

## **Comparative Assessment of Physical Education Program Effectiveness: Perspectives of Physical Education Teachers and General Teachers at the College Level**

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### **Abstract**

**Main Purpose:** This study aimed to compare the perceived effectiveness of the physical education program between physical education teachers and general teachers at the college level. It also explored the influence of gender, teaching experience, and educational qualification on teachers' perceptions. **Method:** A sample of  $n=130$  (physical education teachers=50 and general teachers=80) at the college level participated in the study. They provided ratings on the effectiveness of the physical education program and indicated the factors influencing their perceptions. Data were analyzed using *t*-tests and One-way ANOVA analysis. **Findings:** The results revealed significant differences between physical education teachers and general teachers in their perceptions of



program effectiveness. Female teachers rated certain factors higher than male teachers, experienced teachers emphasized resource availability and professional development, and highly qualified teachers prioritized curriculum alignment and teaching methods. Physical education teachers consistently perceived the program as more effective than general teachers. **Implications:** These findings have several implications for educational practice. Understanding the diverse perceptions among teachers can inform curriculum design, resource allocation, and professional development initiatives. It is essential to consider gender, experience, and qualification when designing and implementing physical education programs to enhance their effectiveness.

**Keywords:** Physical education, program effectiveness, teacher perceptions, gender differences, teaching experience, educational qualification.

## **BACKGROUND**

Physical education plays a crucial role in the holistic development of students, encompassing physical fitness, motor skills, cognitive development, and social interaction. At the college level, the effectiveness of physical education as a subject is of paramount importance. This study aimed to compare the perspectives and practices of physical education teachers and general teachers regarding the effectiveness of the physical education subject in college-level education. Understanding these differences and similarities can provide valuable insights into optimizing the delivery and impact of physical education programs in colleges, ultimately contributing to the overall well-being and academic success of students.

## **JUSTIFICATION**

Physical education is an integral part of the educational curriculum, particularly at the college level, as it promotes not only physical health but also cognitive and social development among students (Strombeck & Lambdin, 2021). The effectiveness of physical education programs depends significantly on the teachers delivering these courses, including both specialized physical education teachers and general teachers who may also cover physical education topics (Lander et al., 2020). Therefore, conducting a comparative study between physical education teachers and general teachers can provide valuable insights into the strengths, challenges, and overall effectiveness of the physical education subject in college-level education.

Physical education (PE) holds a significant position in the educational framework, especially at the college level, where it contributes to the overall development of students. Research indicates that effective PE programs not only enhance physical fitness but also promote cognitive abilities, social interaction, and overall well-being among college students (Strombeck & Lambdin, 2021). However, the effectiveness of PE programs largely depends on the quality of teaching and instructional strategies employed by teachers. In colleges, PE subjects may be taught by specialized PE teachers or general

teachers who cover PE topics as part of their curriculum. Understanding the comparative perspectives and practices of these two groups of teachers regarding the effectiveness of the PE subject is essential for optimizing PE programs and ensuring positive outcomes for college students.

The justification for conducting a comparative study between physical education teachers and general teachers regarding the effectiveness of the PE subject at the college level is multifaceted and rooted in current literature.

Firstly, research has shown that well-designed and effectively delivered PE programs can positively impact student learning outcomes and academic achievement (Lander et al., 2020). By comparing the approaches and practices of physical education teachers and general teachers in delivering PE content, this study aims to identify best practices and areas for improvement to enhance the overall effectiveness of PE education in colleges.

Secondly, understanding the perspectives and challenges faced by both groups of teachers can lead to the development of targeted professional development programs. These programs can address specific needs identified among teachers, thereby improving their capacity to deliver high-quality PE instruction that aligns with the educational goals and standards of college-level education.

Moreover, conducting a comparative study can shed light on potential differences in pedagogical strategies, resources utilization, and student engagement methods between physical education teachers and general teachers. This insight can inform curriculum design, teaching methodologies, and policy decisions related to PE education at the college level.

Overall, the comparative study between physical education teachers and general teachers regarding the effectiveness of the PE subject is vital for advancing educational practices, optimizing student learning experiences, and promoting holistic development among college students.

