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The Relationship Between Teacher's Interpersonal Behaviour and Student Engagement and Sport Values in Physical Education

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Abstract

The meaningfulness of the learning process is reflected in how teachers apply strategies that fully support students' potential (student-centered) over the long term, both in written and verbal forms. This study aims to analyze the correlation between teachers' interpersonal teaching behavior, students' active learning engagement, and sport values among students at SMP Negeri 66 Bandung. The research adopts the Self-Determination Theory (SDT) framework to explore students' perceptions of teachers' interpersonal teaching behavior. The sample consisted of 100 students aged 12–15. Data were collected through surveys using the Multi-Dimensional Perceived Autonomy Support Scale for Physical Education (MD-PASS-PE), Youth Sport Values Questionnaire-2 (YSQV-2), and the Engagement Scale (ES) in Physical Education. The findings indicate: no significant correlation between interpersonal teaching behavior and sport values (significance value = 0.066; correlation = 0.184). However, a positive contribution was found between interpersonal teaching behavior and student engagement (correlation = 0.409; significance < 0.001), and between student engagement and sport values (correlation = 0.507; significance < 0.001). These results suggest a significant link between interpersonal teaching behavior and student engagement, and between student engagement and sport values. The implication is that Physical Education teachers are encouraged to continuously innovate in implementing strategic learning approaches to create meaningful educational experiences.

Keywords: engagement; interpersonal behavior; physical education; values.

Introduction

In recent years, Physical Education (PE) has undergone a significant transformation from a space focused solely on physical fitness to a holistic learning environment that promotes personal growth, emotional resilience, and the development of moral and social values. PE is no longer confined to motor skill acquisition but has become a student-centered platform designed to provide meaningful experiences that foster overall development (Beni et al., 2021; Hooper et al., 2020). Within this context, the teacher's role is central. When learning environments are structured to empower student voice, support autonomy, and foster engagement, students are more likely to find relevance and motivation in their experiences.

An effective PE environment requires a collective commitment from all components of the school, including a shared vision between teachers and principals to create inclusive, motivating, and supportive learning spaces (Jarl et al., 2021). Teachers act not only as facilitators but also as catalysts who stimulate students' curiosity and willingness to learn. Encouraging students to think critically, engage in dialogue, and reflect on their actions helps deepen their learning and develop lifelong skills (Rone et al., 2023).

A high-quality PE experience also meets students' academic and social needs, influencing their attitudes, habits, and learning behaviors (Saro et al., 2022). Central to this process is the quality of interpersonal interactions between teachers and students. According to Self-Determination Theory (SDT), teachers' interpersonal styles can be categorized as either autonomy-supportive offering choice, acknowledging students' perspectives, and providing meaningful rationales or controlling where students are pressured to conform to rules with little regard for their individual needs or interests (Ryan et al., 2021). These interpersonal approaches shape the emotional and motivational climate of PE classes.

However, while existing studies have explored the benefits of autonomy-supportive teaching, much of the research remains segmented, focusing on physical or motivational outcomes in isolation. There remains a research gap in understanding how teachers' interpersonal styles simultaneously influence both student engagement and the development of moral values in Physical Education.

Moreover, limited research has examined how students themselves perceive teacher interactions and how these experiences influence their moral reasoning and behavior in the context of PE. Yet, student perceptions are vital in evaluating the true impact of pedagogical approaches.

This study aims to explore the relationship between teachers' interpersonal teaching styles, student engagement, and the development of sport-related moral values in Physical Education, as perceived by students. By doing so, it seeks to contribute new insights into how pedagogical strategies in PE can be optimized to support both educational and ethical growth (Jammu et al., 2021; Toshboyeva, 2021).

Methods

Research Design

This study applies Self-Determination Theory (SDT) to analyze teachers' interpersonal teaching behaviors from the students' perspective. SDT is a psychological theory that evaluates how human motivation can drive personal development based on individual personality. SDT has provided a foundational framework for the development of various theories, particularly in the fields of education, health, and sports (Richard M. Ryan, 2023). This study has been conducted in accordance with the STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) checklist for cohort studies.

