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RESEARCH ARTICLE

INFLUENCE OF PERCEIVED TEACHING PRACTICES AND STUDENT-TEACHER RELATIONSHIP ON ACADEMIC PERFORMANCE IN PHYSICAL EDUCATION AMONG SENIOR HIGH SCHOOL STUDENTS

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ABSTRACT

Low academic performance is disturbing. The significance of perceived teaching practices and student-teacher relationship as determinants of academic performance was determined. Using diagnostic research design, involving 300 senior high school students selected through proportionate random sampling, and analyzing data using multiple linear regression analysis, the result showed that the perceived teaching practices significantly affect academic performance, while student-teacher relationship do not; partially supporting Constructivist Theory. Future research may explore additional factors influencing academic performance, while schools enhance teaching through professional development and reflective practices.

Keywords: Influence of perceived teaching practices, student-teacher relationship, academic performance, physical education, senior high school students

INTRODUCTION

The Problem and Its Scope

Low academic performance in physical education has become recognized globally as a significant educational concern (Latino et al., 2023). Despite well-documented benefits of physical activity for cognitive function and school outcomes, the World Health Organization reported that 81% of adolescents globally fail to meet recommended physical activity levels, a factor implicated in academic challenges (He et al., 2025). At the same time, pressure to prioritize core subjects has reduced emphasis on physical education, worsening performance gaps and undervaluing its cognitive and psychosocial benefits (James et al., 2023).

In the United States, systemic reduction in physical education time to prioritize core academic subjects has led to declining participation and poorer academic outcomes in PE classes (James et al., 2023). In China, national policy responses to rising health concerns reflect recognition of longstanding issues in students' physical activity and performance, prompting reforms to elevate PE's status amid evidence of weak

engagement and academic results in physical activity subjects (Reuters, 2025). Likewise, in Uganda, research found that a strong focus on academic achievement often limits structured physical activity opportunities, contributing to suboptimal academic performance in PE among secondary students (Pauline et al., 2023). In the Philippines, a study in Northern Samar found that many senior high school learners exhibit low proficiency or disengagement in PE, which educators attribute to motivational challenges and inconsistent teaching practices that affect students' academic achievement in the subject (Dato, 2025).

Persistent low academic performance in PE negatively affects students' physical health, cognitive function, psychosocial well-being, and overall academic motivation, increasing the risk of stress, anxiety, and low self-esteem (He et al., 2025); hence, the study examines the issue

SIGNIFICANCE OF THE STUDY

This study investigated the influence of perceived teaching practices and student–teacher relationships on academic performance. In this study. In particular, it addressed the following objectives:

1. To determine the levels of perceived teaching practices in terms of care, confer, captivate, clarify, consolidate, challenge, and classroom management; student-teacher relationship in terms of satisfaction, conflict (barriers to learning & adjustment challenges), instrumental help; and academic performance in terms of individual performance and group performance among senior high school students in physical education.
2. To determine the significance of the relationships among perceived teaching practices, the student-teacher relationship, and students' academic performance in physical education.
3. To determine the significance of the individual and combined influence of perceived teaching practices and the student-teacher relationship on students' academic performance in physical education.

HYPOTHESES

This study tested the null hypotheses using a 0.05 level of significance.

1. H01: The correlation between perceived teaching practices and the academic performance of students in physical education is not significant.
2. H02: The correlation of the student-teacher relationship and the academic performance of students in physical education is not significant.
3. H03: The combined degree of influence of perceived teaching practices and student-teacher relationship on academic performance is not significant.

THEORETICAL/CONCEPTUAL FRAMEWORK

This study draws on the Constructivist Theory, developed by Jean Piaget in 1980. Constructivist theory posits that learners construct their own understanding and knowledge of the world through experiences and reflecting on those experiences. According to the constructivist theory, learning occurs when individuals interact with their environment, encounter new information, and adjust their existing mental structures (Piaget, 1980).

In this study, the student–teacher relationship variable, indicated by satisfaction, conflict (barriers to learning and adjustment challenges), and instrumental help (Ang, 2020), represents students' experiences in interacting with their environment. Furthermore, the perceived teaching practices variable, indicated by care, confer, captivate, clarify, consolidate, challenge, and classroom management (Kuhfeld, 2017), reflects students' interpretation of newly encountered information. Additionally, the academic performance variable, as indicated by individual and group performance (Jabir, 2022), reflects students' knowledge and understanding as they modify their existing mental structures, as explained by the theory. The alignment between the study variables and the theory's core assumptions demonstrates that the study is firmly grounded in the theory.

