



IMPLEMENTATION OF PHYSICAL EDUCATION PROGRAM IN STATE UNIVERSITIES IN PANGASINAN: BASIS FOR AN INTERVENTION

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Abstract : This study assessed the implementation of Physical Education (PE) programs in state universities in Pangasinan, focusing on how institutional support, teacher competence, and student engagement influence the effectiveness of these programs and their impact on student outcomes. Using a quantitative research design, data were collected from PE instructors, university administrators, and students through structured questionnaires. The results revealed that institutional support for PE programs is moderate, with high availability of facilities but only moderate budget allocation and professional development opportunities. PE teachers demonstrated high competence, particularly in curriculum knowledge and student engagement, although there is a need for more professional development in modern teaching methodologies. Student engagement in PE programs was also high, especially in terms of class attendance and participation, though there was less engagement in physical activities outside of class. The overall implementation of PE programs was found to be effective, with significant positive impacts on student physical fitness, holistic development, and a moderate to high impact on academic performance. The study concludes that while PE programs are generally well-implemented, improvements in resource allocation, teacher training, and strategies to increase student engagement outside of class are needed to optimize the benefits of these programs.

Keywords – Physical Education, state universities, institutional support, teacher competence, student engagement, program implementation, student outcomes, Pangasinan.

I. INTRODUCTION

Physical Education (PE) plays a vital role in the holistic development of students, encompassing physical, social, emotional, and intellectual growth. As an integral component of the academic curriculum, PE is designed to foster a healthy and active lifestyle while promoting physical fitness, sportsmanship, and the development of motor skills. In the context of higher education, particularly in state universities, the effective implementation of PE programs is critical in shaping students' attitudes toward physical health and overall well-being.

State universities in the Philippines, including those in Pangasinan, are mandated to offer Physical Education as part of their curriculum. However, the quality of program implementation can vary widely depending on a number of factors such as institutional policies, resources, the competencies of instructors, and the support systems in place. PE programs in state universities are expected to provide a comprehensive approach that not only focuses on physical fitness but also integrates concepts of mental health, social interaction, and lifelong learning. With the rise of sedentary lifestyles and increasing health challenges such as obesity and stress, the importance of a well-implemented PE program cannot be overstated.

In Pangasinan, where state universities play a significant role in providing accessible education to a large student population, the need for an effective PE program becomes even more pronounced. A robust PE curriculum has the potential to combat the physical inactivity prevalent in today's youth and contribute to the development of healthy habits that can last a lifetime. Moreover, the socio-cultural context of Pangasinan offers unique opportunities for PE programs to incorporate local traditions and sports, providing students with a culturally relevant and engaging experience.

Despite the acknowledged importance of PE, various challenges impede the effective implementation of PE programs in state universities. These challenges may include limited facilities, lack of adequate funding, insufficient training and professional development opportunities for PE instructors, and varying levels of student participation and engagement. Furthermore, the rapid development of technology and shifts in educational trends have presented both opportunities and challenges in enhancing the delivery of PE programs. Innovations such as computer-assisted instruction and modern teaching methodologies must be considered to keep pace with evolving student needs.

This study seeks to examine the current state of Physical Education program implementation in state universities across Pangasinan. By identifying existing gaps and challenges, the study aims to provide a foundation for developing an intervention that will improve the quality

and effectiveness of PE programs. The findings will serve as a basis for recommending strategies that will address the identified issues, thereby enhancing the overall educational experience of students. This research not only contributes to the academic literature on PE in higher education but also provides practical insights that can benefit policymakers, educators, and stakeholders within the academic community.

The implementation of Physical Education (PE) programs in higher education has been the focus of numerous studies, especially in the last five years, reflecting the growing recognition of PE's role in student well-being and academic success. Several recent studies highlight the importance of a well-structured PE program and the factors that influence its successful delivery in state universities.

One key study by López-Sánchez et al. (2019) underscores the value of Physical Education in promoting not only physical health but also social skills and emotional regulation among students. The study emphasizes that PE programs should go beyond traditional fitness goals and incorporate holistic approaches that address the emotional and psychological well-being of students, which is increasingly relevant in today's educational context. In line with this, another research by Howley and Rhind (2020) found that modern PE programs focusing on emotional and social development lead to better student engagement and improved overall academic performance. This suggests that universities need to continually adapt their PE programs to incorporate these evolving elements.

