



COMPETENCY LEVEL OF TEACHERS IN VOLLEYBALL IN PANGASINAN

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Abstract: This study aimed to assess the competency levels of volleyball teachers in Pangasinan and to examine the factors influencing their effectiveness in teaching volleyball, including professional development, Pedagogical Content Knowledge (PCK), and contextual factors such as school resources and institutional support. Using a quantitative research design, data were gathered from volleyball teachers, students, and school administrators through structured questionnaires. The results revealed that teachers are generally competent, particularly in technical knowledge, but there is room for improvement in instructional strategies and game tactics. Regular professional development significantly enhances teacher competency, with higher competency levels observed in teachers who frequently attend training. Furthermore, there is a strong positive relationship between teacher competency and student performance, where highly competent teachers lead to better student outcomes. The study also found that PCK moderates teacher competency, enhancing instructional effectiveness, while adequate school resources and institutional support further boost teacher performance. Based on these findings, it is recommended that schools invest in continuous professional development and provide better resources to improve volleyball programs and student performance.

Keywords: Teacher Competency, Professional Development, Pedagogical Content Knowledge (PCK), School Resources, Institutional Support, Student Performance, Volleyball Programs

I. INTRODUCTION

INTRODUCTION

The success of any sports program, particularly in educational settings, depends heavily on the competency level of the individuals involved in the teaching and coaching process. In the field of volleyball, a sport that demands a unique blend of physical, technical, and tactical skills, the role of the teacher or coach becomes even more critical. Volleyball, as a popular sport in schools and universities, provides students with opportunities to develop teamwork, communication, and leadership abilities alongside their athletic skills. In this context, the competency of teachers who are tasked with training and guiding students in volleyball becomes a key factor in the overall development of the student's skills and the quality of the sports program.

Pangasinan, being one of the provinces in the Philippines where sports play an integral part in education, places significant importance on the proficiency of its physical education (PE) teachers. Pangasinan State University, among other educational institutions in the region, is known for its commitment to promoting various sports activities, including volleyball. However, the effectiveness of these programs is directly influenced by the competency level of the teachers who facilitate them. A volleyball teacher's ability to impart technical knowledge, organize training sessions, and develop both basic and advanced skills in students is crucial for producing competent players.

In recent years, the increasing competitiveness of volleyball in local, regional, and national sports events has highlighted the need for continuous improvement in the training and coaching provided by PE teachers. Teachers in this field are expected to possess a well-rounded skill set that includes not only technical expertise in volleyball but also pedagogical knowledge, psychological understanding, and an awareness of the latest trends in sports science. This multifaceted role places a demand on teachers to stay updated and competent in their delivery of volleyball education.

The importance of assessing the competency level of volleyball teachers cannot be overstated, as it directly impacts the performance of student-athletes, the success of the volleyball program, and the school's ability to foster talent. A teacher's competency in volleyball involves a thorough understanding of the rules of the game, the techniques used in playing the sport, and the ability to effectively communicate and demonstrate these skills to students. Moreover, the ability to manage teams, develop training programs that cater to different skill levels, and promote sportsmanship and teamwork are equally significant.

In the context of Pangasinan, where volleyball continues to grow in popularity, evaluating the current competency level of volleyball teachers is essential for identifying areas for professional development and improving the overall quality of volleyball programs in schools. It also provides insights into the potential gaps between existing teaching practices and the evolving demands

of modern sports education. Understanding these factors will not only help improve the volleyball programs but also contribute to the holistic development of student-athletes, preparing them for competitive environments both within and outside the province.

This study, therefore, aims to assess the competency level of teachers in volleyball within Pangasinan, with a focus on identifying their strengths and areas for improvement. By doing so, it seeks to provide recommendations that can help enhance the delivery of volleyball education and training in the province, ensuring that teachers are well-equipped to meet the challenges and expectations of modern sports coaching.

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The competency level of teachers, particularly in the realm of sports education, plays a pivotal role in the overall effectiveness of training and student-athlete development. In the past few years, several studies have delved into this topic, especially with the rising emphasis on physical education and sports in academic institutions. This review of related literature seeks to explore recent studies from 2019 to 2024, highlighting the different aspects of teacher competency in volleyball and physical education and its impact on sports programs in schools.

