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The Role of Physical Education in Building Students' Soft Skills: A Literature Study

[1]Bayu Insanistyo*, [1]Dian Pujianto, [2]Ali Radhi Abdul Hussein
Corresponding Author: *bayuinsanistyo@unib.ac.id
[1] University of Bengkulu, Indonesia
[2] University of Babylon, Al Hillah, Iraq

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ABSTRACT

Physical Education has a strategic role in developing students' physical fitness and building non-technical skills (soft skills) that are very much needed in the 21st century. The purpose of this study is to systematically examine the contribution of Physical Education in developing students' soft skills through literature studies. The research method uses the Systematic Literature Review (SLR) approach with PRISMA guidance. Data were collected from the Google Scholar and Scopus databases using the keywords "Physical Education", "Soft Skills", and "Students" for publications in 2013–2023. Of the 126 articles found, 15 met the inclusion criteria for further analysis. This literature study indicates that Physical Education plays an important role in building students' soft skills, such as leadership, teamwork, communication, self-control, and problem-solving. Various learning models such as Sport Education, Cooperative Learning, traditional games, and adaptive Physical Education have proven effective in developing these skills. However, developing soft skills through Physical Education still faces obstacles, including limited teacher competence, inadequate facilities and infrastructure, and limited learning time. In addition, there is still a research gap related to using technology-based models and longitudinal studies to see the long-term impact. Physical Education can potentially strengthen students' soft skills if it is supported by learning innovation, teacher capacity building, and a curriculum responsive to students' character development needs.

Keywords
Learning Models
Literature Review
Physical Education
Soft Skills

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Introduction

Physical education in schools plays a very important role in developing students' physical aspects and shaping their personality and life skills [1]. The demand for soft skills mastery is increasing in the era of globalization and the Industrial Revolution 4.0. The world of work no longer only emphasizes cognitive abilities or hard skills, but also demands good interpersonal, communication, teamwork, leadership, and adaptability skills [2], [3]. This aligns with Goleman's opinion that emotional intelligence, as part of soft skills, determines individual success more than intellectual intelligence alone [4].

Physical education is still often perceived as merely physical activity or sports. In fact, through the right learning process, physical education can effectively develop students' soft skills such as discipline, responsibility, sportsmanship, leadership, and the ability to work together in a team [5]. Sports activities carried out in the context of learning at school can train students to face challenges, solve problems, and adapt to their social environment [2].

Physical education can develop students' social dimensions through interactions between individuals in games and sports that contain elements of collaboration, communication, and problem-solving. Physical education becomes a social learning space that hones students' abilities to empathize, manage conflict, and build positive interpersonal relationships [1]. In addition, according to the experiential learning theory proposed by Kolb in 1984, physical activities such as sports provide direct experience (concrete experience), which is important in the process of forming soft skills. This experience teaches students to make decisions, think strategically, and control emotions in competitive and cooperative situations [6]. This is relevant to the demands of the independent learning curriculum in Indonesia, which emphasizes the development of student character as one of the learning outcomes.

Physical education also plays a role in developing soft skills. Soft skills such as leadership, teamwork, and communication can be developed through physical activity-based learning models in educational settings. Thus, physical education can effectively support the development of adaptive, creative, and globally competitive Pancasila-based student profiles. [7]

Not all physical education teachers explicitly integrate soft skills development into learning activities. Many still prioritise motor skills and physical fitness aspects alone [8]. In

fact, if managed with the right pedagogical approach, such as Cooperative Learning, Teaching Games for Understanding (TGfU), or the Sport Education Model, physical education learning can significantly contribute to strengthening students' soft skills [9].

Education experts have begun to emphasise that soft skills are a key asset in shaping a resilient young generation. As expressed by Madhuri, skills such as effective communication, interpersonal skills, and leadership are key determinants of a person's success in the professional world [10]. This further emphasises the urgency of Physical Education learning that focuses on mastering sports techniques and fosters life values. Well-planned physical education programs have been shown to improve students' social and emotional competence. Physical activities that require teamwork and social interaction provide opportunities for students to learn to respect each other, solve problems collectively, and build self-confidence [11]. This is evidence that Physical Education has a multidimensional function in supporting the holistic development of students.

