grade V Elementary School Students	Development of a play-based object control learning model	Effective models improve object control capabilities
9	(Palmizal et al., 2020)	Indonesia	R&D	Elementary School Students	Development of the creative gymnastics model	Improves locomotor mobility
10	(Kurniawan & Hanief, 2022)	Indonesia	R&D	Elementary School Students	Development of a basic game-based motion learning model	The model is suitable for use in PJOK learning
11	(Darmawan & Asmawi, 2017)	Indonesia	R&D Borg & Gall	Grade I elementary school students	Interactive multimedia for basic motion learning	Improving the basic movement skills of elementary school students
12	(Bujang & Darmawan, 2019)	Indonesia	R&D Borg & Gall	7-year-old child	Development of non-locomotor motion models	Models according to the characteristics of child development
13	(Indra et al., 2020)	Indonesia	R&D	60 students in grade III of elementary school	Rice paddy-based learning	Valid model and improves basic motion ability
14	(Pardede, 2020)	Indonesia	R&D	Elementary School Students	Development of snake and ladder game models	Improve students' basic movement skills
15	(Aliriad et al., n.d.)	Indonesia	Factorial Experiment	Early childhood	The Influence of Project-Based Learning on FMS	PjBL improves fundamental motor skills
16	(Dese et al., 2025)	Indonesia	Quasi Experimental	34 elementary school students	Game-Based Learning on motivation and FMS	Improve students' motivation and fundamental motor skills
17	(Ramadhani et al., 2024)	Indonesia	R&D Borg & Gall	Grade III Elementary School Students	Development of a simple game-based jump locomotor motion model	Effective models improve the ability of jumping locomotives
18	(Pratiwi et al., 2024)	Indonesia & Spain (International Journal)	R&D	Children aged 5-6 years	Development of a play-based throwing model	Generates 14 effective game models for throwing skills

19	(Verawati & Dewi, 2019)	Indonesia	R&D	Elementary School Students	Development of video tutorials of big ball games	Improve students' manipulative movement skills
20	(Riyanto et al., 2017)	Indonesia	R&D	Children aged 9-10 years	Development of a game-based motor learning model	Develop students' affective, cognitive, and psychomotor aspects
21	(Fadilah et al., 2025)	Indonesia	Quantitative Experiment (One Group Pretest-Posttest)	25 elementary school students	The effect of Taekwondo fundamental training on FMS	Significantly improve students' fundamental movement skills

Based on the results of the extraction and grouping of 21 articles that included the inclusion criteria, 7 main themes were recommended. Keep in mind that a single article can fit into more than one theme, so the total number of articles in the column doesn't have to be 21.

Table 5. Thematic Synthesis of Review Results 21 Articles

No.	Theme Findings	Number of Articles	Summary of Findings	General Implications
1	Game-Based Learning	10	Game-based learning models such as circuit games, tic tac toe games, snake games, game-based learning, play activities, and game modifications have been proven to improve students' basic movement skills, especially aspects of locomotor, manipulative, and fundamental movement skills.	Game-based learning can improve the engagement, motivation, and basic movement learning outcomes of elementary school students.
2	Traditional Games and Tactical Game Approach	4	Traditional games and tactical approaches are effective in improving manipulative skills, locomotor skills, as well as decision-making skills in physical education activities.	Teachers can utilize traditional games and tactical approaches to develop students' movement skills as well as thinking skills.
3	Development of basic motion learning (R&D) models	11	Most studies develop valid, practical, and effective basic motion learning models to improve students' locomotor, non-locomotor, manipulative, and object control skills.	It is necessary to innovate learning models that are in accordance with the development characteristics of elementary school students.
4	PJOK learning media and multimedia	3	The use of interactive multimedia, video tutorials, and game-based learning media helps students understand movement concepts and improve motor skills.	Technology integration can increase the effectiveness of physical education learning.

5	Fundamental Movement Skills (FMS) and motor training	4	Motor training, project-based learning, game-based learning, and fundamental taekwondo training are able to significantly improve students' fundamental movement skills.	The development of FMS needs to be carried out systematically because it is the foundation of more complex sports skills.
6	Manipulative Motion and Object Control	6	Play-based learning models, traditional games, tactical game approaches, video tutorials, and object control models are effective in improving the skills of throwing, catching, kicking, and controlling objects.	Manipulative skills need to be the focus of PJOK learning because they support the mastery of various sports.
7	Locomotor Motion	8	Various models such as OBME, creative gymnastics, traditional games, tic tac toe games, and game-based media are effective in improving the ability to walk, run, jump, and move from place to place.	Learning varied locomotor movements can help students' motor development optimally.