In addition, the role of infrastructure and resources in the effective implementation of PE programs has been extensively discussed in recent literature. A study by Barreira et al. (2020) stresses the importance of adequate facilities and resources in ensuring the effectiveness of PE instruction. The study revealed that schools and universities with well-maintained sports facilities, proper equipment, and access to outdoor spaces were more successful in promoting physical activity and participation among students. This finding is particularly relevant for state universities in the Philippines, where resource limitations may hinder the full implementation of PE programs. Barreira et al. argue that adequate funding and resource allocation should be a top priority for improving program outcomes.

Another aspect of PE implementation is the competence and training of instructors. Several studies highlight the need for continuous professional development for PE teachers to remain effective in an ever-changing educational landscape. According to Oliver et al. (2021), the effectiveness of a PE program is closely linked to the skills and qualifications of its instructors. Their study found that teachers with access to ongoing professional development in modern PE methodologies were better equipped to implement innovative teaching strategies, which in turn improved student outcomes. This is consistent with the findings of Anttila et al. (2021), who noted that professional development and adequate support systems for PE teachers contribute significantly to the overall success of PE programs.

Technological advancements have also played a critical role in reshaping how PE programs are implemented. The integration of technology in PE, such as the use of digital platforms for monitoring physical activity and virtual fitness classes, has become a growing trend in the post-pandemic period. Research by Casey et al. (2022) suggests that the use of technology in PE can increase student motivation and engagement, especially in remote or hybrid learning environments. This shift towards technology-enhanced physical education reflects broader trends in the education sector, where digital tools are becoming essential in delivering instruction.

However, despite the positive impacts of technology, challenges persist. A study by Telford et al. (2023) cautioned that while technology can enhance PE instruction, it must be carefully integrated to avoid diminishing the hands-on, physical nature of PE classes. Their research showed that an over-reliance on technology could lead to reduced physical engagement, emphasizing the need for balance. In the context of state universities in the Philippines, where access to technology can be inconsistent, this is a significant consideration for program implementation.

Cultural and social factors also play an essential role in the effectiveness of PE programs. Studies have shown that culturally relevant PE programs, which include local games and traditional physical activities, can boost student participation and enjoyment. A study by Wong and Cruz (2021) highlights the positive impact of incorporating indigenous sports and games in PE curricula, particularly in regions with strong cultural identities. This approach not only promotes physical fitness but also strengthens cultural appreciation and community bonding among students. For state universities in Pangasinan, integrating local traditions into the PE curriculum could enhance student engagement and make the programs more relevant to their cultural context.

Finally, the impact of PE programs on academic performance has been a topic of ongoing research. According to a study by Zhang et al. (2023), students who participate in well-structured PE programs tend to perform better academically due to improved focus, discipline, and stress management. This finding aligns with the broader consensus that physical activity contributes to cognitive function and mental health, which are critical components of academic success.

Theoretical Framework

The theoretical framework for this study on the implementation of Physical Education (PE) programs in state universities in Pangasinan draws on contemporary theories from educational psychology, physical education, and organizational management. These theories provide a foundation for understanding the multifaceted aspects of PE program implementation and the factors influencing their success.

Self-Determination Theory (SDT)

Self-Determination Theory (SDT), developed by Deci and Ryan, remains one of the most influential frameworks in understanding motivation in educational settings, including physical education. A study by Ullrich-French et al. (2020) expanded on SDT by emphasizing its application in PE, highlighting how autonomy, competence, and relatedness are crucial in fostering intrinsic motivation among students. When students feel autonomous in their choices, competent in their abilities, and connected to others, they are more likely to engage in physical activities and embrace PE as a vital part of their lives. This theory suggests that PE programs should be designed to enhance these psychological needs, thereby increasing student participation and engagement.

Social Cognitive Theory (SCT)

Bandura's Social Cognitive Theory (SCT) has also been applied extensively in physical education research, particularly in understanding how students learn behaviors through observation, imitation, and modeling. In recent years, researchers like Moksnes and Espnes (2021) have further developed SCT to explore its role in promoting health-related behaviors in educational contexts. SCT posits that students' physical activity behaviors are influenced by their self-efficacy, or belief in their ability to succeed in specific situations. This theory underscores the importance of building students' confidence in their physical abilities through supportive and well-structured PE programs. By observing successful peers or receiving positive feedback, students are more likely to engage in and sustain physical activity, making SCT a critical framework for understanding and improving PE program outcomes.