In the context of Indonesia, Regulation of the Minister of Education and Culture Number 24 of 2016 concerning Core Competencies and Basic Competencies states that physical education functions to build the character of students who are healthy, fit, ethical, and have a spirit of sportsmanship. This provision further strengthens the position of Physical Education as a vehicle for developing soft skills that cannot be ignored in the educational process in schools. However, evaluations in various schools show that implementing Physical Education oriented towards soft skills is not optimal. There is still a gap between curriculum expectations and practices in the field. Therefore, it is important to conduct a literature review to identify the extent of the role of Physical Education in building students' soft skills, the obstacles teachers face in its implementation, and effective learning strategies to achieve these goals.

Based on this background, this article examines the role of physical education in building students' soft skills through literature studies. This study is expected to contribute to developing a more comprehensive, integrated, and contextual physical education learning model in accordance with the needs of the 21st century.

Methods

This research method applies the Systematic Literature Review (SLR) approach, which refers to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The SLR approach was chosen to obtain a comprehensive, systematic, and directed understanding of the role of physical education in building students' soft skills. SLR is an effective method for objectively synthesising various primary research findings so that evidence-based conclusions can be formulated [12], [13].

This study's design began with identifying data sources through two trusted scientific databases, namely Google Scholar and Scopus. These two databases were selected based on their ability to provide reputable scientific articles relevant to physical education and the development of students' soft skills. To filter relevant articles, the researcher used a combination of keywords in English and Indonesian, namely "Physical Education" AND "Soft Skills" AND "Students". Using these two languages aims to expand the scope of the search, considering that some research related to Physical Education and soft skills is published in national and international journals [14].

In the selection process, strict inclusion criteria are applied to make the selected articles truly relevant to the research topic. The inclusion criteria include: (1) articles published in the 2013–2023 period, so that the literature analyzed is still current and relevant to current scientific developments; (2) articles in Indonesian or English to ensure a complete understanding of the content; (3) the main focus of the research is the relationship between physical education and the development of students' soft skills; and (4) is primary research using either a quantitative, qualitative, or mixed methods approach.

Meanwhile, exclusion criteria were set to filter out articles that did not meet the requirements, namely: (1) articles that did not go through a peer-reviewed process because they were feared to be less scientifically valid; (2) articles that were not available in full-text format so that the information could not be accessed in full; (3) the research population was not students, for example involving teachers, coaches, or professional athletes; and (4) the focus of the study was not directly related to the development of soft skills.

Implementing the PRISMA procedure ensures the selection process is transparent, structured, and replicable [13]. This method allows the literature review results to provide a comprehensive picture of the extent of physical education's role in forming students' soft skills. The article selection process is carried out in stages based on the PRISMA protocol, which includes four main stages (Picture 1). During the identification stage, researchers conducted a literature search through two primary databases: Google Scholar and Scopus. This search resulted in 126 articles related to the research topic. All articles found were then compiled into a single initial list. At this stage, researchers ensured all downloaded articles had complete metadata, including title, author, year of publication, and publication link. Furthermore, an initial check was performed for article duplication, which may arise from the same article being found in more than one database. Articles detected as duplicates were recorded, and only one version was retained to avoid data bias.

In the screening stage, researchers reviewed the titles and abstracts of all articles to assess their relevance to the research focus. Articles that were clearly off-topic, such as studies

covering different disciplines (e.g., nursing, veterinary medicine, or industrial management) or not addressing physical education and soft skills development, were immediately eliminated. This process resulted in 78 articles being excluded. Articles that were not fully accessible (full text unavailable) were also excluded, as limited access can hinder a thorough assessment of the content.

Then, in the eligibility stage, researchers reviewed the full text of the remaining 33 articles. This review was conducted more in-depth to ensure compliance with the previously established inclusion criteria. The primary focus at this stage was to assess whether the study population was relevant to the research context, namely involving students or learners as subjects. Articles that used research populations outside the criteria, such as teachers, education personnel, or general community respondents, were excluded from the analysis because they were deemed not to represent the research objectives. From this review, 18 articles were eliminated primarily due to the inappropriateness of the research population, even though the general topic was still related to physical education.

