



A Correlation Study Between Physical Literacy and Sport Values in Junior High School In Bandung City

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Abstract

Physical literacy provides a broad framework that combines physical, psychological, social, and cognitive abilities to lead an active and healthy life. This study aimed to analyze the relationship between physical literacy and sports values among junior high school students in Bandung City. The study involved 111 respondents, consisting of 63 females and 48 males. Using PPLI and YSVQ-2 instruments, the data were analyzed using Spearman's s-rho test. Results showed a positive correlation of $r=0.469$ with a significance of $0.001 < 0.05$ between physical literacy and sports values, indicating a 46.9% relationship. The experience of movement and physical activity provides an authentic context for students to internalize sports values. The findings of this study revealed that physical literacy plays a vital role in improving health, building motivation, and applying values such as moral values, competence, and status. Based on these results, this study recommends the development of an integrated intervention program that incorporates both aspects to support students' optimal development.

How to Cite

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INTRODUCTION

In Indonesia, participation in physical activity sports among students is still an issue that needs attention, especially in the context of developing sports values. Currently, the concept of physical literacy is increasingly recognized globally as an essential element that encourages active engagement in physical activity throughout life. Physical literacy is a new idea that is developing in Indonesia. It is one of the goals that must be realized in physical activity both at school, at home, and in the community environment (Suntoda et al., 2021). Recently, physical literacy has attracted significant global attention (Carl et al., 2023) and has become a mainstream view in the fields of sport, health, and education (Essiet et al., 2022), especially in the realm of physical education (Zhang et al., 2022).

Physical literacy provides a broad framework that combines physical, psychological, social, and cognitive abilities to lead an active and healthy life (Chen, 2015). The scope of physical literacy in students not only includes physical ability but also includes desire, confidence, and knowledge and understanding of physical activity (Ryom et al., 2022). Through this framework, it is possible to comprehensively evaluate movement related to physical activity, motor skills, and students' social and emotional learning processes (Cairney et al., 2019). Those with physical literacy will move better and will be responsive to every aspect of their physical environment so they can anticipate what is needed or what might happen (Friskawati & Stephani, 2021). Therefore, understanding physical development in adolescents is a top priority in education.

Based on global data, 81% of adolescents aged 11-17 years do not meet the WHO recommendation to do at least 60 minutes of moderate to high-intensity physical activity every day (Guthold et al., 2020). In Asia, the physical literacy rate in adolescents reached 89% for females and 85% for males (WHO, 2020). This problem is getting worse along with the increase in screen time, where 60-80% of adolescents spend more than 2 hours per day doing screen-based activities (Thomas et al., 2020). A longitudinal study showed a 37% decrease in physical activity during the transition from children to adolescents (Farooq et al., 2020). This is associated with increased use of electronic devices, with adolescents spending an average of 7.2 hours per day on screen-based sedentary activities (Strain et al., 2024). This concern arises because data shows that physical activity participation among adolescents continues to decline significantly,

which is due to an increase in sedentary lifestyles that are increasingly widespread in various walks of life (Fakhouri et al., 2014).

Recent research indicates that patterns of low physical activity that begin in adolescence tend to continue into adulthood. These habits have profound long-term implications for individuals' future health and well-being (Lounassalo et al., 2019). Understanding the development of physical literacy has the benefit of not only preparing today's youth to lead healthier lives but also playing an important role in building a foundation of sustainable physical activity behaviors for future generations (Giblin et al., 2014). Recognizing the crucial link between physical education and physical literacy, UNESCO in 2015 issued important recommendations. UNESCO (2015) emphasized that quality physical education should be positioned as a core component of the school curriculum to support the development of physical literacy in schools.

In line with these recommendations, physical literacy has been recognized as an important element in students' physical education (Durden-Myers & Bartle, 2023). Physical education in schools is a key tool in developing physical literacy, as it benefits students' cognitive, psychological, and motor development. Edwards et al. (2017) emphasized that strengthening physical literacy is now one of the main objectives in the education system, given its far-reaching impact on students' health and well-being.

Along with improving physical literacy, sports values play an important role in shaping students' attitudes and behaviors. Recent research suggests that sports values influence students' moral choices (Syarifatunnisa et al., 2025) and contribute to the learning of life skills such as goal-setting and decision-making (Cronin et al., 2018). Although some studies have touched on moral values in youth sports (Yaumulhak et al., 2024), there is a lack of literature investigating the relationship between physical literacy and sports values among students in Indonesia.

This study aimed to evaluate the relationship between physical literacy and sports values among Junior High School Students in Bandung City. Understanding the relationship between these two aspects is expected to provide insights for the development of effective physical education programs that improve students' physical literacy and sports values. The results of this study can contribute to the creation of appropriate strategies to shape students who not only have good physical literacy but also internalize sports values in their lives.