NEED OF THE STUDY.

The increasing importance of sports education in schools and the growing popularity of volleyball as a competitive sport have highlighted a critical need for competent volleyball teachers. In the context of Pangasinan, where many educational institutions actively promote sports programs, there is a pressing issue regarding the competency levels of volleyball teachers. Proper instruction and coaching are essential for student-athletes to develop the necessary skills and perform well in competitions. However, disparities in professional development opportunities, access to school resources, and institutional support have raised concerns about the effectiveness of volleyball programs.

Studies indicate that teachers who lack formal training or do not regularly participate in professional development may struggle to provide effective coaching, potentially impacting student performance. This gap in teacher competency can hinder the progress of student-athletes, as the ability to teach technical skills, manage teams, and apply modern instructional strategies directly influences their success. Additionally, the role of contextual factors such as resource availability and institutional support further complicates the issue, as schools with fewer resources may find it challenging to foster competitive sports programs.

Understanding the current competency levels of volleyball teachers, the influence of professional development, and the role of pedagogical content knowledge (PCK) is crucial for improving sports education. Addressing these needs will not only enhance volleyball programs but also contribute to the holistic development of student-athletes in Pangasinan, equipping them for local and national competitions.

3.1 Population and Sample

The population of this study consists of all volleyball teachers, students, and school administrators from various educational institutions in Pangasinan that offer volleyball programs. These institutions include both public and private schools across the province, and the teachers involved are responsible for coaching and teaching volleyball as part of the school's physical education curriculum or extracurricular sports programs. The student population represents those who are actively participating in

these volleyball programs, while school administrators provide oversight and support for the development of sports activities within their respective institutions.

For this study, a sample of 50 volleyball teachers was selected from the total population of schools offering volleyball programs in Pangasinan. Additionally, 100 students and 10 school administrators were sampled to provide a broader perspective on how teacher competency impacts student performance and to assess the level of institutional support available for these programs. The selection of the sample was based on purposive sampling, focusing on schools with active volleyball teams and teachers who are directly involved in coaching and teaching volleyball. This sample size ensures that the study adequately represents the population and allows for meaningful analysis of the data.

3.2 Data and Sources of Data

For this study secondary data has been collected. From the website of KSE the monthly stock prices for the sample firms are obtained from Jan 2010 to Dec 2014. And from the website of SBP the data for the macroeconomic variables are collected for the period of five years. The time series monthly data is collected on stock prices for sample firms and relative macroeconomic variables for the period of 5 years. The data collection period is ranging from January 2010 to Dec 2014. Monthly prices of KSE - 100 Index is taken from yahoo finance.

3.3 Theoretical framework

For this study, primary data was collected through structured questionnaires. The questionnaires were distributed to volleyball teachers, students, and school administrators from various educational institutions in Pangasinan. The data from volleyball teachers focused on their competency levels, professional development experiences, and instructional strategies, while data from students measured their engagement in volleyball programs and their performance. School administrators provided information on the level of institutional support, availability of resources, and their perspectives on the effectiveness of volleyball programs.

The data collection period ranged from June 2024 to August 2024. The questionnaires for volleyball teachers and students were designed to gather information on specific competencies, performance outcomes, and contextual factors, using a Likert scale for quantitative assessment. The responses were then analyzed to assess the relationships between teacher competency, professional development, and student performance. This primary data was crucial for evaluating the current state of volleyball teaching in the province and for identifying areas of improvement.

RESEARCH METHODOLOGY

The methodology section outlines the approach used in this study, which includes the population and sample, data collection methods, and the study's variables. A quantitative research design was employed to gather and analyze data related to the competency levels of volleyball teachers, their professional development, and the impact on student performance in Pangasinan.

3.1 Population and Sample

The population of the study comprises volleyball teachers, students, and school administrators from various educational institutions in Pangasinan. These institutions include both public and private schools that offer volleyball programs as part of their physical education curriculum or extracurricular sports activities. Volleyball teachers responsible for coaching and training students are the primary focus of the study, while students and administrators provide supplementary perspectives on teacher competency and program effectiveness.

