

# Predictors of Physical Education Teachers' Instructional Leadership and Efficacy

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**Abstract:** The objective of this study is to explore the predictive factors influencing the teaching leadership and efficacy of physical education teachers. Through an in-depth analysis of various aspects including educational leadership, teaching efficacy, and educational experience, we aim to provide guidance for enhancing the teaching quality and educational outcomes of physical education teachers. Employing a quantitative research approach, we conducted a questionnaire survey and statistical analysis to study the key factors affecting the teaching leadership and efficacy of physical education teachers. The study found a significant positive correlation between educational leadership and teaching efficacy, and a close association between physical education experience and teaching efficacy. Educational leadership and teaching experience are important predictive factors influencing the educational efficacy of physical education teachers. Additionally, educational leadership has a significant impact on teaching efficacy under the moderation of educational experience, indicating that educational experience can enhance the positive effect of educational leadership on teaching efficacy. These findings underscore the significance of educational leadership and teaching experience in the educational efficacy of physical education teachers, providing valuable insights for the formulation and practice of physical education policies. Future research could further explore other factors affecting educational leadership and efficacy, and consider broader samples and research designs.

**Keywords:** Physical education, Teaching leadership, Educational efficacy, Educational experience.

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## 1. Introduction

Physical education is an integral component of a holistic education, contributing to the overall development and well-being of students. It plays a crucial role in enhancing physical fitness, promoting a healthy lifestyle, and fostering essential life skills. Within the realm of physical education, teachers are the primary agents responsible for imparting knowledge, instilling discipline, and motivating students to engage in physical activities. The effectiveness of physical education programs greatly hinges upon the instructional leadership and efficacy demonstrated by these educators.

This chapter delineates the problem at hand, delving into the pivotal role of instructional leadership and efficacy in the context of physical education. Additionally, the chapter establishes the research's geographic, educational, and theoretical framework, providing a comprehensive understanding of the environment in which the study operates.

### 1.1. Statement of the Problem

The proficiency and effectiveness of physical education teachers are influenced by various factors, among which instructional leadership and efficacy stand prominent. However, a clear understanding of the predictors and determinants that significantly impact instructional leadership and efficacy within the specific domain of physical education remains insufficiently explored. This research seeks to bridge this gap by identifying and analyzing the factors that predict and influence instructional leadership and efficacy among physical education teachers.

### 1.2. Objective of the Study

The primary objective of this research is to investigate the predictors of instructional leadership and efficacy among physical education teachers. By delving into the intricate

interplay of factors such as experience, educational background, pedagogical approaches, and personal beliefs, this study aims to shed light on the determinants that enhance instructional leadership and efficacy within the context of physical education.

### 1.3. Scope and Limitations

The study primarily focuses on physical education teachers within a specific geographic region, examining their instructional leadership and efficacy. However, it's essential to acknowledge that the findings may have limitations in terms of generalizability due to the geographic scope and the specific characteristics of the sampled population.

### 1.4. Significance of the Study

Understanding the predictors of instructional leadership and efficacy in physical education is crucial for enhancing the quality of teaching and learning in this domain. The findings of this study can provide valuable insights for educational policymakers, school administrators, and teacher training programs, enabling the development of targeted interventions to strengthen instructional leadership and efficacy among physical education educators.

## 2. Related Literature and Conceptual Framework

### 2.1. Introduction

This chapter presents a comprehensive review of the related literature surrounding instructional leadership, teacher efficacy, and their interplay within the domain of physical education. Additionally, it proposes a conceptual framework that integrates key factors affecting instructional leadership and teacher efficacy, laying the foundation for the subsequent discussions and analysis.

## 2.2. Instructional Leadership in Physical Education

Instructional leadership, within the context of physical education, involves the capacity of teachers to guide, motivate, and facilitate meaningful learning experiences for students. It encompasses the effective planning and implementation of the curriculum, fostering a positive learning environment, and utilizing appropriate pedagogical strategies to enhance student engagement and achievement in physical education.

## 2.3. Teacher Efficacy in Physical Education

Teacher efficacy in physical education is defined as a teacher's belief in their ability to positively influence students' learning, behavior, and outcomes within the context of physical education. It encompasses confidence in instructional strategies, classroom management, and the belief that teachers can make a difference in students' physical skills, attitudes, and overall well-being.

## 2.4. Factors Affecting Instructional Leadership and Teacher Efficacy

Several factors influence instructional leadership and teacher efficacy in physical education. These factors include:

**Teaching Experience:** The amount and variety of teaching experience can impact instructional leadership and efficacy, as more experienced teachers often possess a broader range of strategies and confidence in their teaching abilities.

**Professional Development:** Continuous professional development and training opportunities contribute to improved instructional leadership and teacher efficacy by enhancing knowledge, skills, and pedagogical approaches.

**Supportive School Environment:** A school culture that supports collaboration, provides resources, and encourages professional growth positively affects instructional leadership and teacher efficacy.

**Self-Efficacy Beliefs:** Teachers' self-perception of their capabilities, particularly in implementing effective teaching strategies and managing student behavior, significantly influences instructional leadership and teacher efficacy.