Participants

The research sample was selected based on predetermined criteria. Participants were drawn from SMP Negeri 66 Bandung, consisting of 100 students (44 male and 56 female) from four randomly selected classes, aged between 12 and 15 years.

All data were collected during PE classes. The questionnaire was administered in all four classes, and students were asked to respond as honestly as possible. They were encouraged to ask questions if they had difficulty understanding any item.

To ensure independent responses, students were spaced apart to avoid seeing each other's answers. They were also informed that their teachers would not have access to their responses. Students required approximately 30 minutes to complete the questionnaire.

Measurement

Three instruments were used to assess the variables in this study:

1. Teacher's Interpersonal Behavior (Independent Variable): Measured using the Multi-Dimensional Perceived Autonomy Support Scale for Physical Education (MD-PASS-PE)

(Tilga et al., 2017). This questionnaire contains 15 items with a three-factor model:

- Cognitive Autonomy Support (e.g., "My PE teacher understands my learning needs"),
- Procedural Autonomy Support (e.g., "My PE teacher involves students in finding solutions"),
- Organizational Autonomy Support (e.g., "My PE teacher allows me to choose sports equipment").
- Items are rated on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree).

2. Student Engagement (Dependent Variable): Measured using the Engagement Scale (ES) in Physical Education, developed by Hoa et al (2021), consisting of 19 items with a three-factor model:
   - Intellectual Engagement,
   - Cognitive Engagement,
   - Academic Engagement.

   Responses are rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree).

   Reliability testing using Cronbach's Alpha showed values between 0.716–0.758, indicating good internal consistency.
3. Sport Values (Dependent Variable): Measured using the Youth Sport Values Questionnaire-2 (YSQV-2) (Martin J. Lee et al., 2008), containing 13 items rated on a 7-point scale ranging from -1 (opposite of what I believe) to 5 (extremely important to me).

The instrument's reliability and validity were confirmed using Confirmatory Factor Analysis (CFA).

Data Analysis

The data were first tested for normality using the Kolmogorov-Smirnov and Shapiro-Wilk tests. A significance value (Sig.) > 0.05 indicated that the data were normally distributed.

After confirming normality, the researchers proceeded with Pearson correlation analysis to test the relationships between variables.

Results

This study established sample criteria within the age range of 12 to 15 years. Therefore, the researchers presented the age and gender distribution of the sample involved in this study to provide a clear profile of the participants contributing to the research. The average scores for each instrument are presented in Table 1.

Based on Table 2, a total of 100 participants took part in this study, consisting of 44 male and 56 female students. In accordance with the specific criteria of the MD-PASS-PE and YSQV-2 instruments, the age range of 12 to 15 years was highly appropriate for application in this research.

As an initial step, the researchers conducted a normality test for each variable. A significance value (Sig) greater than 0.05 is required to indicate that the data are normally distributed. The analysis was carried out using the Kolmogorov-Smirnov and Shapiro-Wilk normality tests. The results of this analysis are presented in Table 3.

The results of the Kolmogorov-Smirnov test showed a significance value of 0.200 > 0.05 for the YSQV-2 instrument, 0.200 > 0.05 for the MD-PASS-PE instrument, and 0.097 for the Engagement Scale. The analysis of all three research variables indicated that the data were normally distributed according to the Kolmogorov-Smirnov normality test. Therefore, the next step taken by the researchers was to perform a correlation analysis using the Pearson correlation test. The resulting correlation data are presented in Table 4.

The YSQV-2 instrument reflects the sport values obtained by students during Physical Education learning. The MD-PASS-PE instrument measures students' perceptions of their teachers' interpersonal teaching methods. Meanwhile, the Engagement Scale (ES) is used to assess students' active participation in Physical Education classes.

Based on Table 4, the Pearson correlation analysis showed that there was no correlation between students' perceptions of their teachers' interpersonal teaching behavior and their sport values, as indicated by a significance value of 0.066 > 0.05.