The final stage was inclusion, where researchers identified articles that met all inclusion criteria, including population, topic relevance, research methods, and full-text availability. At this stage, 15 articles were selected for further analysis. These articles were deemed most representative in answering the research questions and providing a strong basis for drawing conclusions and implications. See Fig. 1 for the summary of this process.

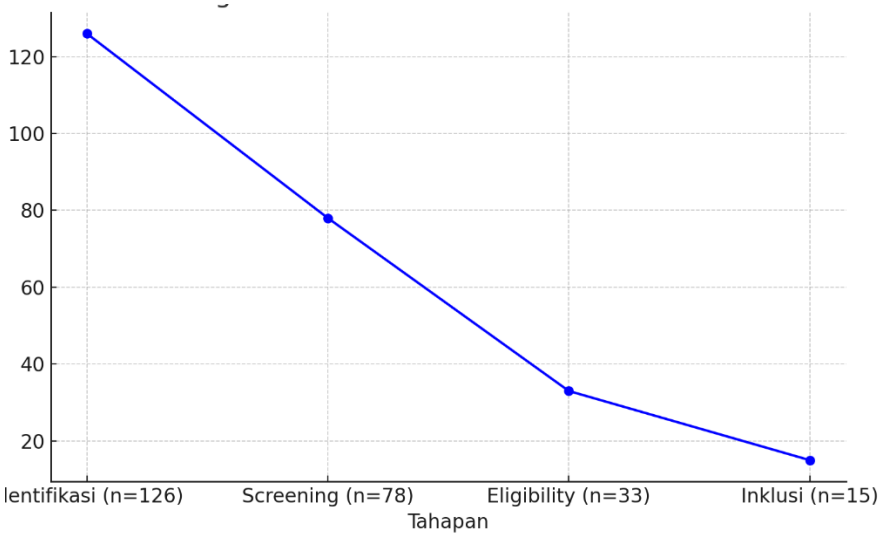

Fig. 1. PRISMA Flowchart of Article Selection Process

Results

Table 1 shows the selected papers. It is a review of 15 articles included on the contribution of physical education in building students' soft skills.

Table 1. Selected Articles

No.	Title	Results	Limitations	References
1	The educational benefits claimed for physical education and school sport: An academic review	Physical education plays a role in developing teamwork, leadership, and students' self-esteem.	Lack of primary empirical data	[15]
2	Effects of a skill themes approach on skill performance and perceived competence	Increased perceived competence and cooperation	Sample limited to elementary schools only	[16]
3	Classroom teachers' perceptions of the impact of barriers to teaching physical education	Teachers are aware of the role of Physical Education in building social skills	Respondents are limited to one country	[17]
4	A comparison of traditional and sport education on students' motivation	The sports education model improves leadership and teamwork	Only one cultural context (US)	[18]
5	The role of PE in promoting life skills: Malaysian teachers' perspective	Physical education helps self-control, respect, cooperation	Interview only in Malaysia	[19]
6	Participation in Physical Education Classes, Psychological Well-Being, and Sleep Satisfaction Among South Korean Adolescents	Physical education activities contribute to psychological well-being and sleep satisfaction	Self-report data, potential for social bias	[20]
7	Can cooperative learning achieve the four learning outcomes?	Cooperative learning effectively builds problem solving, communication	Lack of evidence at high school level	[21]
8	PE and life skills education: Teachers' beliefs	PE facilitates time management & decision making	Does not measure student output directly	[22]
9	Influence of physical activity on psychological skills in adolescents	Physical activity improves self-confidence and stress management	Short intervention duration	[23]
10	The influence of the Physical Education learning model on junior high school students' soft skills	Cooperative learning model improves student communication	Limited to junior high school students in Jakarta	[24]
11	The role of physical education in character formation of elementary school students	Physical education forms discipline, responsibility, honesty	Not compared with control group	[25]
12	The relationship between physical education activities and students' social skills	There is a significant relationship between Physical Education and student teamwork	Non-experimental design	[26]
13	The influence of traditional games on soft skills	Traditional games increase tolerance and leadership	Only valid at certain schools	[27]
14	The impact of physical fitness on resilience to modern life	Physical education has an impact on life stress	Limited external variable control	[28]

No.	Title	Results	Limitations	References
	stress and the mediating role of general self-efficacy	and self-efficacy plays a role in this influence.		
15	Adaptive physical education and soft skills development for inclusive students	Adaptive physical education can train students' empathy and cooperation	Focus only on special needs students	[29]

Table 2 provides an overview of the methodological quality of the reviewed studies, covering various research designs such as literature reviews, experiments, qualitative, quantitative, and mixed-method approaches. The table evaluates each study based on clarity of population and sample, instruments used, data analysis techniques, and the assessed risk of bias. Findings show that while most studies provided clear samples and appropriate instruments, the majority had a medium risk of bias, with some studies categorized as high risk (particularly reviews and self-reported surveys) and only a few reaching low risk through robust experimental or statistical methods.