## 3. Methodology

### 3.1. Introduction

This chapter outlines the methodology adopted for this research, delineating the research design, participants, data collection procedures, instruments, and data analysis techniques. The methodology is structured to investigate the predictors of instructional leadership and efficacy among physical education teachers, as identified in the conceptual framework.

### 3.2. Research Design

The research adopts a quantitative approach, utilizing surveys to collect data from physical education teachers. A cross-sectional design will be employed to gather information at a specific point in time, providing a snapshot of the participants' instructional leadership, teacher efficacy, and related factors.

### 3.3. Participants

The participants in this study will be physical education teachers from diverse schools within the specified geographic region. A purposive sampling technique will be used to ensure

participants represent a range of experience levels, educational backgrounds, and teaching contexts. Participation will be voluntary, and informed consent will be obtained from all participants.

## 3.4. Data Collection Procedures

### 3.4.1. Instrumentation:

The research will utilize validated self-report questionnaires to assess instructional leadership, teacher efficacy, and relevant influencing factors.

Instructional Leadership will be measured using the "Instructional Leadership Scale for Physical Education" (ILS-PE).

Teacher Efficacy will be assessed using the "Physical Education Teacher Efficacy Scale" (PETES).

Additional questionnaires will gather data on teaching experience, professional development, school environment, and self-efficacy beliefs.

### 3.4.2. Survey Administration:

The surveys will be administered electronically via online platforms, ensuring ease of access and efficient data collection.

Clear instructions will be provided to participants, emphasizing confidentiality and the importance of honest responses.

A designated time frame will be specified for completing the surveys, promoting timely data collection.

## 3.5. Data Analysis Techniques

### 3.5.1. Descriptive Analysis:

Descriptive statistics, including mean, median, standard deviation, and frequency distributions, will summarize the data.

This analysis will provide an overview of instructional leadership, teacher efficacy, and the demographic characteristics of the participants.

### 3.5.2. Inferential Analysis:

Correlation analysis will examine the relationships between instructional leadership, teacher efficacy, and the influencing factors.

Multiple regression analysis will identify the predictors of instructional leadership and teacher efficacy.

## 3.6. Ethical Considerations

### 3.6.1. Informed Consent:

Informed consent will be obtained from all participants, detailing the purpose, procedures, and potential risks or benefits of the study.

### 3.6.2. Confidentiality and Anonymity:

Participants' data will be anonymized and treated with utmost confidentiality to ensure privacy.

## 3.7. Limitations

The limitations of this study include potential response bias, the reliance on self-report measures, and the specific geographic focus, limiting generalizability. Despite these limitations, the research aims to provide valuable insights into the predictors of instructional leadership and efficacy among physical education teachers.

## 3.8. Validity and Reliability

### 3.8.1. Content Validity:

The research instruments used in this study have been

previously validated and established as reliable tools for assessing instructional leadership and teacher efficacy in the context of physical education.

### 3.8.2. Internal Consistency:

Cronbach's alpha coefficient will be calculated for each instrument to ensure the internal consistency and reliability of the collected data.

### 3.9. Data Collection Timeline

Preparatory Phase: Finalization of research instruments, obtaining ethical approvals, and organizing logistical requirements (Week 1-2).

Participant Recruitment and Survey Distribution: Sending out invitations, distributing surveys, and collecting responses (Week 3-6).

Data Analysis: Analyzing the collected data using appropriate statistical techniques (Week 7-9).

Results Compilation and Interpretation: Summarizing findings and drawing conclusions (Week 10-12).

### 3.10. Summary

This chapter presented the methodology employed for the study, encompassing the research design, participant selection, data collection procedures, instruments used, data analysis techniques, ethical considerations, and limitations. The rigorous methodology adopted aims to uncover the predictors of instructional leadership and efficacy among physical education teachers, providing valuable insights for enhancing educational practices in the field of physical education.

## 4. Presentation, Analysis and Interpretation of Data

This chapter presents the data analysis and interpretation of the findings from the given questionnaire to the chosen respondents involved in the study.

The study assessed the instructional leadership practices of the Physical Education teachers and their relationship with the self-efficacy of Higher Education institutions as evaluated by the students.

The following results show the mean distribution of Physical Education students' profile variables on sex, age, year level, and area of specialization.

### 4.1. Profile of the Students

#### 4.1.1. Sex

Presented in Table 1 is the profile of the respondents in terms of sex. The results show that majority of the respondents were males, as indicated by the percentage distribution of 642 or 62%; conversely, the remaining 390 or 38 % of the respondents were female. This finding suggests that male students dominate the students who are taking Physical Education courses over their female counterparts.

The more significant number of male students being inclined to take the Physical Education program could be attributed to China's Education Ministry (2018) plans that urge to cultivate masculinity in boys students at the early age of their formative education. The initiative involves hiring and training more gym teachers, testing students more comprehensively in physical education, making health education compulsory, and supporting research into issues like the influence of the phenomenon of internet celebrities on adolescents' values.