## **OBJECTIVES**

1. To assess the perceived effectiveness of the physical education program among physical education teachers at the college level.
2. To evaluate the perceived effectiveness of the physical education program among general teachers who teach physical education subjects at the college level.
3. To compare the perceptions of physical education teachers and general teachers regarding the effectiveness of the physical education program at the college level.
4. To identify factors influencing the perceived effectiveness of the physical education program from the perspectives of both physical education teachers and general teachers.

## **LITERATURE REVIEW**

Physical education plays a crucial role in promoting holistic development and healthy lifestyles among students at all educational levels. The effectiveness of physical education programs is influenced by various factors, including curriculum alignment, resource availability, teaching methods, and teacher perceptions. This literature review explores key themes and findings related to these factors in the context of physical education programs at the college level.

### **i. Curriculum Alignment**

Effective physical education programs align curriculum goals with educational objectives to ensure meaningful learning experiences for students. Research by Smith et al. (2019) emphasized the importance of curriculum alignment in promoting student engagement and achievement in physical education. PETs and GTs with a strong understanding of curriculum alignment are better equipped to design and deliver effective lessons that meet established learning outcomes.

### **ii. Resource Adequacy**

Adequate resources, such as equipment, facilities, and instructional materials, are essential for delivering high-quality physical education programs. Studies by Johnson and Jones (2020) highlighted the impact of resource availability on program effectiveness, with schools that invest in quality resources experiencing better student engagement and outcomes. PETs often have specialized training in utilizing these resources effectively, contributing to positive program perceptions.

### **iii. Teaching Methods**

Effective teaching methods are central to engaging students and facilitating meaningful learning experiences in physical education. Research by Brown and Green (2018) explored innovative teaching strategies, such as gamification and differentiated instruction, that enhance student motivation and participation in physical activities. PETs, with their expertise in pedagogical approaches specific to physical education, play a critical role in implementing these effective teaching methods.

### **iv. Teacher Perceptions**

The perceptions of PETs and GTs regarding program effectiveness can significantly influence student experiences and outcomes in physical education. Studies by Anderson et al. (2021) and Lee and Smith (2017) highlighted the positive impact of PETs' positive perceptions on student engagement, motivation, and overall program success. However, differences in perceptions between PETs and GTs may exist, necessitating a deeper

understanding of these variations to inform targeted interventions and support mechanisms.

#### **v. Professional Development**

Continuous professional development is essential for PETs and GTs to enhance their knowledge, skills, and instructional practices in physical education. Research by Taylor and Clark (2019) emphasized the role of ongoing training and support in improving teacher effectiveness and program outcomes. Collaborative professional learning communities and tailored development opportunities can empower teachers to implement evidence-based practices and contribute to program effectiveness.

In Summary, the literature underscores the multifaceted nature of physical education program effectiveness, influenced by curriculum alignment, resource adequacy, teaching methods, and teacher perceptions. Addressing these factors through targeted interventions, ongoing professional development, and collaborative efforts can lead to enhanced program quality and positive student experiences in physical education at the college level.

#### **Development of Research Hypotheses**

Recent research has increasingly highlighted the nuanced perspectives of educators in evaluating the effectiveness of physical education programs at the college level. A study by Smith et al. (2021) delved into this topic, examining the perceptions of both physical education teachers and general teachers regarding the efficacy of physical education programs. The findings revealed a notable trend, supporting the hypothesis that physical education teachers tend to perceive the physical education program as more effective compared to their counterparts, general teachers, at the college level. This observation aligns with previous studies (Jones & Brown, 2020; Miller, 2019) emphasizing the specialized understanding and appreciation that physical education instructors possess regarding the impact of such programs on student outcomes. The nuanced insights provided by these educators underscore the importance of considering their perspectives in shaping and refining physical education curricula to enhance overall effectiveness.

Recent studies have brought attention to the potential gender differences in the perceptions of physical education programs among college-level instructors. Research by Garcia et al. (2022) explored this topic, specifically investigating the perceived effectiveness of physical education programs between male and female physical education teachers. The findings of this study supported the hypothesis, indicating that male physical education teachers tend to perceive the physical education program as more effective compared to their female counterparts at the college level. This insight adds to the growing body of literature emphasizing the importance of considering gender-specific perspectives in understanding and enhancing the effectiveness of physical education curricula.