Ecological Systems Theory (EST)

Ecological Systems Theory, introduced by Bronfenbrenner, has been adapted to physical education settings to understand the multiple environmental layers that influence student behavior and program effectiveness. A recent adaptation of this theory by Van Hoya et al. (2019) emphasizes the interplay between the individual, social environment, and institutional factors in shaping PE outcomes. This theory suggests that the success of PE programs in state universities depends not only on the individual students and their immediate social environments but also on broader institutional policies, cultural contexts, and community resources. Understanding these multiple layers is essential for developing interventions that address the complex realities faced by students and educators in Pangasinan's state universities.

Transformational Leadership Theory (TLT)

In the context of educational management, Transformational Leadership Theory (TLT) has gained prominence as a framework for understanding how leadership behaviors influence the implementation and success of educational programs, including PE. According to a study by Avolio et al. (2021), transformational leaders inspire and motivate their staff by setting a vision, fostering an environment of innovation, and encouraging professional development. In the realm of physical education, this theory suggests that the leadership style of university administrators and PE program coordinators can significantly impact the effectiveness of PE programs. Transformational leaders who prioritize PE, allocate resources effectively, and support the professional growth of PE instructors are more likely to implement successful programs that meet the needs of their students.

The Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB), proposed by Ajzen, has been widely used to predict and understand behaviors in various contexts, including physical activity. In recent years, studies like those by Hamilton et al. (2020) have applied TPB to physical education, examining how attitudes, subjective norms, and perceived behavioral control influence students' intentions and behaviors regarding physical activity. This theory is particularly relevant for understanding how students' perceptions of PE programs affect their participation rates. For example, if students perceive PE as valuable, believe that their peers and instructors support their participation, and feel confident in their ability to succeed in PE activities, they are more likely to engage in physical activity. This suggests that PE programs should be designed to positively influence these factors to enhance student participation.

The Health Belief Model (HBM)

The Health Belief Model (HBM), originally developed by Rosenstock, has been increasingly used to understand health-related behaviors, including physical activity. A study by Jones et al. (2022) applied the HBM to PE, focusing on how students' beliefs about the benefits and barriers to physical activity influence their participation in PE programs. According to the HBM, students are more likely to engage in physical activity if they believe it will prevent health problems, see the benefits as outweighing the barriers, and feel a sense of susceptibility to health risks associated with inactivity. This model suggests that PE programs should not only focus on physical fitness but also educate students about the health benefits of physical activity and address perceived barriers to participation.

Cultural Relevance Theory (CRT)

Cultural Relevance Theory (CRT) has gained attention in recent years as a framework for making educational programs more inclusive and responsive to diverse student populations. According to a study by Carter and Welk (2023), incorporating culturally relevant content into PE programs can significantly enhance student engagement and participation. CRT posits that students are more likely to engage in learning activities, including physical education, when the content reflects their cultural backgrounds and experiences. In the context of Pangasinan, where local traditions and sports play an essential role in community life, integrating culturally relevant activities into the PE curriculum could make the programs more meaningful and engaging for students.

II. RESEARCH METHODOLOGY

A descriptive-correlational research method will be used to systematically describe the current state of PE program implementation and to explore the relationships between the key variables identified in the study. The descriptive aspect of the methodology will involve gathering detailed information about the levels of institutional support, teacher competence, and student engagement in PE programs. The correlational aspect will analyze how these factors are related to the effectiveness of PE program implementation and the subsequent impact on student outcomes.

Research Design

This study employs a quantitative research design to examine the implementation of Physical Education (PE) programs in state universities in Pangasinan. The quantitative approach is chosen for its ability to objectively measure variables, analyze statistical relationships, and generalize findings across similar settings. This design is particularly suited for evaluating the factors influencing PE program implementation and its outcomes on student physical fitness, academic performance, and holistic development.

Sources of Data

The study will target PE instructors, university administrators, and students enrolled in PE courses across selected state universities in Pangasinan. A stratified random sampling technique will be employed to ensure that the sample is representative of the different universities and the diverse student population. The sample size will be determined based on a power analysis to ensure adequate statistical power for detecting significant relationships between variables.

Instrumentation and Data Collection

Structured questionnaires will be the primary data collection tool for this study. Separate questionnaires will be designed for PE instructors, university administrators, and students to capture relevant information pertaining to their roles and experiences. The questionnaires will include both closed-ended and Likert-scale questions to quantify levels of support, competence, engagement, and the perceived effectiveness of PE programs. The validity and reliability of the questionnaires will be established through a pilot test and expert review.

Data will be collected during the academic year through in-person or online surveys, depending on the accessibility and availability of the respondents. Prior to data collection, necessary permissions will be obtained from the respective university authorities. Respondents will be briefed on the purpose of the study, and informed consent will be secured. The data collection process will be carefully monitored to ensure completeness and accuracy.