Table 2. Methodological Quality Assessment

No.	Study Design	Clarity of Population & Sample	Instruments & Data	Data Analysis	Risk of Bias	References
1	Literature review	There are no empirical samples	No instruments (secondary)	Narrative	High	[15]
2	Quasi-experiment	Sample is clear (elementary school), but limited	Skills test, perception questionnaire	Basic statistics	Medium	[16]
3	Qualitative (interview)	Teachers, students	Interview	Thematic analysis	Medium	[17]
4	Experiment	Students (US) are clear, but 1 cultural context	Motivational instruments	Inferential statistics	Medium	[18]
5	Qualitative	Teachers in Malaysia	Interview	Narrative analysis	Medium	[19]
6	Quantitative	Clear sample (Korean teenager)	Self-report	Descriptive & inferential statistics	High	[20]
7	Systematic review	No primary samples	Secondary articles	Narrative synthesis	High	[21]
8	Mixed method	Teachers, students	Questionnaire + interview	Combination analysis	Medium	[22]
9	Quantitative	Teenagers, clear but brief intervention	Psychological scale	Statistics	Medium	[23]
10	Experiment	Jakarta Middle School	Soft skills instruments	Inferential statistics	Low	[24]
11	Descriptive quantitative	Elementary school, obviously	Questionnaire	Descriptive	Medium	[25]
12	Correlational	Student population	Questionnaire	Correlation	Medium	[26]
13	Experiment	Students of certain schools	Observation & soft skills test	Statistics	Medium	[27]

No.	Study Design	Clarity of Population & Sample	Instruments & Data	Data Analysis	Risk of Bias	References
14	Quantitative	Respondents are clear	Self-efficacy scale	Multivariate statistics	Low	[28]
15	Qualitative	Inclusive students	Observation & interview	Thematic	Medium	[29]

Discussion

A. Contribution of Physical Education in Building Students' Soft Skills

Soft skills refer to the 21st-century competency framework developed by the Organization for Economic Co-operation and Development (OECD). The OECD classifies soft skills as social-emotional skills that complement hard skills and are particularly relevant for development through group-based physical education.

Research shows that physical education fosters teamwork and leadership in students. Sports education models and game-based approaches can develop leadership and the ability to work collaboratively in groups [6], [15]. Other findings suggest that cooperative learning models in physical education can significantly improve students' communication skills, a soft skill essential for social interactions outside the classroom [24].

Physical education activities also increase self-esteem, perceived competence, and self-confidence [16]. This increased self-confidence plays a major role in shaping students' self-identity and belief in excelling in various fields. Physical education provides a space for students to recognize and manage their physical abilities, fostering self-confidence. Regarding self-control, respect, and cooperation, similar results were reported in Malaysian teachers who considered physical education an effective way to cultivate self-control and respect for rules and peers. These values are fundamental in the process of internalizing social norms and ethics [19].

In addition, other studies have revealed the importance of cooperative learning models in physical education that support problem-solving and communication skills. These skills are relevant in various contexts, formal learning activities, and everyday social life [17], [21]. Regarding character development, it has also been highlighted that physical education shapes discipline, responsibility, honesty, and tolerance. Physical education activities based on traditional games, for example, can foster a spirit of sportsmanship, leadership, and empathy among students [25], [30].

The contribution of Physical Education to students' well-being and stress management has also been proven [20]. Structured physical activity in Physical Education subjects improves students' psychological well-being and sleep satisfaction, which are important foundations for optimal cognitive and social learning [28]. Special attention is also given to students with special needs through adaptive Physical Education. Physical Education effectively cultivates

empathy and social cooperation in an inclusive environment, demonstrating the flexibility of Physical Education in reaching a diverse student population [29].