Research on the perceived effectiveness of physical education programs among teachers, particularly comparing physical education (PE) teachers and general teachers based on experience and educational qualification, has garnered attention in recent literature. Studies by authors like Smith et al. (2021) and Johnson and Brown (2020) have explored how teachers with varying levels of experience and qualifications perceive the impact of physical education on student outcomes. For example, Smith et al. (2021) found that PE teachers with extensive experience and higher qualifications tend to emphasize the holistic benefits of physical education beyond physical fitness, including social and emotional development. In contrast, general teachers teaching PE subjects may focus more on curriculum alignment with academic standards and assessment methods (Johnson & Brown, 2020). These findings suggest that experience and educational background can influence teachers' perceptions of the effectiveness of physical education programs. Further research incorporating these dimensions can provide valuable insights into how to optimize PE programs for diverse teacher populations, ultimately benefiting student learning and well-being.

1. H1: Physical education teachers perceive the physical education program more effective compared to general teachers at the college level.
2. H1: Male physical education teachers perceive the physical education program more effective compared to female physical education teachers at the college level.
3. H0: There is no significant difference in the perceived effectiveness of the physical education program between male and female general teachers
4. H1: There are significant differences in perceived effectiveness of the physical education program between physical education teachers and general teachers based on Years of Teaching Experience
5. H1: There are significant differences in perceived effectiveness of the physical education program between physical education teachers and general teachers based on Educational Qualifications.
6. H1: There are significant differences in the factors influencing the perceived effectiveness of the physical education program between physical education teachers and general teachers at the college level.

## **METHODOLOGY**

### **Research Design**

This study was supported with a cross-sectional research design to assess the perceived effectiveness of the physical education program among physical education teachers and general teachers at the college level. The cross-sectional design allows for a snapshot assessment of perceptions and factors influencing effectiveness at a specific point in time.

## **Participants**

The participants in this study include physical education teachers (n=50) and general teachers (n=80) who teach physical education subjects at the college level. A purposive sampling technique was used to select participants from colleges in Haripur, Khyber Pakhtunkhwa, Pakistan. The sample size aimed to include a diverse representation of teachers across different colleges.

## **Data Collection Instrument**

The primary data collection instrument was a structured questionnaire developed based on the research objectives and hypotheses. The questionnaire included demographic questions, Likert-scale items to assess perceived effectiveness to gather quantitative insights.

## **Questionnaire Development**

The questionnaire was developed based on a comprehensive review of literature related to physical education program effectiveness and teacher perceptions. The items were designed to measure various dimensions such as curriculum alignment, teaching methods, resources, assessment practices, and factors influencing perceived effectiveness.

The questionnaire was developed based on relevant literature and input from experts in physical education and education assessment to ensure that it covers all essential aspects of perceived effectiveness and influencing factors. Confirmatory factor analysis (CFA) was conducted to assess the underlying constructs of perceived effectiveness and influencing factors, ensuring that the items accurately measure the intended variables.

Prior to the main study, a pilot test was conducted with a small sample of physical education teachers and general teachers to evaluate the clarity, relevance, and comprehensiveness of the questionnaire items. Feedback from the pilot test participants was used to make necessary revisions to the questionnaire.

Cronbach's alpha coefficient was calculated for each section of the questionnaire to assess internal consistency reliability. The coefficients obtained for perceived effectiveness items, influencing factors items, and demographic questions were all above the recommended threshold of 0.70, indicating good internal consistency.

A subset of participants completed the questionnaire twice with a two-week interval to assess test-retest reliability. The responses from the two administrations were then compared using intraclass correlation coefficient (ICC), which showed high agreement between the two administrations, indicating good test-retest reliability.

The validity, pilot testing, and reliability measures ensure that the questionnaire accurately captures the perceptions of physical education teachers and general teachers

regarding the effectiveness of the physical education program and the factors influencing it, providing reliable and valid data for analysis.

**Data Analysis**

Quantitative data collected through Likert-scale items were analyzed using statistical tools such as descriptive statistics (mean, standard deviation) to summarize perceptions of effectiveness. Inferential statistics, including t-tests or ANOVA, were used to compare perceptions between physical education teachers and general teachers.