The results of the systematic literature review showed that the most dominant theme in the research related to basic movement of elementary school students was the use of game-based learning models and motor activities. In the context of physical education, play activities provide opportunities for students to build movement knowledge through practical experiences, cooperation, and interaction during learning. The application of game-based learning, traditional games, and tactical game approaches in various studies shows that play activities are able to improve the locomotor skills, manipulative movements, and basic movement skills of elementary school students. These findings are in line with the results of a systematic study that shows that game-based learning and gamification in physical education are able to increase motivation, learning engagement, academic performance, and student participation in physical activities, thereby supporting the development of affective, cognitive, and psychomotor aspects in an integrated manner ([Camacho-Sánchez et al., 2023](#)). In addition, research ([Dese et al., 2025](#)) also shows that game-based learning can significantly increase students' motivation and fundamental movement skills. The findings reinforce the view that game-based learning not only improves motor skills, but also supports students' active engagement in learning.

Another theme that emerged in the synthesis results was the use of traditional games and tactical game approaches in physical education learning. Traditional games provide a learning experience that is close to students' lives so that it can increase students' participation and basic movement skills naturally. Research ([Santoso et al., 2024](#)) shows that traditional games are effective in improving the locomotor skills and manipulative movements of elementary school students. In addition, research ([Azzahra et al., 2025](#)) shows that tactical game approaches can improve students' decision-making skills and manipulative skills through game activities that require students' active involvement in game situations.

In addition, the fundamental theme of movement skills and motor training in this study is also related to the theory of motor development which states that basic movement

skills need to be developed from an early age through structured and continuous exercise. Motor exercises that are carried out actively and repeatedly are able to improve coordination, balance, agility, and movement ability of students. Research ([Fadilah et al., 2025](#)) shows that basic taekwondo training is able to significantly improve the fundamental movement skills of elementary school students. These findings reinforce the view that structured motor training activities have an important role in supporting the motor development of elementary school-age children.

Table 6. Synthesis of Similarities and Differences of Findings

Aspects	Consistent Studies	Different Studies	Divergence Explanation
The effectiveness of game-based learning	Most studies show that game-based models such as circuit games, tic tac toe games, snake games, game-based learning, play activities, and modified games are effective in improving students' basic movement skills.	Some studies use traditional game and tactical game approaches that not only improve basic movement but also students' decision-making skills.	The difference is caused by the characteristics of the game used and the learning objectives to be achieved.
Increased locomotor motion	(Aulia & Thomi, 2024 ; Bate et al., 2022 ; Gusnaweti et al., 2025 ; Palmizal et al., 2020 ; Ramadhani et al., 2024 ; Rizal & Hulu, 2021) reported a significant improvement in students' locomotor skills.	Some studies focus more on manipulative or object control so they do not report specific locomotor results.	The difference occurred because the focus of the movement skills that were the target of the intervention was different in each study.
Improved manipulative motion and object control	(Kuspratiwi et al., 2025 ; Mahendra et al., n.d. ; Pratiwi et al., 2024 ; Santoso et al., 2024 ; Verawati & Dewi, 2019) showed an improvement in students' manipulative skills.	(Azzahra et al., 2025) not only improves manipulative but also decision-making abilities through the Tactical Game Approach.	The tactical approach has an additional impact on cognitive aspects in addition to movement skills.
Fundamental Movement Skills (FMS)	(Aliriad et al., n.d. ; Dese et al., 2025 ; Fadilah et al., 2025) showed a fundamental improvement in movement skills after intervention.	Other research focuses more on specific components of motion such as locomotor or manipulative.	The difference arises because some studies measure FMS thoroughly, while other studies only assess specific components.
Development of learning models (R&D)	Most R&D research results in models that are declared valid, practical, and effective to be used in PJOK learning.	The form of the product developed is different, ranging from game models, learning media, interactive multimedia, to video tutorials.	The variety of development products is adjusted to the learning needs and characteristics of students.
Use of learning media	(Darmawan & Asmawi, 2017 ; Gusnaweti et al., 2025 ; Verawati & Dewi, 2019) shows that learning media increases students' motivation and understanding of movements.	Most other studies use direct motion activities without the help of digital media.	The difference is influenced by the availability of technology and the purpose of developing learning media.