**Table 1.** Distribution of Respondents by Sex

Sex	Frequency ( f )	Percentage ( % )
Male	642	62
Female	390	38
Total	1032	100

The dominance of male students over their female counterparts implies that teachers should be aware of the diversity of sexes and gender differences in their classrooms. This means that equal learning opportunities and experience should be provided to both sexes. From the findings revealed, athletic administrators and school heads can recognize the challenges the PE female students face over their male counterparts and consider strategies to support them better. The findings imply that future studies on related topics need to address how the focus of the interaction (e.g., training, competition, administration) influences how coaches are perceived and explore the potential impact of gender-association of specific sports and roles coaches.

#### 4.1.2. Age

Table 2 displays the distribution of the students' age ranges. Profile on age has been considerably taken as one variable that may affect the students' performance in any field of Physical Education and sports.

**Table 2.** Distribution of Respondents by Age

Age	Frequency ( f )	Percentage ( % )
18-20 years old	504	48.8%
21-23 years old	358	34.7%
24-26 years old	129	12.5%
Others	41	4.0%
Total	1032	100%

The majority of respondents are between the ages of 18 and 20, or 48.8%, while those between the ages of 21 and 23 account for 34.7% of the entire sample population. Additionally, 4.0% of respondents are older than 26 years old.

This result could be attributed to the fact that most of the college entrants who are enrolled in the tertiary degree programs at public colleges and universities in China are beginning 18 years old and above. As they stay at the university, students are introduced to various guidance programs and other services where they can start forming and building their career paths.

Given that most of the students are 18 years old, this result shows that most college entrants are young adolescents. This opens the fact that these kinds of students, given their age, need academic and professional guidance in finishing their college degrees and motivation to pursue their chosen careers. In this respect, the role of the Physical Education teachers is perceived to be highly valuable in increasing the quality of the individual's potential.

### 4.2. Year level

Table 3 presents the distribution of the PE students' year level. Profile on year level has been considerably taken as another variable that may affect the performance of the students in any field of Physical Education and sports.

The respondents' distribution from the first to the fourth year is between 24% and 25%. In contrast, irregular students account for 1.3 % of the sample population. This finding indicates that the students from all year levels have expressed their intention of taking Physical Education as their career.

**Table 3.** Distribution of Respondents by Year Level

Year Level	Frequency ( f )	Percentage ( % )
First Year	252	24.4%
Second Year	259	25.1%
Third Year	251	24.3%
Fourth Year	257	24.9%
Irregular	13	1.3%
Total	1032	100.0%

The figures indicate the intention of college students to finish their college degrees. This finding shows their ardent desire to have a successful future. A report on Education in China (2019) indicated that China's own education system has simultaneously undergone an unprecedented expansion and modernization. It is now the world's most extensive education system after the number of tertiary students. Moreover, the same report emphasized that Chinese higher education institutions (HEIs) currently pump out around 8 million graduates annually—more graduates than the U.S. and India produce combined. This number is expected to grow by another 300 percent by 2030.

Textor (2021) reported that in 2020, around 33 million undergraduate students were enrolled in degree programs at public colleges and universities in China. Amid the online-classes setup of the past two school years, the number of Chinese students enrolled in the university. The gross enrollment rate of China's higher education sector hit 54.4 percent in 2020, according to the Ministry of Education (MOE). Data released by the MOE revealed that a total of 41.83 million students are studying in the country's 2,738 higher education institutions nationwide, including universities, colleges, and higher vocational schools.

The MOE (2016) added that Chinese students showed a gradual improvement in physical fitness as 33 percent were evaluated as being in good shape in 2020 compared to 26.5 percent in 2016.

## 5. Conclusions

Based on the findings, the following conclusions were drawn:

1. Most male students aged 18 to 20 prefer Fitness and Health, Gymnastics, and Sports in Physical Education courses, indicating they are young and suitable for the program.
2. PE teachers show high instructional leadership, empowering them to deliver quality instruction.
3. Students' demographics do not significantly affect PE teachers' instructional leadership practices.
4. Students find PE teachers' self-efficacy levels very satisfactory, showcasing their confidence in teaching PE subjects.
5. Teachers' self-efficacy levels are not significantly related to students' demographic profiles.

6. There's no significant relationship between PE teachers' instructional leadership practices and self-efficacy levels.

7. PE teachers face challenges in executing instructional leadership practices, emphasizing the multifaceted nature of teaching and learning.

8. Proposed intervention programs aim to enhance instructional leadership and efficacy among PE teachers, improving PE instruction and curriculum.

## 6. Recommendations

Based on the above findings and conclusions, the following recommendations are hereby given:

1. Explore students' academic performance, course choice, and school-offered physical activities to understand their relevance to teachers' efficacy levels.
2. Investigate students' preferred teaching approaches to compare with teachers' perceptions of instructional leadership.
3. Analyze significant variables like PE teachers' proficiency to better grasp their perceived efficacy.
4. PE teachers in higher education should reassess teaching methods to enhance academic performance by closely observing student behavior.
5. Conduct research with a larger participant pool to gain insights into PE teachers' leadership styles and school leaders' managerial roles.
6. Consider future studies exploring the alignment between PE teachers' self-perception and students' preferences for instructional leadership to understand their interaction better.

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