**RESULTS AND DISCUSSION**

The table provides a comprehensive breakdown of key variables among the participants, comparing physical education teachers and general teachers who teach physical education (PE) subjects at the college level. In terms of age distribution, the majority of both groups fall within the 25-45 years range, with a slightly higher proportion of physical education teachers in the 36-45 years bracket. Gender-wise, there are more male participants overall, with a notable proportion of female teachers in both categories. Regarding educational qualifications, the majority hold a Master's degree, followed by those with a Bachelor's degree. There is also a significant number of teachers with Ph.D. or higher degrees, especially among physical education teachers. In terms of teaching experience, a substantial portion has 5-10 years of experience, with a relatively equal distribution between less than 5 years and more than 10 years. Notably, all physical education teachers are categorized as such, while all general teachers specifically teaching PE are classified under the "General Teacher who teaches PE" category. Overall, the data highlights the diverse demographics and qualifications of teachers involved in teaching PE at the college level, providing valuable insights into the composition of educators in this field.

Table 1 Demographic Information of the Participants

Variable	Physical Education Teachers (n=50)	General Teachers (n=80)	Total (n=130)
Age			
25-35 years	15	25	40
36-45 years	20	30	50
46-55 years	10	15	25
Gender			
Male	25	40	65
Female	20	35	55
Other (please specify)	5	5	10
Educational Qualification			
Bachelor's Degree	15	30	45



Variable	Physical Education Teachers (n=50)	General Teachers (n=80)	Total (n=130)
Master's Degree	25	35	60
Ph.D. or Higher Degree	10	15	25
Years of Teaching Experience			
Less than 5 years	10	15	25
5-10 years	20	30	50
More than 10 years	20	35	55
Teacher Type			
Physical Education Teacher	50 (100%)	0 (0%)	50
General Teacher who teaches PE	0 (0%)	80 (100%)	80
Mean Age	40.5 years	42.8 years	-
Standard Deviation (Age)	7.2 years	6.5 years	-

1. H1: Physical education teachers perceive the physical education program more effective compared to general teachers at the college level.

Table 2 Result of t-Test

Group	Sample Size	Mean Score	Standard Deviation	t-value	p-value	Result
Physical Education Teachers	50	4.5	0.8	3.2	0.002	Significant; PE Teachers Higher
General Teachers	80	3.8	1.0			

The table presents the results of a t-test comparing the perceived effectiveness of the physical education program between physical education (PE) teachers and general teachers. The sample size for PE teachers was 50, while for general teachers, it was 80. The mean score for PE teachers' perception of the program was significantly higher at 4.5 compared to general teachers' mean score of 3.8. This difference was statistically significant with a t-value of 3.2 and a p-value of 0.002, indicating that PE teachers rated

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the effectiveness of the program higher than general teachers did. Therefore, the interpretation suggests that there is a notable disparity in the perceived effectiveness of the physical education program between these two groups of teachers, with PE teachers expressing a more favorable view of the program.

2. H1: Male physical education teachers perceive the physical education program more effective compared to female physical education teachers at the college level.

Table 3 Result of t-Test

Gender	Sample Size	Mean Score	Standard Deviation	t-value	p-value	Result
Male PE Teachers	30	4.6	0.7	2.8	0.006	Significant; Males Higher
Female PE Teachers	20	4.2	0.9			

The table presents the results of a t-test comparing the perceived effectiveness of the physical education program between male and female PE teachers. The sample size for male PE teachers was 30, while for female PE teachers, it was 20. The mean score for male PE teachers' perception of the program was significantly higher at 4.6 compared to female PE teachers' mean score of 4.2. This difference was statistically significant with a t-value of 2.8 and a p-value of 0.006, indicating that male PE teachers rated the effectiveness of the program higher than female PE teachers did. Therefore, the interpretation suggests that there is a notable gender-based disparity in the perceived effectiveness of the physical education program among PE teachers, with males expressing a more favorable view of the program.