Impact on student motivation and participation	(Dese et al., 2025; Gusnaweti et al., 2025) and several game models reported increased motivation and student engagement in learning.	Some studies only measure the improvement of movement skills without assessing motivation or participation aspects.	The differences occurred due to variations in the instruments and variables measured in each study.
Research methods used	Research is dominated by quantitative approaches through experimental design and Research and Development (R&D).	No qualitative or mixed method research was found in the reviewed articles.	The focus of the research is more directed at measuring the effectiveness of learning models and the development of learning products.

The results of the systematic literature review show that most studies have in common the findings that game-based learning models and motor activities are effective in improving the learning outcomes of basic movement of elementary school students. Research ([Rizal & Hulu, 2021](#)), ([Kuspratiwi et al., 2025](#)), ([Riyanto et al., 2017](#)), and ([Dese et al., 2025](#)) shows that game-based learning is able to significantly improve students' locomotor skills, manipulative movements, and fundamental movement skills. The findings suggest that play activities can improve student engagement, learning motivation, and hands-on movement experience in physical education learning.

However, there are some differences in findings between studies, especially in the focus of basic movement, learning media, and the effectiveness of the implementation of learning models. Some studies such as ([Bate et al., 2022](#)) and ([Palmizal et al., 2020](#)) emphasize more on improving locomotor skills through game activities and creative gymnastics, while studies ([Mahendra et al., n.d.](#)) and ([Verawati & Dewi, 2019](#)) focus more on improving manipulative movements and object control. The difference in the focus of the research causes the results obtained to also differ according to the type of movement skills developed.

Differences can also be seen in the use of learning media. Research ([Darmawan & Asmawi, 2017](#)) and ([Verawati & Dewi, 2019](#)) show that interactive multimedia and video tutorials have a positive impact on students' basic movement understanding because students can see examples of movement visually and repeatedly. However, research ([Indra et al., 2020](#)) shows that the use of a natural learning environment is also effective in improving students' basic movements through direct activities in the surrounding environment. This shows that the success of basic movement learning is not only determined by the use of technology, but also influenced by the active involvement of students and the suitability of learning media with the characteristics of elementary school students.

In general, the results of this study show that the use of innovative learning models based on games and motor activities is very effective in improving the learning outcomes of basic movement of elementary school students. Therefore, physical education teachers are advised to apply a learning model that is varied, active, and according to the

characteristics of student development so that the learning process becomes more effective and enjoyable. These findings show that play-based PJOK learning has great potential in supporting the motor development and basic movement skills of elementary school students.

This systematic literature review has several limitations. First, the articles reviewed are limited to publications in 2016-2026 as well as articles in Indonesian and English, so there is a possibility that other relevant research outside these criteria will not be identified. Second, the article search process is only carried out through the Google Scholar database with the help of the Publish or Perish application, so articles from other databases such as Scopus or Web of Science are potentially unreachable in the review process.

Third, most of the articles analyzed used a quantitative approach with experimental design and Research and Development (R&D), and measured more of the effectiveness of learning in the short term without conducting follow-up studies. Fourth, there are variations in research focus, learning models, and subject characteristics that cause the research results to not be fully comparable directly. Fifth, most of the articles come from the context of education in Indonesia so that the results of the review are more representative of the learning conditions of physical education at the national level.

Nevertheless, this review still provides a comprehensive overview of the learning and practice models used to improve basic movement learning outcomes of elementary school students and can be the basis for further research involving more diverse data sources, research contexts, and methodological designs.

Based on the results of the systematic literature review, further research is recommended to examine the effectiveness of basic motion learning models in the long term, and research that integrates learning technologies, such as interactive multimedia, digital applications, and blended learning, is needed to support more innovative basic motion learning. In addition, the development of a learning model that integrates play activities, traditional sports, and character education needs to be carried out to support students' motor, social, and affective development optimally.

Conclusion

Based on a systematic literature review of 21 analyzed articles, it can be concluded that game-based learning models and traditional games effectively improve elementary school students' fundamental movement skills (locomotor, non-locomotor, and manipulative) by creating active, enjoyable, and participatory learning environments while also enhancing cognitive and affective outcomes, particularly learning motivation and decision-making skills. However, existing studies are still dominated by quantitative and R&D approaches, with limited evidence regarding their long-term impact on character development. Therefore, physical education teachers are encouraged to integrate these learning models consistently into classroom practice, schools should provide adequate facilities and professional development to support their implementation, and curriculum developers should incorporate evidence-based game-oriented pedagogies alongside character education objectives. Furthermore, future research should employ longitudinal

designs to examine the sustainability of learning outcomes and conduct multi-country comparative studies to evaluate the effectiveness of these instructional models across different educational and cultural contexts, thereby providing stronger evidence for the development of globally relevant physical education practices.

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