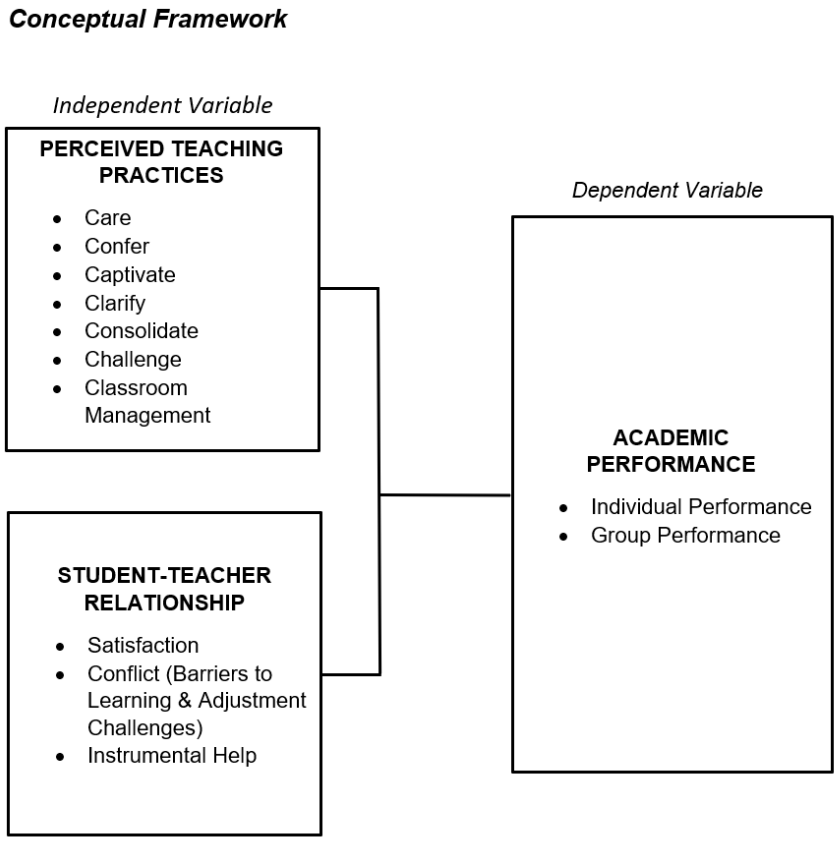


Figure 1. Conceptual Framework of the Study

METHODOLOGY

This chapter discusses the research design, research locale, sample and sampling technique, data collection process, data analysis, and ethical considerations.

Research Design

This Study employs a diagnostic research design. Diagnostic research design is an approach that identifies and explains the underlying causes of a problem by analyzing relationships among variables (Vidani et al., 2024). Researchers apply this design when a problem is already known, but its causes are unclear, and it helps provide a deeper, evidence-based understanding to develop targeted solutions (Lui et al., 2024). Its main advantage is that it supports accurate decision-making by focusing on root causes rather than surface-level observations (Medina et al., 2024).

Locale of the Study

The study took place in three public secondary schools offering Senior High School programs in District 4 of Glan, Sarangani Province, Region XII. Within the division, there are approximately thirty-four (34) schools, of which ten (10) implement the Senior High School program, most of which have been operating for more than five years. The study selects these schools because Senior High School students generally demonstrate higher levels of cognitive and emotional maturity, enabling them to provide more accurate and reflective perceptions of Physical Education, student-teacher relationships, and the

effectiveness of PE instructions. Examining these factors is essential in understanding how students' perceptions and student-teacher relationships influence academic performance.

Sample and Sampling Technique

The study involved 300 Senior High School students drawn from a population of 1,365 students enrolled in the three secondary schools in the fourth district of Glan. Respondents were officially enrolled Grade 11 and 12 students from any academic strand during the academic year 2025-2026 and were aged 18 years or older. The Study employed proportionate random sampling, selecting respondents from each stratum in proportion to their population sizes while ensuring equal representation from the three schools (Lee et al., 2025). The researcher determined the sample size using the RAOsoft calculator at a 95% confidence level and a ±5 margin of error.