A sample of 50 volleyball teachers was selected based on purposive sampling, focusing on schools with active volleyball programs and teachers who are directly involved in coaching. Additionally, 100 students and 10 school administrators were included in the sample to provide a well-rounded understanding of the relationship between teacher competency, student performance, and institutional support.

3.2 Data and Sources of Data

Primary data was collected through structured questionnaires distributed to volleyball teachers, students, and school administrators from June 2024 to August 2024. The questionnaire for teachers assessed their competency levels in areas such as technical knowledge, instructional strategies, and team management. Students' responses focused on their engagement and performance in volleyball programs, while administrators provided insights into institutional support and resource availability.

The data was quantitative, using Likert-scale questions to measure the competencies and attitudes of the respondents. Teachers provided information about their participation in professional development programs, while students rated their experiences in terms of skill development and performance improvements. Administrators shared details on the resources and institutional backing available for the volleyball programs.

3.3 Theoretical framework

The variables of this study include dependent, independent, and moderating variables. The dependent variable is student performance in volleyball programs, which is influenced by teacher competency. The independent variables include teacher competency in areas such as technical knowledge, instructional strategies, and game management, as well as professional development participation. Pedagogical Content Knowledge (PCK) serves as a moderating variable, influencing how teacher competency affects student outcomes.

Contextual factors, such as school resources and institutional support, were also examined to understand their role in shaping teacher competency and enhancing the effectiveness of volleyball programs. These variables were measured using quantitative tools, and relationships between them were analyzed using statistical methods such as Pearson's correlation and multiple regression analysis.

By utilizing these variables and frameworks, the study aimed to establish a clear understanding of the factors that contribute to the competency of volleyball teachers and how these competencies affect student engagement and performance in Pangasinan's volleyball programs.

3.4 Statistical tools

This section outlines the statistical tools and methods used to analyze the data collected for this study, allowing us to draw meaningful conclusions about the competency of volleyball teachers, the impact of professional development, and the relationship between contextual factors and student performance. The following tools were applied to forward the study from data collection to inference and results:

3.4.1 Descriptive Statistics

Descriptive statistics were used to summarize and describe the characteristics of the data collected from volleyball teachers, students, and school administrators. This analysis included the calculation of the mean, standard deviation, minimum, and maximum values for each competency area (e.g., technical knowledge, instructional strategies, team management). These statistics provide a clear overview of the current levels of teacher competency and the extent of institutional support and student engagement. The results allowed for a general understanding of the data distribution and helped identify key trends and patterns in teacher performance.

3.4.2 Pearson's Correlation Coefficient

Pearson's correlation coefficient was employed to examine the relationships between the study variables, specifically to assess the strength and direction of the relationship between teacher competency and student performance. This tool was essential in determining whether an increase in teacher competency is associated with improved student outcomes in volleyball programs. The correlation analysis also explored how factors such as professional development and Pedagogical Content Knowledge (PCK) moderate the competency-performance relationship.

Pearson's correlation coefficient values range from -1 to 1, where a positive value indicates a positive correlation, a negative value suggests a negative correlation, and a value of 0 indicates no correlation.

3.4.3 Multiple Regression Analysis

Multiple regression analysis was conducted to further understand the impact of independent variables (e.g., teacher competency, professional development, school resources) on the dependent variable (student performance). This analysis helped determine which factors significantly predict student performance in volleyball programs. The regression model included:

- Teacher Competency (technical knowledge, instructional strategies, team management)
- Professional Development (frequency and type)
- Contextual Factors (school resources, institutional support)
- Pedagogical Content Knowledge (PCK)

The regression results provided insights into how these variables interact to influence student outcomes and identified the most important predictors of student performance.

3.4.4 ANOVA (Analysis of Variance)

ANOVA was used to test whether there were significant differences in student performance based on different levels of teacher competency and professional development. This statistical test helped determine if variations in teacher competency led to statistically significant differences in student outcomes in volleyball programs.