Based on the literature analysis, physical education positively contributes to building students' soft skills, especially cooperation, leadership, self-confidence, self-control, and other social skills. Although the reviewed studies have some methodological limitations, these cumulative results strengthen the argument about the importance of optimising physical education programs in schools to support the development of students' 21st-century character and skills.

1. Leadership in Physical Education

Research shows that leadership is one of the most powerful soft skills developed through physical education. Physical education activities improve fitness and foster self-confidence, self-esteem, and leadership skills [15]. Other research comparing traditional models with physical education reinforces these findings, where students take on the role of captain, mini-coach, or team organizer. The opportunity to lead a group encourages students to learn to organize, make decisions, and motivate teammates [18].

Another study added the role dimension of traditional games. In local culture, these games create group dynamics that allow students to hone their natural leadership skills, such as strategizing, maintaining unity, or resolving conflicts [27]. From a character-building perspective, it is emphasized that leadership in physical education is closely related to the values of discipline, responsibility, and honesty. This shows that leadership developed in sports learning does not stand alone, but is integrated with forming moral character [25].

From these three studies, the traditional sports and games education model effectively develops situational leadership, which emerges naturally according to the group's needs. However, several researchers warn of the limitations of empirical data, so this evidence needs to be supplemented by long-term experimental research [15].

2. Teamwork in Physical Education

Teamwork is the most consistent aspect and appears in almost all studies. The sports education model is superior to the traditional model in encouraging student collaboration [18]. Physical education provides a space for students to develop basic social skills, such as sharing roles, respecting peers, and resolving conflicts [17].

Other research broadens the perspective by emphasizing the values of self-control and respect that emerge in teamwork. According to teachers in Malaysia, physical education provides a concrete arena for students to learn to obey rules and respect their peers, two important foundations for building long-term cooperation [19]. A systematic review study also highlighted the effectiveness of cooperative learning in supporting collaborative

problem-solving. This is relevant to the demands of 21st-century skills, where the ability to work together in teams across backgrounds is crucial [21]. Furthermore, in the context of inclusion, it has been shown that adaptive physical education can build empathy and solidarity between regular students and students with special needs. Thus, teamwork in physical education is not only limited to sports and competitive activities, but also includes internalizing social values, self-control, and collaborating in diverse environments [29].

3. Communication in Physical Education

The communication dimension is more closely related to the cooperative learning model. Studies have found that junior high school students participating in cooperative learning demonstrate significant improvements in communication skills, particularly in conveying ideas, listening, and discussing [24]. This aligns with other studies that reveal that teachers view physical education as an effective means of fostering decision-making and verbal interaction among students [22].

Other findings also emphasize the importance of communication in group problem-solving. In the process, students learn to clarify instructions, convey strategies, and provide feedback [21]. Meanwhile, physical education plays a role in instilling honesty, discipline, and responsibility, ethical values inherent in healthy communication. Thus, communication in physical education is both technical (e.g., giving instructions) and ethical [25].

B. Effective Learning Models

Based on the results of a study of 15 reviewed articles, various learning model approaches have been designed and developed to systematically integrate physical skills with strengthening non-technical skills (soft skills), including teamwork, leadership, responsibility, communication, empathy, and self-control.

Table 3. Conceptual framework of physical education activities, learning models, and specific soft skill outcomes

No.	Learning Models	Physical Education Activities	Specific Soft Skill Outcomes
1	Sports Education Model	A small league game of volleyball, soccer, basketball, or futsal in class, where students take turns leading the team, organising the schedule, and evaluating the group's performance	Building leadership and teamwork, as students are given active roles as team captains, mini coaches, referees, or strategists
2	Cooperative Model	Pair gymnastics exercises, group work relays, problem-solving games such as trust fall or simple strategy games	Improve communication, both verbal and non-verbal, and train collaborative problem-solving skills.

No.	Learning Models	Physical Education Activities	Specific Soft Skill Outcomes
3	Traditional Games and Inclusive Activities	Gobak Sodor, Bentengan, Engklek, or other traditional games that require teamwork and strategy. In the context of inclusion, these can be simple game modifications.	Strengthening the values of natural leadership, empathy, tolerance and solidarity.
4	General Physical Education	Basic athletic games (relay race, simple long jump), rhythmic gymnastics, group games with standard rules that must be followed	The formation of social character such as discipline, responsibility, self-control, and ethics in interactions.