Data Gathering Technique

The researcher used a survey questionnaire to gather data. This quantitative data-gathering method collects information from the respondents through a set of structured questions. These questions are typically closed-ended (e.g., multiple-choice, Likert scale, yes/no), allowing the researcher to quantify responses and analyze them statistically (Koo et al., 2025). The study utilized three adapted and modified questionnaires: the Tripod Student Survey Questionnaire developed by Megan Kuhfeld (2017), which contains 26 items with a Cronbach's alpha of 0.84; the Teacher-Student Relationship Inventory (S-TSRI) developed by Ang (2020), which includes 16 items with composite reliability coefficients of 0.90 (Satisfaction), 0.86 (Instrumental Help), and 0.85 (Conflict); and the Students' Academic Scale (SAPS) for Holistic Assessment developed by Jabir and Farooq (2022), which consists of 24 items with a Cronbach's alpha of 0.75.

Data Analysis Technique

This study applies three data analysis techniques to examine and interpret the data: descriptive, correlation, and regression analyses. Descriptive analysis summarizes, organizes, and describes the main characteristics of a data set (Harbison et al., 2024). Correlation analysis measures the strength and direction of the relationship between two or more variables without manipulating them (Suherman et al., 2025). Regression analysis estimates and quantifies the relationship between a dependent variable and one or more independent (predictor) variables (Roustaei et al., 2024).

The study presents a matrix showing the scale, descriptive levels and corresponding interpretations for each variable. This measure describes the levels of perceived teaching practices, student-teacher relationships and academic performance.

Scale	Level	Perceived Teaching Practices	Student-Teacher Relationship	Academic Performance
3.27-4.00	Very High	Very Good	Very good	Very good
2.52-3.26	High	Good	Good	Good
1.76-2.51	Low	Poor	Poor	Poor
1.00-1.75	Very Low	Very Poor	Very Poor	Very Poor

To interpret the standard deviation, this Study applies the percentage standard proposed by Sergent et al., (2024):

% of Scores Covered	Interpretation Basis
≈ 68%	Scores are highly consistent
≈ 95%	Scores show moderate dispersion
≈ 99.7%	Scores show high dispersion

For the interpretation scale of R-value, the following scheme, as proposed by Guilford (1956), was used

Computed r	**Descriptive Interpretation**
+/- 1.00	Perfect correlation
Between +/- 0.75 – +/- 0.99	High correlation
Between +/- 0.51 – +/- 0.74	Moderately high correlation
Between +/- 0.31 – +/- 0.50	Moderately low correlation
Between +/- 0.01 – +/- 0.30	Low correlation
0	No correlation

In terms of Scale of Beta (β) Coefficient Strength, the following scheme, as proposed by Cohen (1988) and Hair et al., (2019), was used:

β Value Range	**Strength of Relationship**
±0.00 – ±0.09	Very Weak
±0.10 – ±0.29	Weak
±0.30 – ±0.49	Moderate
±0.50 – ±0.69	Strong
±0.70 and above	Very Strong

Ethical Considerations

This Study followed full ethical research standards in line with the HCDC SMILE (Society for Moral Integrity and Legal Ethics) review guidelines. The researcher secured formal permission from the Department of Education and school principals before distributing consent and assent forms, ensuring voluntary participation, confidentiality, and the right to withdraw. The Study clearly specified the inclusion criteria and protected participants' confidentiality. During data collection, the researcher explained the Study's purpose and procedures to the respondents. The researcher administered the survey face-to-face and provided school supplies and snacks as tokens of appreciation for participation. The researcher also explained the ethical protocol for conducting the Study, ensuring compliance with established ethical standards.

RESULTS

This section presents the results of the study. Specifically, presented are descriptive results, correlation results, regression results, and the summary of findings.