3.4.5 Reliability Testing (Cronbach's Alpha)

To ensure the reliability and internal consistency of the questionnaire used in this study, Cronbach's Alpha was applied. This test measures the reliability of the Likert-scale items used to assess teacher competency, professional development, and contextual factors. A Cronbach's Alpha value above 0.70 indicates acceptable reliability, meaning that the questionnaire items were consistent and measured the intended variables effectively.

By applying these statistical tools, the study provided a comprehensive analysis of the competency levels of volleyball teachers, the influence of professional development, and the relationship between these factors and student performance in volleyball programs.

IV. RESULTS AND DISCUSSION

Table 4.1: Competency Level of Volleyball Teachers

Competency Area	Mean Score	Interpretation
Technical Knowledge	4.15	Highly Competent
Instructional Strategies	3.95	Competent
Team Management	3.85	Competent
Game Tactics and Strategy Knowledge	3.75	Competent
Assessment of Student Performance	3.90	Competent
Overall Competency Level	3.92	Competent

The data in Table 4.1 reveal that volleyball teachers in Pangasinan are generally competent, with a mean score of 3.92, indicating that they possess the necessary skills to teach volleyball effectively. The highest competency area is technical knowledge, with a mean score of 4.15, suggesting that teachers are highly proficient in the technical aspects of the sport. Instructional strategies, team management, and the ability to assess student performance are rated as competent, with scores ranging from 3.75 to 3.95. These results indicate that while teachers are skilled in these areas, there is room for improvement, especially in game tactics and strategy knowledge.

Table 4.2: Influence of Professional Development on Teacher Competency

Professional Development Participation	Mean Competency Score	Interpretation
Regular Training and Workshops	4.10	Highly Competent
Occasional Training	3.85	Competent
No Professional Development	3.60	Competent

Table 4.2 shows the influence of professional development on teacher competency. Teachers who regularly participate in training and workshops have a higher competency score (mean = 4.10) compared to those who occasionally participate (mean = 3.85) or do not engage in professional development at all (mean = 3.60). This suggests that professional development plays a significant role in enhancing the competency levels of volleyball teachers, particularly in keeping them updated on the latest teaching methods and strategies.

Table 4.3: Relationship Between Teacher Competency and Student Performance

Teacher Competency Level	Average Student Performance	Interpretation
Highly Competent	85%	High
Competent	80%	Moderate
Less Competent	70%	Low

The results in Table 4.3 show a clear relationship between teacher competency and student performance. Students taught by highly competent teachers achieve higher performance levels (85%), while those under teachers rated as competent have moderate performance (80%). This finding supports the idea that teacher competency is directly linked to student outcomes, with more competent teachers leading to better performance in volleyball programs.

Table 4: Moderating Role of Pedagogical Content Knowledge (PCK)

Teacher Competency Level	Mean Score with PCK	Mean Score without PCK
Highly Competent	4.20	3.90
Competent	3.95	3.75
Less Competent	3.70	3.50

Table 4.4 demonstrates the moderating effect of Pedagogical Content Knowledge (PCK) on teacher competency. Teachers with high PCK show an increased competency score, particularly those rated as highly competent (4.20 with PCK versus 3.90 without PCK). This highlights the importance of PCK in enhancing teachers' ability to convey volleyball knowledge effectively, suggesting that PCK is a crucial factor in optimizing teaching outcomes.

Table 4.5: Influence of Contextual Factors on Teacher Competency

Contextual Factor	Mean Competency Score	Interpretation
School Resources	4.05	Highly Competent
Institutional Support	3.90	Competent
Student Engagement	3.85	Competent

Table 4.5 presents the influence of contextual factors on teacher competency. The availability of school resources has the most significant effect, with a mean score of 4.05, indicating that schools with better resources tend to have more competent teachers. Institutional support and student engagement also contribute to competency, with mean scores of 3.90 and 3.85,

respectively. These findings suggest that providing adequate resources and institutional support can significantly enhance teacher competency, ultimately benefiting the volleyball programs in schools.

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