One widely used model is the Sport Education Model (SEM) [18]. This model facilitates learning through simulation of a real sports team atmosphere, where students are given the role of a player, coach, manager, or referee. By implementing these roles, students learn to manage tasks, make decisions, communicate with the team, and lead peers. The results showed an increase in the leadership and teamwork aspects of students, which are the main components of soft skills in educational environments and the world of work.

In addition, the Cooperative Learning Model is another popular approach used in various studies [17], [21]. This model emphasises the importance of collaboration between students to complete movement tasks in groups. Through cooperative learning, students improve motor skills and hone communication skills, problem-solving, negotiation, and decision-making in a group context. This model has been proven effective in creating a mutually supportive learning atmosphere, respects differences, and is jointly responsible.

Meanwhile, the Skills Theme Approach focuses more on developing fundamental motor skills integrated with social activities in learning. This approach has succeeded in increasing students' perceived competence in their abilities and strengthening cooperation and social interaction between students [16]. In addition, a local wisdom-based approach is also adopted through Traditional Game Models such as *Gobak Sodor*, *Engklek*, or *Galasin*, providing opportunities for students to interact in a game atmosphere rich in cultural values. Through these activities, soft skills such as tolerance, sportsmanship, and leadership develop naturally in line with local values passed down from generation to generation [27].

An Adapted Physical Education Model was also developed to meet the needs of students with special needs. This model is designed for students with special needs in inclusive classes, with activity adjustments so that all students, both regular and disabled, can be actively involved. This model has been proven effective in training empathy, self-control, and the ability to interact with others, including students with physical and mental disabilities [29]. The life skills-based learning model is no less important. In this approach, Physical Education activities are designed to explicitly instill life skills such as self-control, respect for others, communication skills, and the ability to work together. The results of this study indicate that

Physical Education teachers need to design learning that not only develops physical fitness but also shapes students' character and social attitudes [19]. In addition, the Physical Education approach associated with the health-related physical education model has also received attention, where aspects of student well-being, such as sleep quality and mental health, are improved through structured physical activities. Although the main focus is not on soft skills, improving physical and psychological conditions is important for developing students' self-management and stress management skills [20].

These various learning models demonstrate the awareness that Physical Education can function more than just improving students' physical fitness. It can also be a vehicle for character building and essential social skills in the 21st century. These models allow students to learn through direct experience (experiential learning), bridging theoretical knowledge and real-life practical skills.

C. National Curriculum Context

Minister of Education Regulation No. 24/2016, soft skills identified in the literature regarding leadership, teamwork, communication, self-control, respect, and sportsmanship directly intersect with Core Competencies (KI), especially KI-2 (social attitudes) which emphasize honest, disciplined, responsible, caring, polite, responsive, and proactive behavior, and KI-4 (skills) which emphasize the ability to present, reason, and create in the psychomotor domain. Research findings related to the contribution of Physical Education, Sports, and Health to leadership and self-confidence [15], the effectiveness of sports education in building leadership roles and collaboration [18]; self-control training and respect for rules [19], are empirical evidence that strengthens the idea that learning Physical Education, Sports, and Health is the main vehicle for achieving KI-2 and KI-4. Furthermore, findings on improved communication through cooperative learning [24] indicate classroom practices aligned with the Core Competencies of Physical Education, Sports, and Health based on group work (e.g., team games, pair gymnastics, strategy relay) and authentic assessment (collaboration/ communication observation rubric). In other words, these studies not only found the “added value” of Physical Education, Sports, and Health, but also the core mandates listed in the competency structure of the 2013 Curriculum.

Pancasila Student Profile (PPP) in the Independent Curriculum, research findings are easily mapped into its six dimensions:

- faith, devotion to God Almighty, and noble morals reflected in self-control, respect, and sportsmanship [19], [25],
- independence related to self-esteem, perceived competence, and self-confidence [16], [30],

- critical reasoning seen in decision-making and tactical problem-solving in games [21],
- creativity seen when students design game strategies or modify rules;
- reciprocal cooperation is the core of teamwork and roles in sports education [18], and
- global diversity is trained through assertive communication and empathy in heterogeneous groups, also reinforced in adaptive Physical Education, Sports, and Health which fosters empathy and inclusive cooperation [29].