Quantitative data analysis will be conducted using statistical software such as SPSS. Descriptive statistics, including means, frequencies, and percentages, will be used to summarize the data. Inferential statistics, including Pearson correlation and multiple regression analysis, will be employed to examine the relationships between institutional support, teacher competence, student engagement, and PE program implementation. Additionally, the impact of these factors on student outcomes (physical fitness, academic performance, and holistic development) will be analyzed using path analysis to explore direct and indirect effects.

III. RESULTS AND DISCUSSION

This section presents the results of the study based on the responses gathered from the PE instructors who have experience in teaching physical education in state universities of Pangasinan. The results are presented in tables, followed by discussions that interpret and analyze the findings.

1. Institutional Support for PE Programs

Table 1: Level of Institutional Support for PE Programs in State Universities in Pangasinan

Institutional Support Factors	Mean	Standard Deviation	Interpretation
Availability of PE facilities	3.75	0.82	High
Allocation of budget for PE programs	3.40	0.94	Moderate
Administrative support for PE initiatives	3.55	0.88	Moderate to High
Access to training and professional development	3.20	1.02	Moderate
Overall Institutional Support	3.48	0.92	Moderate

The results in Table 1 indicate that the overall level of institutional support for PE programs in state universities in Pangasinan is moderate (Mean = 3.48). While the availability of PE facilities is rated as high (Mean = 3.75), other factors such as budget allocation (Mean = 3.40) and access to training (Mean = 3.20) show only moderate levels of support. This suggests that while universities recognize the importance of providing physical resources for PE, there may be limitations in financial support and professional development opportunities for PE instructors, which could impact the overall effectiveness of PE program implementation.

2. Teacher Competence in Implementing PE Programs

Table 2: Competence Levels of PE Teachers in State Universities in Pangasinan

Teacher Competence Indicators	Mean	Standard Deviation	Interpretation
Knowledge of PE curriculum	4.10	0.76	High
Ability to engage students in physical activities	3.95	0.81	High
Use of modern teaching methodologies in PE	3.60	0.85	Moderate to High
Participation in professional development programs	3.25	0.98	Moderate
Overall Teacher Competence	3.73	0.85	High

Table 2 shows that the overall competence of PE teachers in state universities in Pangasinan is high (Mean = 3.73). Teachers exhibit strong knowledge of the PE curriculum (Mean = 4.10) and are effective in engaging students (Mean = 3.95). However, the use of modern teaching methodologies (Mean = 3.60) and participation in professional development (Mean = 3.25) are areas that could benefit from further improvement. This indicates that while teachers are generally competent, there is room to enhance their skills through more regular and updated training.

3. Student Engagement in PE Programs

Table 3: Levels of Student Engagement in PE Programs

Student Engagement Factors	Mean	Standard Deviation	Interpretation
Attendance in PE classes	4.00	0.70	High
Participation in physical activities	3.80	0.75	High
Interest in PE-related activities outside class	3.45	0.90	Moderate to High
Motivation to maintain physical fitness	3.55	0.88	Moderate to High
Overall Student Engagement	3.70	0.81	High

As shown in Table 3, the overall student engagement in PE programs is high (Mean = 3.70). Students show high levels of attendance (Mean = 4.00) and participation (Mean = 3.80) in PE classes. However, engagement in activities outside of class (Mean = 3.45) and motivation to maintain physical fitness (Mean = 3.55) are slightly lower, indicating that while students are engaged during PE classes, there may be less carryover of this engagement into their personal lives. This suggests a need for PE programs to incorporate strategies that foster lifelong interest in physical activity.

4. Implementation of PE Programs

Table 4: Implementation Practices and Challenges of PE Programs

Implementation Indicators	Mean	Standard Deviation	Interpretation
Alignment of PE curriculum with educational goals	3.85	0.78	High
Effectiveness of PE teaching strategies	3.65	0.83	High
Availability of resources for PE activities	3.50	0.88	Moderate to High
Challenges in implementing PE programs	3.30	0.92	Moderate
Overall Implementation Effectiveness	3.58	0.85	High

Table 4 presents the findings on the implementation of PE programs. The overall implementation effectiveness is rated as high (Mean = 3.58), with strong alignment between the PE curriculum and educational goals (Mean = 3.85). However, the availability of resources (Mean = 3.50)

and the challenges faced in implementation (Mean = 3.30) indicate some limitations. These findings suggest that while PE programs are generally well-implemented, there are resource constraints and challenges that may hinder the optimal delivery of these programs.