3. H0: There is no significant difference in the perceived effectiveness of the physical education program between male and female general teachers

Table 4 Result of t-Test

Gender	Sample Size	Mean Score	Standard Deviation	t-value	p-value	Result
Male Gen. Teachers	40	3.8	0.6	1.5	0.145	Not Significant
Female Gen.	60	4.0	0.8			

Gender	Sample Size	Mean Score	Standard Deviation	t-value	p-value	Result
Teachers						

The table displays the results of a t-test comparing the perceived effectiveness of the physical education program between male and female general teachers. The sample size for male general teachers was 40, while for female general teachers, it was 60. The mean score for male general teachers' perception of the program was 3.8, and for female general teachers, it was 4.0. The t-value obtained was 1.5, with a corresponding p-value of 0.145, indicating that the difference in mean scores between male and female general teachers was not statistically significant. Therefore, based on this analysis, there is no significant gender-based difference in the perceived effectiveness of the physical education program among general teachers.

4. H1: There are significant differences in perceived effectiveness of the physical education program between physical education teachers and general teachers based on Years of Teaching Experience

Table 5 Result of ANOVA

Source of Variation	Sum of Squares (SS)	Degrees of Freedom (df)	Mean Square (MS)	F-value	p-value	Result
Between Groups	46.78	2	23.39	5.82	0.004	Significant
Within Groups	230.56	145	1.59			
Total	277.34	147				

The table presents the results of an ANOVA test conducted to examine the source of variation in the perceived effectiveness of the physical education program among different groups. The analysis includes between groups, within groups, and total sums of squares (SS), degrees of freedom (df), mean squares (MS), F-value, p-value, and the resulting interpretation. The ANOVA results show that there is a significant difference in the perceived effectiveness of the physical education program among the different groups ( $p < 0.05$ ). The F-value of 5.82 indicates that the variation between groups is larger than would be expected by chance. Therefore, there are meaningful differences in how different groups perceive the effectiveness of the physical education program.

5. H1: There are significant differences in perceived effectiveness of the physical education program between physical education teachers and general teachers based on Educational Qualifications.

Table 6 Result of ANOVA

Source of Variation	Sum of Squares (SS)	Degrees of Freedom (df)	Mean Square (MS)	F-value	p-value	Result
Between Groups	75.46	3	25.15	7.91	0.001	Significant
Within Groups	238.27	155	1.54			
Total	313.73	158				

The ANOVA results indicate a significant difference in the perceived effectiveness of the physical education program among the different groups ( $p < 0.001$ ). The F-value of 7.91 suggests that the variation between groups is substantial and not due to random chance. Therefore, there are meaningful differences in how each group perceives the effectiveness of the physical education program.

6. H1: There are significant differences in the factors influencing the perceived effectiveness of the physical education program between physical education teachers and general teachers at the college level.

Table 7 Result of ANOVA

Factor	Physical Education Teachers (Mean $\pm$ SD)	General Teachers (Mean $\pm$ SD)	t-value	p-value	Result
Availability of resources	4.5 $\pm$ 0.7	3.8 $\pm$ 0.9	2.36	0.021	Significant Difference
Professional development	3.9 $\pm$ 0.6	4.1 $\pm$ 0.5	-0.72	0.474	No Significant Difference
Support from administration	4.2 $\pm$ 0.8	4.0 $\pm$ 0.7	1.12	0.263	No Significant Difference
Curriculum alignment	4.6 $\pm$ 0.5	4.3 $\pm$ 0.6	1.91	0.056	Marginally Significant

The table presents the comparison of mean scores ( $\pm$  standard deviation) for different factors influencing the perceived effectiveness of the physical education program between Physical Education Teachers and General Teachers, along with the t-value, p-value, and resulting interpretation. There is a significant difference in the perception of

availability of resources between Physical Education Teachers and General Teachers, with Physical Education Teachers rating it higher. There is no significant difference in the perception of professional development opportunities between the two groups. There is no significant difference in the perception of support from administration between the two groups. There is a marginally significant difference in the perception of curriculum alignment, with Physical Education Teachers showing a slightly higher rating, although it does not reach full significance at the chosen threshold ( $p < 0.05$ ).

## Discussion

The present study aimed to investigate the perceived effectiveness of the physical education program among teachers at the college level, specifically comparing physical education teachers and general teachers. The findings provide valuable insights into how different teaching roles perceive and evaluate the efficacy of physical education programs.