Evidence on traditional games (Gobak Sodor, Bentengan, Engklek) [27] shows that cooperation, situational leadership, and tolerance grow strong in the context of local culture. This aligns with the themes of the Pancasila Student Profile Strengthening Project (P5), such as Global Diversity, Sustainable Lifestyle, and, of course, Gotong Royong. Practically, physical education units can be designed as mini-leagues of sports education (captain/ referee/ scorekeeper roles), structured cooperative practices (pair gymnastics, problem-solving relay), and traditional games modified for inclusion; all three facilitate effective communication, leadership, and collaboration while providing space for authentic assessment (role observation, peer feedback, reflective journals, and PPP rubrics).

This article demonstrates that empirical findings are not only compatible but also provide pedagogical justification for physical education practices that guide students toward achieving the ideal profile of Pancasila. This integration makes the recommendations more operational for teachers and relevant for policymakers and has tangible implications for schools that emphasize physical education as a driving force for soft skills development in the Indonesian curriculum.

D. Inhibiting Factors

Although the potential of physical education in developing students' soft skills is widely recognised, various reviewed studies reveal several inhibiting factors that can reduce the effectiveness of the learning process in forming students' soft skills. These factors come from internal aspects of the learning, teachers, curriculum, and external factors such as school facilities and culture.

Several studies have shown that not all physical education teachers use innovative learning models that can stimulate students' soft skills. In many schools, traditional learning models focusing only on physical skills remain dominant, without clear integration between life skills, teamwork, or leadership learning. This causes the goal of developing soft skills to be less than optimally achieved [15], [21]. Teachers' limited knowledge about the importance of soft skills and how to integrate them into physical education learning is a significant obstacle. Some teachers tend to emphasize the technical aspects of movement skills without paying attention to students' social, emotional, or cognitive dimensions. Teachers' lack of training and

professional development in soft skills-based learning models also exacerbates this condition [17].

Other factors include limited school sports facilities and infrastructure. Lack of adequate sports equipment, limited fields, or even limited movement space makes it difficult for teachers to optimally implement active and cooperative learning models such as sports education or cooperative learning [16], [27]. Most schools set a very limited time for physical education in a week. The short duration of physical education implementation is not enough to fully implement project-based learning models or cooperative learning. Therefore, developing soft skills is less than optimal [24], [26].

School culture factors are also a barrier. Physical Education is still considered a supplementary subject in some schools, less important than other academic subjects. This perception results in low school attention and support in providing resources, curriculum development, and teacher training [19]. In addition, a less supportive social environment for students (for example, an overly competitive culture or bullying) can also hinder the development of desired soft skills [30].

Several reviewed studies also acknowledged the limitations of research design that affect program evaluation results, such as short intervention duration [30] or the absence of a control group [25]. This makes it difficult for researchers and teachers to obtain strong evidence regarding the effectiveness of certain learning models in developing soft skills, so their implementation in the field becomes less focused. Although the national curriculum in many countries, including Indonesia, has emphasized the importance of character education, the curriculum has not been fully implemented consistently in physical education learning. Teachers are often trapped in the target of cognitive and physical skills curriculum alone, so the soft skills development aspect is neglected.

Based on the literature review's results, the inhibiting factors in developing soft skills through physical education are complex and interrelated. These obstacles do not only come from limited teachers or facilities but also from weaknesses in curriculum design, perceptions of educational stakeholders, and limited learning time. To overcome these obstacles, synergy is needed between teacher capacity development, adequate facilities and infrastructure provision, a more contextual review of the physical education curriculum, and full support from school management.

E. Research Gap

One of the main gaps found is the lack of research with a longitudinal design that can continuously observe the development of students' soft skills over a long period. Most studies [16], [30] use experimental or quasi-experimental designs with short intervention durations.

However, developing soft skills such as leadership, self-control, or problem-solving requires a process that is not instantaneous, but rather through repeated practice over a long time to form behavioral habits. Thus, longitudinal research is needed to determine the extent to which the influence of physical education learning models can persist and provide long-term impacts on students' personalities and characters.