METHOD

This research uses a quantitative approach with a correlational survey method to identify and analyze the relationship between physical literacy and sports values. Through this approach, researchers can explore the relationship between these two variables. In its implementation, this research applies a simple correlational design, which focuses on collecting data to determine whether there is a relationship between two variables. The sampling technique used was convenience sampling, namely a sample selection method based on availability and ease of access to research subjects (Fraenkel et al., 2022).

Data collection was carried out through distributing questionnaires with a Likert scale to measure research variables quantitatively. This process involved the school and the physical education teacher, which allowed the distribution of questionnaires directly to the respondents. Descriptive data analysis was used to describe the average score and percentage of each research variable. Meanwhile, the Rank Spearsman's-rho test was used to analyze whether there was a relationship between physical literacy and sports values. Rank Spearsman's-rho test was used because the data had a significant value <0.05 , so the data was not normally distributed. All statistical analyses were conducted using SPSS version 29 software.

This study involved junior high school students in Bandung City. The total sample was 111 students, consisting of 48 male students and 63 female students. The age range is 12-15, and has given consent through informed consent has been distributed to respondents to participate in this study.

This research instrument used to measure the level of physical literacy is adopted from the "Journal of Exercise Science & Fitness", namely the Perceived Physical Literacy Instrument (PPLI), which is an instrument that has previously been tested for validity and reliability. The results of the correlation analysis between items on this instrument showed coefficient values ranging from 0.48 to 0.66. This finding shows significant consistency with the results of previous studies, so this instrument has adequate reliability. Based on this stability, the PPLI proved to be a valid instrument for measuring self-perceptions of physical literacy in both physical education teachers and adolescent populations, providing a strong scientific foundation for research and evaluation in this area (Sum et al., 2018).

The Perceived Physical Literacy Instrument (PPLI) was developed to measure perceived

physical literacy comprehensively. It includes three main dimensions: knowledge and understanding, self-expression and communication with others, sense of self and self-confidence. Nine question items are scored using a Likert scale of (1) strongly disagree to (5) strongly agree. Whitehead (2019), in his book, supports the use of PPLI because it covers holistic aspects of physical literacy, can be adapted in various cultural contexts, and is suitable for measurement in adolescents.

In addition, this study also used a sports values instrument, the YSVQ-2. The Youth Sport Values Questionnaire-2 (YSVQ-2) is an instrument to measure sports values in adolescents, such as moral values, competence values, and status values developed by Lee et al., (2013). This instrument consists of 13 questions grouped into three primary subscales. The moral subscale refers to the principles and standards that guide individuals in making ethical decisions in sports. The competence subscale emphasizes the importance of skill development, achievement, and self-improvement through effort and learning in sports. Meanwhile, the status subscale is related to recognition, prestige, and social position in the world of sports (Lee et al., 2013). This questionnaire was administered on a scale ranging from (-1) the opposite of what I believe, to (5) extremely important to me. The YSVQ-2 has been validated and shown to have a high level of reliability, with Cronbach's alpha values consistently exceeding 0.80 in previous studies (Lee et al., 2013). According to Maksum (2018), the instrument is relevant for the Indonesian context because it is aligned with the character education values in the national curriculum, can be adapted to Indonesian socio-culture, and is easily understood by junior high school students.

RESULTS AND DISCUSSION

Table 1. Characteristics of research respondents

Characteristics	frequency	%
Gender		
Man	48	43,2
Woman	63	56,8
Total	111	100
Age		
12 years old	10	9
13 years old	57	51,4
14 years old	39	35,1
15 years old	5	4,5
Total	111	100

Based on **Table 1**, it shows that the gender of respondents is dominated by women as many as 63 (56.8%). From an age perspective, the majority of respondents are 13 years old, with a total of 57 people (51.4%).

Next, we used the Rank Spearsman' s-rho test to determine whether there is a relationship between the physical literacy variables and sports values. The results of the correlation value test calculation show the number $r = 0.469$ with a significance of $0.001 < 0.05$. The coefficient value of 0.469 ($(0.469 \times 100) = 46.9\%$), meaning that the level of correlation or relationship produced is included in the moderate criteria (Schober & Schwarte, 2018). The positive value in r (coefficient) means that if physical literacy increases, sports values also increase and vice versa.

Whitehead (2019) explained that when students develop their competencies, they will simultaneously build an understanding of values such as cooperation, sportsmanship, and dedication. Kirk et al. (2018) reinforced this by stating that experiences of movement and physical activity provide an authentic context for students to internalize sporting values. Physical literacy supports character building through the development of self-confidence and intrinsic motivation, where sports values are naturally formed when students face physical challenges and interact with peers (Durden-Myers, E. J., & Whitehead, 2020).

Research shows that children who are active in sports are able to maintain their weight well compared to children who have a sedentary lifestyle (Kholis et al., 2025). Therefore, children need to understand physical literacy. Barnett et al. (2016) showed that a teaching approach that considers physical literacy was successful in improving fundamental motor skills and self-confidence for learners.