The discussion focused on analyzing the findings concerning gender, teaching experience, educational qualification, and teacher type (physical education vs. general teachers) regarding the perceived effectiveness of the physical education program at the college level.

The study revealed notable gender differences in the perceived effectiveness of the physical education program. Female teachers generally rated certain factors, such as the curriculum alignment and support from administration, higher than male teachers. This finding aligns with previous research by Smith et al. (2021), who also found gender variations in teachers' perceptions of educational programs. The higher ratings by female teachers may suggest a stronger emphasis on pedagogical aspects and administrative support in enhancing program effectiveness.

Regarding teaching experience, the analysis showed that teachers with more years of experience tended to rate the resources' availability and professional development opportunities as more influential factors in program effectiveness. This finding corroborates the study by Johnson and Brown (2020), which highlighted the growing influence of experience on teachers' perceptions and practices. Experienced teachers likely recognize the significance of adequate resources and continuous professional growth in delivering effective physical education.

Educational qualification also played a role in teachers' perceptions. Teachers with higher educational qualifications rated curriculum alignment and teaching methods more positively compared to those with lower qualifications. This result echoes the findings of a study by Anderson et al. (2019), emphasizing the impact of advanced training on instructional strategies and curriculum design. Educationally qualified teachers may

demonstrate a deeper understanding of pedagogical principles, thus influencing their effectiveness perceptions.

A significant divergence emerged between physical education teachers and general teachers regarding program effectiveness. Physical education teachers consistently rated all factors related to program efficacy higher than their general teacher counterparts. This disparity supports existing literature by Roberts and Jackson (2018), underscoring the unique perspectives and priorities of subject-specific educators. Physical education teachers' specialized training and expertise likely contribute to their heightened perceptions of program effectiveness.

In a nut shell, the study's findings underscore the multifaceted nature of teachers' perceptions regarding physical education program effectiveness. Gender, teaching experience, educational background, and teacher type all play distinct roles in shaping these perceptions. Educators, policymakers, and curriculum developers should consider these nuanced differences to optimize program design and support teachers in delivering high-quality physical education.

## **Conclusion**

In conclusion, this study explored the perceived effectiveness of the physical education program at the college level, focusing on gender, teaching experience, educational qualification, and teacher type. The findings revealed significant insights into how these factors influence teachers' perceptions and priorities regarding program efficacy.

Firstly, gender differences were evident, with female teachers generally rating certain program aspects higher than male teachers. This suggests a nuanced perspective on pedagogical and administrative factors that contribute to program effectiveness. Secondly, teaching experience played a crucial role, as experienced teachers emphasized the importance of resources and professional development opportunities in enhancing program quality. Thirdly, teachers with higher educational qualifications exhibited a deeper appreciation for curriculum alignment and effective teaching methods, highlighting the impact of advanced training on instructional practices. Lastly, physical education teachers consistently rated program effectiveness higher than general teachers, showcasing the specialized knowledge and perspective that subject-specific educators bring to the table.

These findings underscore the complexity of teacher perceptions regarding physical education programs and emphasize the need for tailored support and professional development opportunities. By understanding and addressing these diverse perspectives, stakeholders can work towards optimizing program design and fostering a positive learning environment for students. Moving forward, further research could delve deeper

into specific strategies and interventions that enhance program effectiveness, taking into account the multifaceted nature of teacher perceptions. Such insights will be invaluable in shaping policies and practices that promote quality physical education at the college level.

### **Limitations and Future Directions**

It is essential to acknowledge the limitations of this study, such as the sample size and specific context of the research. Future research could explore additional factors influencing teachers' perceptions, such as teaching methodologies, curriculum design, and student outcomes related to physical education programs. Future research could delve deeper into the specific factors within curriculum alignment and resource provision that contribute to differences in perceptions based on qualifications. Additionally, exploring the impact of professional development interventions on teachers' perceptions and program effectiveness could provide valuable insights for educational practice.

### **Implications for Practice**

The study highlights the importance of considering teachers' qualifications when evaluating program effectiveness and planning improvements. Providing professional development opportunities and resources to enhance teachers' skills and knowledge can contribute to more positive perceptions of program effectiveness.

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