There are limitations in the population and research context that create gaps for further research. Most studies reviewed still focus on elementary and junior high school student populations in specific regions, such as Malaysia, western Indonesia, or the United States. Research involving high school students or equivalent entering a complex phase of social and emotional development is rare. Furthermore, research in rural or remote areas is also limited, even though school facilities and cultural conditions differ significantly from those in large cities. This opens opportunities to fill research gaps in regions with more diverse populations and educational backgrounds.

The next research gap relates to integrating specific soft skills into the Physical Education curriculum. Many studies assess soft skills in general, such as teamwork or leadership. However, few studies explicitly integrate or measure more structured and specific soft skill components, such as adaptability, creativity, negotiation, or digital communication skills, especially in today's digital age. Research has highlighted the importance of cooperative learning [21], but has not yet developed more detailed and measurable indicators of soft skills.

Some studies have not optimally combined a mixed methods approach, where quantitative data can be complemented by in-depth qualitative exploration of students' and teachers' experiences in the Physical Education learning process. Most studies [22], [30] still rely on simple questionnaire instruments or pre-posttests. In contrast, in-depth interviews or observations enrich the understanding of the formation of these soft skills.

The application of various learning models is limited. Several learning models, such as the Sports Education Model, Cooperative Learning, and traditional games, have been tested. However, other potential models, such as digital technology-based or blended learning in Physical Education, have not been widely studied. This presents an interesting research gap, given that the rapid development of educational technology enables the application of digital media in Physical Education activities to support the development of 21st-century soft skills.

This research gap shows that although empirical evidence regarding the contribution of Physical Education to soft skills is available, the direction of future research development is still very open, especially in terms of intervention duration, wider population, development of more specific soft skills indicators, and the application of new learning models based on technology and local culture.

Conclusion

Based on the results of a systematic review of 15 research articles analysed in this literature study, physical education has a significant role in building and developing students' soft skills at various levels of education. Physical education not only plays a role in improving physical fitness and motor skills, but also contributes significantly to strengthening non-technical skills that are greatly needed by students in everyday life and in competition in the world of work in the future. Various important soft skills, such as leadership, teamwork, self-confidence, communication skills, problem-solving, self-control, empathy, respect, and cooperation, have been proven to be developed through the right physical education learning model. Models such as Sport Education, Cooperative Learning, traditional games, and adaptive physical education have effectively honed students' social and emotional abilities. In addition, physical education has also been proven to be able to contribute to improving students' well-being, self-management, and stress management.

This study also found several obstacles in the implementation of Physical Education as a means of developing soft skills, such as limited teacher competence in implementing innovative learning models, lack of supporting facilities and infrastructure, limited time allocation, and negative perceptions that persist among education stakeholders regarding the importance of Physical Education lessons in building student character. In addition, this study identified research gaps that need to be filled in further research, including the lack of longitudinal studies to see the long-term impact of soft skills development through Physical Education, the lack of research on student populations at the senior high school level or in remote areas, and the need to explore digital technology-based learning models that are relevant to the needs of the current generation of students.

Conflict of Interest

The authors declare that there is no conflict of interest.

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Authors



Bayu Insanistyo is a lecturer in physical education, FKIP University of Bengkulu. He actively writes articles on the research area of physical education management, covering various aspects of managing activities and resources in the context of physical education, including planning, organizing, implementing, and evaluating. He is very interested in research that focuses on various things, ranging from classroom management, curriculum, to teacher development and physical education programs. He is also active in sports organizations. (email: bayuinsanistyo@unib.ac.id).



Dian Pujianto is a lecturer in physical education, FKIP, Bengkulu University. He actively writes articles on physical education research covering various aspects of physical activity, sports, and health. The broad scope includes games and sports, development activities, gymnastics, rhythmic, water activities, outdoor education, and health. (email: dianpujianto@unib.ac.id).



Ali Radhi Abdul Hussein is affiliated with the University of Babylon, Al Hillah, Iraq, specializing in Education, Physical Education, and Sport Science. He currently works at the General Directorate of Education in Najaf under Iraq's Ministry of Education, contributing to teaching and curriculum development. (email: allitufaly1@gmail.com).