Table 1. Descriptive Table (N=300)

Variables	**(N) Number of Samples**	**SD**	**Mean**	**Descriptive Level**
Perceived Teaching Practices	300	0.412	3.02	High

Care		0.585	3.04	High
Confer		0.581	2.90	High
Captivate		0.496	3.08	High
Clarify		0.521	3.05	High
Consolidate		0.569	3.06	High
Challenge		0.539	3.10	High
Classroom Management		0.516	2.92	High
Student-Teacher Relationship	300	0.393	2.86	High
Satisfaction		0.551	3.10	High
Conflict (Barriers to Learning & Adjustment Challenges)		0.629	2.490	Low
Instrumental Help		0.513	2.98	High
Academic Performance	300	0.470	3.01	High
Individual Performance		0.473	2.97	High
Group Performance		0.532	3.06	High

The table shows that perceived teaching practices have a mean of 3.02, indicating a high level and suggesting that respondents view these practices as effective. All indicators fall within the high category, and the standard deviation of 0.412 reflects highly consistent responses. The student-teacher relationship variable has a mean of 2.86, also indicating a high level and suggesting generally positive relationships. Two of its three indicators fall within the high category, while one falls within the low category. The standard deviation of 0.393 indicates highly consistent responses. Lastly, academic performance has a mean of 3.01, indicating a high level and suggesting good overall performance among respondents. All indicators fall within the high category, and the standard deviation of 0.470 reflects highly consistent responses.

The findings indicate that all three variables, perceived teaching practices, student-teacher relationship, and academic performance, are viewed positively by the respondents. Perceived teaching practices and academic performance are consistently rated high across all indicators, while student-teacher relationships show slightly more variation, with one indicator rated lower. Overall, perceived teaching practices and academic performance appear stronger and more uniformly positive compared to the student-teacher relationship.

Correlation Analysis

Table 2 is the correlation table. It presents the analysis results, specifically examining the relationships among perceived teaching practices, student–teacher relationships, and students' academic performance in physical education among senior high school students. Lastly, it contains the R-value, p-value, decision on hypotheses, and the corresponding interpretation.

Table 2. Correlation Table (N=300)

Independent Variables	Academic Performance of Students in Physical Education			
	r	p-value	Decision on H_o	Interpretation
Perceived Teaching Practices	0.553	.001	Rejected	moderate positive and significant correlation
Student-teacher Relationship	0.149	.008	Rejected	low positive and significant correlation

Table 2 shows that the relationship between perceived teaching practices and academic performance yielded a p-value of less than 0.001, which is below the 0.05 level of significance; therefore, the study rejects the null hypothesis. The result shows a statistically significant, moderate positive correlation between the two variables (R = 0.553). Similarly, the relationship between student-teacher relationship and academic performance yielded a p-value of 0.008, which is below the 0.05 level of significance; therefore, this study rejects the null hypothesis. The results indicate a statistically significant but weak positive correlation between the variables (R = 0.149).

Both perceived teaching practices and the student-teacher relationship are significantly related to academic performance; however, perceived teaching practices show a stronger, moderate positive relationship, while the student-teacher relationship shows only a weaker, low positive relationship.

Regression Results

Table 3 presents the regression result and includes the variables, namely, perceived teaching practices and student-teacher relationship. It also includes the criterion variable, academic performance. It also displays the β coefficients, t-values, p-values, the decisions on the hypotheses, and the corresponding interpretations.

Table 3. Regression Table

Predictors	Academic Performance of Students in Physical Education						
	Unstandardized Coefficients		Standardized Coefficients			Decision on Ho	Interpretation
	B	Std. Error	Beta	t	Sig.		
Constant	1.159	0.196	-	5.897	< .001	-	-
Perceived Teaching Practices	0.639	0.056	0.560	11.383	< .001	Rejected	Positive significant influence
Student-Teacher Relationship	-0.028	0.059	-0.023	-0.465	0.642	Not Rejected	Not Significant

Model Summary
R=.553, R2 = .306, Adjusted R2: 0.301 F(2, 318) = 68.841, p-value = .000
Level of Significance: 0.05

Decision Rule: Reject H_0 if $p<0.05$

Table 3 shows that perceived teaching practices have a standardized coefficient (β) of 0.560. With a p-value of 0.001, which is below the 0.05 level of significance, this study rejects the null hypothesis. The result shows that perceived teaching practices significantly and positively contribute to academic performance (β = 0560). Specifically, each unit increase in perceived teaching practices corresponds to a 0.560 unit increase in academic performance in physical education.

In contrast, the student-teacher relationship does not significantly influence academic performance, as indicated by a p-value of 0.642, which exceeds the 0.05 level of significance; therefore, this study retains the null hypothesis for this variable. The very small standardized coefficient (β = -0.023) and low t-value (-0.465) further indicate that the student-teacher relationship contributes minimally to the model.

Finally, the table reports an R-squared value of 0.306, indicating that the perceived teaching practices and student-teacher relationships together account for 30.6% of the variance in academic performance. The overall model is statistically significant ($p < 0.001$), confirming the combined effect of the variables.