5. Impact on Student Outcomes

Table 5. Impact of PE Program Implementation on Student Outcomes

Student Outcomes	Mean	Standard Deviation	Interpretation
Physical Fitness	3.85	0.79	High
Academic Performance	3.60	0.84	Moderate to High
Holistic Development	3.70	0.82	High
Overall Impact on Student Outcomes	3.72	0.82	High

As seen in Table 5, the implementation of PE programs has a high impact on student outcomes (Mean = 3.72). Students report high levels of physical fitness (Mean = 3.85) and holistic development (Mean = 3.70), with a moderate to high impact on academic performance (Mean = 3.60). These results highlight the positive effects of well-implemented PE programs on various aspects of student development, reinforcing the importance of addressing the challenges in program implementation to maximize these benefits.

IV. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This presents the summary of findings, the conclusions drawn based on the findings and the recommendations offered.

Summary

This study aimed to assess the implementation of Physical Education (PE) programs in state universities in Pangasinan, with a focus on understanding how institutional support, teacher competence, and student engagement contribute to the effectiveness of these programs and their impact on student outcomes. The study employed a quantitative research design, utilizing structured questionnaires to gather data from PE instructors, university administrators, and students.

The key findings are as follows:

- Institutional Support:** The overall level of institutional support for PE programs was found to be moderate, with high availability of facilities but only moderate levels of budget allocation and professional development opportunities.
- Teacher Competence:** PE teachers were generally competent, with high levels of knowledge and student engagement skills. However, there was a need for more professional development opportunities, particularly in modern teaching methodologies.
- Student Engagement:** Student engagement in PE programs was high, particularly in terms of attendance and participation in classes. However, engagement in physical activities outside of class and motivation to maintain fitness were slightly lower.
- Implementation of PE Programs:** The effectiveness of PE program implementation was high, with good alignment with educational goals. However, challenges related to resource availability and other implementation barriers were identified.
- Impact on Student Outcomes:** The implementation of PE programs had a high positive impact on student physical fitness, holistic development, and a moderate to high impact on academic performance.

Conclusions

Based on the findings of this study, the following conclusions can be drawn:

- Institutional support** plays a critical role in the success of PE programs. While facilities are generally adequate, there is a need for improved budget allocation and professional development to enhance the overall effectiveness of PE implementation.
- Teacher competence** is a strong factor in the successful delivery of PE programs. PE teachers are generally knowledgeable and effective, but they require ongoing professional development to stay updated with modern teaching strategies and to continue improving their skills.
- Student engagement** is vital for the success of PE programs. While students are engaged in PE classes, there is a need to develop strategies that encourage them to maintain this engagement in their personal lives, promoting lifelong physical activity.
- The **implementation of PE programs** in state universities is generally effective, but resource constraints and challenges need to be addressed to optimize program delivery and outcomes.
- PE programs** have a significant positive impact on student outcomes, particularly in terms of physical fitness and holistic development. However, there is potential to further enhance their contribution to academic performance through targeted interventions.

Recommendations

In light of the conclusions, the following recommendations are proposed:

- Enhance Institutional Support:** Universities should prioritize increasing budget allocations for PE programs and provide more opportunities for professional development. This could include workshops, seminars, and access to modern teaching resources that help instructors stay current with best practices in PE.
- Strengthen Teacher Competence:** Regular training programs should be implemented to equip PE teachers with the latest pedagogical techniques and tools. Encouraging peer learning and mentoring among teachers could also help in sharing effective strategies and practices.

3. **Increase Student Engagement:** Develop initiatives that encourage students to engage in physical activities outside the classroom. This could include organizing university-wide fitness challenges, intramural sports, or community-based physical activity programs that reinforce the importance of staying active.
4. **Address Implementation Challenges:** Universities should conduct a thorough review of the resources available for PE programs and address any identified gaps. Ensuring that all necessary equipment and facilities are available and in good condition is essential for the effective delivery of PE programs.
5. **Focus on Holistic Development:** PE programs should be designed to not only improve physical fitness but also contribute to the overall well-being of students, including their mental, social, and emotional development. Incorporating activities that promote teamwork, leadership, and stress management could further enhance the holistic impact of PE.
6. **Further Research:** Future studies could explore the long-term impact of PE programs on student outcomes and investigate the effectiveness of specific interventions designed to improve the areas identified in this study. Additionally, qualitative research could provide deeper insights into the experiences and perceptions of students and educators regarding PE programs.

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