However, positive correlations were found in the relationship between sport values and students' active learning engagement, as well as between students' perceptions of teachers' interpersonal teaching and their learning engagement. The significance value for the correlation between sport values and student engagement was 0.01 < 0.05, indicating a significant relationship. Similarly, the correlation between students' perceptions of teachers' interpersonal teaching and their active learning engagement also showed a significant result, with a significance value of 0.01 < 0.05.

Discussion

The researchers acknowledged that the teaching methods used by teachers have an impact on students' engagement in Physical Education

learning, and that this engagement, in turn, influences the development of sport values among students. The aim of this study was to analyze the correlation between teachers' interpersonal teaching methods, students' active learning engagement, and sport values among students at SMP Negeri 66 Bandung.

The first finding revealed no significant correlation between students' perceptions of their teachers' interpersonal teaching behavior and the sport values they acquired. This is evidenced by a significance value of 0.066, which is greater than 0.05. This result may be attributed to
the lack of a strong underlying condition linking students' evaluation of their teachers' teaching abilities with the sport values developed through Physical Education activities. The absence of correlation may also be due to the nature of the MD-PASS-PE instrument, which represents students' evaluation of teachers' teaching methods and primarily focuses on the teacher as the main subject, rather than on the internalization of students' sport values.

The second finding showed a positive correlation between sport values and students' active learning engagement, with a significance value of 0.01, which is less than 0.05. This indicates a statistically significant relationship between sport values and student participation in learning activities. Sports that promote cultural values have always been a strong social force (Fakhriddin Khurramovich, 2022). Individuals who have participated in school sports believe that sports help them develop confidence in their strengths and abilities, and learn how to use them effectively. Sports also teach individuals to make reasonable sacrifices to achieve goals. A high-quality Physical Education program enhances students' physical, mental, and socio-emotional development, and integrates health education and fitness assessment to help children understand, improve, and/or maintain their physical well-being as part of successful socialization (Jammu et al., 2021).

The third finding also indicated a positive correlation between students' perceptions of teachers' interpersonal teaching behavior and their active learning engagement, with a significance value of 0.01 < 0.05. This suggests a significant relationship between teaching competence and student engagement in learning. According to Sarumaha (2021), the learning

Table 1
Average Results of YSQV-2, MD-PASS-PE, and ES

Instrument	Average Score
YSQV-2	31
MD-PASS-PE	69
ES	70

Table 2
Frequency Distribution of Participants by Gender and Age

Category	Subcategory	Frequency	%
Gender	Male	44	44.0
	Female	56	56.0
	Total	100	100.0
Age (years)	12	2	2.0
	13	44	44.0
	14	42	42.0
	15	12	12.0
	Total	100	100.0

Table 3
Normality Test Results Using Kolmogorov–Smirnov Test

Variable	Test	Statistic	df	p-value
YSQV	Kolmogorov–Smirnov	.045	100	.200⁺
MD-PASS-PE	Kolmogorov–Smirnov	.066	100	.200⁺
ES	Kolmogorov–Smirnov	.082	100	.097

Table 4
Pearson Correlation Test

Variable	1	2	3
YSQV-2	–	.184	.409**
MDPASSPE	.184	–	.507**
ES	.409**	.507**	–

process is facilitated and supported by the teacher. This means that the teacher holds full responsibility for guiding the students' learning journey, negotiating their education, and determining what and how they will learn. A good teacher, as stated by Utami & Hasanah (2020), is one who can guide their students to the highest level of learning, helping them grow and progress, become enlightened with age, and continue their lifelong learning journey. The correlation data also suggest that a positive correlation reflects a balanced pattern of improvement, where an increase in teaching quality is accompanied by a corresponding increase in student engagement.

Conclusionss

The results of the study indicate a correlation between Physical Education teachers' interpersonal teaching approaches and students' active learning engagement. Furthermore, students' active engagement was found to have a positive correlation with sport values among students at SMP Negeri 66 Bandung. One limitation of this study lies in the relatively small and limited participant sample. It is hoped that future research can expand upon this by involving a larger and more diverse sample population.

Physical Education teachers are encouraged to continuously innovate and enhance their instructional strategies in order to create learning experiences that are both effective and meaningful—especially in the context of Physical Education content.

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