Perceived teaching practices have a significant and positive influence on academic performance, making them a key contributor to student outcomes. In contrast, student-teacher relationships do not show a significant influence and contribute minimally. Overall, while both variables are considered together, the significant impact on academic performance is mainly driven by perceived teaching practices rather than the student-teacher relationships.

Summary of Findings

The results of the statistical analysis demonstrate that:

1. Perceived teaching practices and students' academic performance in physical education show a moderate, significant correlation.
2. The student-teacher relationship and students' academic performance in physical education show a low but significant correlation.
3. Perceived teaching practices and the student-teacher relationship together significantly explain 30.6% of the variance in academic performance in physical education.

DISCUSSIONS

Discussed in this section are the correlation and regression analysis results of the study. The discussions aim to highlight how the study's results support previous findings. Included here as well are the conclusion and recommendations based on the results and discussions.

Influence of Perceived Teaching Practices on Academic Performance

This study found that the perceived teaching practices and academic performance of student in physical education had a moderate positive and significant correlation aligns with the claim of Hong et al., (2024), who found out that the students' perception of teaching quality was directly and positively associated with self-efficacy, interest and academic performance, indicating that students who perceived their teacher as demonstrating high-quality instructional behaviors tend to achieve better academic outcomes. The result of the current study also supports Roy et al., (2024), who asserted a strong positive relationship between teachers' performance, encompassing perceived teaching ability and instructional practices and students' academic outcomes, providing empirical support for the connection between teaching practices and academic performance.

However, the recent finding of this study contradicts the study of Micua et al., (2023), who claimed that, while students had a positive perception of teaching methods, the relationship with academic performance was weak and not strongly predictive, suggesting that positive perception of teaching practices does not necessarily translate into strong academic outcomes.

Influence of Student-Teacher Relationship on Academic Performance

The results revealed a low but statistically positive correlation between student-teacher relationships and academic performance in physical education. This finding supports Göktaş et al., (2022), who reported that different measures of student-teacher relationships produce small positive effects on academic performance, suggesting that these relationships exert a limited influence in certain educational contexts. These findings also support Yu (2023), who emphasized that other interpersonal factors, such as student-peer interactions, may be more strongly associated with academic outcomes than student-teacher relationships.

On the contrary, the findings of this study that the student-teacher relationship and academic performance of students in physical education have a low positive and significant correlation, deny the findings of Torres et al., (2025), who highlighted that the teacher-related factors, including relational aspects, had a weak negative and non-significant correlation with academic performance, indicating that teacher influence may not directly improve student outcomes.

Impact of Perceived Teaching Practices and Student-teacher Relationship as Determinants of Academic Performance

The regression result revealed that perceived teaching practices positively and significantly influence academic performance, while student-teacher relationships do not have a significant direct effect. This result supports Chen et al., (2025), who claimed that perceived teaching quality is strongly associated with academic grades and can mediate the influence of other factors. In contrast, student-teacher relationships affect performance indirectly through students' perception of teaching practices. This finding also aligns with Díaz Santana (2025), who reported that participative and student-centered teaching styles consistently improve academic achievement across subjects. In contrast, the effects of student-teacher relationships tend to vary across contexts.

However, this study finds that the perceived teaching practices significantly and positively influence academic performance, whereas student-teacher relationships do not show a significant direct effect. This result contrasts with Lui (2024), who reported that student-teacher relationships significantly influence academic engagement rather than directly affecting academic achievement.

CONCLUSION

Based on the findings, perceived teaching practices have a significant influence on academic performance in physical education, whereas the student-teacher relationship does not. Nevertheless, both determinants, taken together, significantly explain 30.6% of the variance in academic performance. This conclusion partially supports the theory of constructivism, which posits that learners construct their own understanding and knowledge of the world through experiences and reflecting on those experiences

RECOMMENDATION

Based on the findings, future research should consider additional variables not included in this study to explain the remaining 69.4% of the variance in academic performance. Researchers are encouraged to conduct exploratory studies to identify potential determinants. They may then apply exploratory factor analysis to develop statistical tools based on emerging subthemes, which can serve as measurable indicators. Furthermore, school leaders can strengthen teaching by promoting professional development, implementing feedback mechanisms, and encouraging reflective practices among educators.

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