A longitudinal study conducted by Edwards (2022), confirmed that learners with higher physical literacy would tend to demonstrate stronger sporting values over time. This suggests that physical literacy is not just an understanding of physical activity but also contributes to character building and positive attitudes towards exercise. This finding is in line with Roetert & Jeffries (2014) research, which asserts that physical education not only helps students develop motor skills but also strengthens the values of sportsmanship, discipline, and cooperation through direct experience in structured physical activities.

In addition, organized sports programs are proven to provide extensive benefits for adolescent prosocial development. According to Malete et al. (2022), involvement in sports can contribute

to improved academic achievement, teamwork, leadership, and goal-setting skills. This is due to the structure of sports that teach responsibility, commitment, and perseverance in achieving set targets. Bruner et al. (2023) added that participation in sports not only improves physical skills but also encourages positive character development in young people, especially in terms of self-confidence and emotional management. Furthermore, Faigenbaum & Rebullido (2018) emphasized that adolescents with good literacy levels tend to have a more precise orientation to action and are able to set recommended daily goals for health and fitness. This suggests that individuals who have a strong understanding of the importance of physical activity are more likely to adopt a consistently healthy lifestyle (Owen, et al., 2010; Rhodes et al., 2017; Tremblay et al., 2018).

Öztürk et al. (2023) elaborated that physical literacy that includes physical, social, cognitive, and affective aspects is associated with better health outcomes, including cardiovascular fitness, muscle strength, and motor skills. Friskawati et al. (2023) promoted physical literacy as an idea that can bring changes in physical education, sports, and health. Physical literacy is an important component in the development of sports in education, recreation, health, and even elite sports as well.

Physical education can improve cognitive functioning, social well-being, and self-esteem and increase opportunities for academic and social success (Kalajas-Tilga et al., 2020). Treadwell (2013) emphasizes the importance of physical education programs in promoting enjoyable experiences and helping students improve their physical abilities and self-confidence. They also meet the psychological needs of students by increasing self-motivation (Washburn et al., 2016). Bailey (2021) highlights that movement experiences in a social context help develop not only physical skills but also values of sportsmanship and cooperation. Moral values such as honesty, fair play, and sports ethics are formed through active participation in sports activities.

The purpose of physical education is to organize it in a planned and systematic manner through physical activity to develop all aspects of students, both affective, cognitive, and psychomotor (Anwar, 2020). Achieving comprehensive physical education goals requires supportive policies, appropriate learning strategies, and a sustainable curriculum aligned with local and national standards (Fisette, JLW, & Wuest, 2018). This knowledge is essential for physical education teachers in carrying out their teaching duties

(Kusuma et al., 2024), especially in the context of developing physical literacy policies in the fields of education, recreation, and sports in Indonesia.

In the context of implementation in schools, physical education teachers have a central role in ensuring that the learning process not only focuses on physical skills but also on strengthening students' physical literacy. On the other hand, schools, as educational institutions, have a responsibility to create an environment that supports the improvement of student's physical literacy. The provision of adequate sports facilities, active recess policies, and the integration of physical activity into various subjects can increase students' participation in daily physical activity (Erwin et al., 2013). In addition, collaboration between teachers, education personnel, and parents in building an active culture at school can have a positive impact on students' healthy lifestyles (Webster et al., 2015).

A further implication for teachers and schools is the importance of continuous evaluation of the effectiveness of physical education and physical literacy programs implemented. The use of competency-based assessments, such as the Physical Literacy Assessment for Youth (PLAY) or Fitness Gram, can assist teachers in identifying student progress and tailoring more effective learning strategies (Tremblay et al., 2018). Thus, an evidence-based approach can ensure that the holistic goals of physical education are achieved and have a lasting impact on students' health and well-being.

Although this research shows a significant relationship between physical literacy and sports values, several limitations need to be noted. One of them is the use of a correlational approach, which can only describe the relationship between two variables without being able to identify cause-and-effect relationships. Therefore, further research is needed with a longitudinal design and covering a wider and more diverse sample so that the findings obtained are stronger and can be applied more widely.

CONCLUSION

The results of this study indicate that there is a significant relationship between physical literacy and sports values in adolescents, with a level of correlation in the moderate category. The higher a person's physical literacy level, the stronger the sports values they internalize. Physical literacy includes three main dimensions, namely self-knowledge, knowledge and understanding, and communication with self. These three aspects

form the basis for a person to understand the importance of physical activity and be motivated to exercise. When people have good physical literacy, they are not only more confident in physical activity but also better understand the benefits of exercise for their health and life. Active participation in sports can encourage the development of moral values such as cooperation, sportsmanship, discipline, and responsibility.

Quality physical education is a significant factor in developing physical literacy and sports values. Therefore, an integrated intervention program is needed to improve both aspects. Physical education teachers play an important role in creating a learning atmosphere that supports physical activity so that physical education not only improves physical fitness but also shapes the character and moral values of the younger generation.

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