

UNDERGRADUATE PHYSICAL EDUCATION AND INCLUSIVE SELF-EFFICACY THE ROLE OF UNDERGRADUATE PHYSICAL EDUCATION SYLLABUS IN DEVELOPING INCLUSIVE TEACHING SELF-EFFICACY: A STUDY IN PUNJAB, PAKISTAN

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Abstract

The research was designed to investigate the role of undergraduate physical education (PE) taught curriculum in developing inclusive teaching self-efficacy amongst undergraduate sports sciences and physical education students in Punjab Pakistan. The researcher used stratified random sampling to recruit 2,000 undergraduate sports sciences and physical education students from different universities to participate in this research. The participants completed the Self-Efficacy in Inclusive Physical Education (SEIPE) scale, a fifteen (15) item instrument measuring undergraduate students' confidence in teaching students with diverse learning needs. The results revealed that most of the participants expressed moderate level of self-efficacy, with 52.1% rating themselves "Fairly" and 43.6% "To some extent." Very few (0.8%) indicated absolute confidence in inclusive teaching. An independent samples t-test revealed no significant gender differences in mean SEIPE scores (male $M = 2.39$, $SD = .37$; female $M = 2.40$, $SD = .36$; $t(1998) = -.89$, $p = .37$). The findings of present research suggest that the current undergraduate PE curriculum builds baseline awareness amongst students but does not adequately develops high level inclusive teaching confidence in them. The study emphasizes the need for curriculum reforms embedding Universal Design for Learning (UDL), adaptive practicum experiences, and differentiated instruction strategies.

Keywords: inclusive education, physical education, self-efficacy, pre-service teachers, Pakistan, Universal Design for Learning

Introduction

Inclusive education has emerged as a cornerstone of global educational policy, promoting the participation of all students regardless of ability, disability, gender, or background. For physical education (PE), this challenge is acute: the subject requires adaptation of physical tasks, equipment, and teaching strategies to ensure equitable participation. Teachers' beliefs about their

ability to succeed in inclusive contexts—commonly referred to as *self-efficacy*—are central to whether inclusive practices are successfully implemented.

Bandura's (1997) social cognitive theory conceptualizes self-efficacy as a person's judgment of their capability to organize and execute the courses of action necessary to achieve designated performance. Applied to teaching, teacher self-efficacy reflects confidence in managing diverse classrooms, engaging all students, and adapting instruction to meet students' varied needs. Research consistently shows that teachers with higher self-efficacy adopt more inclusive practices, persist in challenging conditions, and influence positive student outcomes (Savolainen et al., 2022; Yada et al., 2022).

Despite international emphasis on inclusive teacher education, research in Pakistan remains limited, particularly in Physical Education. Undergraduate Physical Education syllabi are often focused on performance and sports science rather than adaptive pedagogy, potentially leaving pre-service teachers underprepared to create inclusive learning environments. This study addresses that gap by examining the role of the PE syllabus in developing inclusive teaching self-efficacy among undergraduate students in Punjab, Pakistan.

Literature Review

Self-Efficacy Theory and Inclusive Education

Bandura's (1997) social cognitive theory situates self-efficacy as a central determinant of human functioning, shaped by mastery experiences, vicarious learning, verbal persuasion, and physiological states. Within teaching, these sources of efficacy operate in specific ways. Successful experiences in managing diverse classrooms strengthen efficacy, whereas repeated difficulties erode it (Pfitzner-Eden, 2016). Observing peers or mentors successfully teach inclusively provides vicarious reinforcement (Tschannen-Moran & Hoy, 2007). Encouragement from supervisors and colleagues contributes to verbal persuasion, while stress management impacts affective states.

Inclusive education frameworks emphasize that teachers must believe in their ability to adapt instruction, employ Universal Design for Learning (UDL), and support learners with special needs (Florian & Black-Hawkins, 2011). Research demonstrates a strong correlation between teachers' self-efficacy for inclusion and their actual instructional practices (Sharma & Loreman, 2014). Teachers with high efficacy are more willing to try differentiated approaches, persist in addressing barriers, and maintain positive expectations for all learners (Sokal & Sharma, 2017).

Teacher self-efficacy and inclusive education

Self-efficacy has been widely recognized as a predictor of teacher effectiveness in inclusive settings. Yada et al.'s (2022) meta-analysis confirmed that higher teacher self-efficacy is positively associated with more favorable attitudes toward inclusion, suggesting that teacher preparation must prioritize efficacy development. Similarly, Sharma, Sokal, Wang, and Loreman (2021) found that teaching efficacy was the strongest predictor of inclusive practice adoption in a multi-national study of pre-service teachers.

Savolainen et al. (2022) further demonstrated that teacher efficacy predicts willingness to teach students with disabilities in mainstream schools, while Gentile et al. (2023) reported that attitudes and self-efficacy strongly influence teachers' use of inclusive Physical Education activities. These findings emphasize the necessity of curriculum interventions that strengthen efficacy beliefs.

Curriculum frameworks and inclusion

Curriculum design plays a pivotal role in cultivating inclusive competence. The Universal Design for Learning (UDL) framework provides guidelines for ensuring that learning goals,

materials, and assessments are accessible and meaningful to all learners (CAST, 2024). However, critiques highlight that UDL often remains theoretical unless embedded in applied coursework and practicum (Almeqdad, 2023). Differentiated instruction, another framework, involves modifying teaching methods to accommodate diverse learning needs. Both approaches require explicit integration into pre-service curricula to translate into classroom practice.

Global challenges in Physical Education teacher preparation

Research on Physical Education teacher education reveals persistent gaps in inclusion training. Bertills et al. (2024) showed that Physical Education teachers frequently report challenges in adapting lessons for students with disabilities, largely due to insufficient training during undergraduate education. Studies across Europe and North America similarly find that inclusive content is inconsistently represented in teacher education curricula (Nash & Norwich, 2010; Sánchez-Serrano et al., 2021). These findings mirror Pakistan's situation, where Physical Education syllabi often prioritize sports science knowledge while neglecting inclusion-focused pedagogy.

Sources of self-efficacy in teacher education

Bandura (1997) identified four sources of self-efficacy: mastery experiences, vicarious experiences, social persuasion, and physiological states. Within teacher education, practicum experiences are especially influential. Sharma et al. (2021) and Yada et al. (2022) highlight that practical exposure to inclusive teaching opportunities enhances confidence more effectively than theory alone. In Pakistan, where inclusive practicum placements are rare, reliance on theoretical instruction may explain why students demonstrate moderate but not high levels of efficacy.

Sources of Self-Efficacy in Physical Education Teachers

PE teachers face unique challenges in inclusive classrooms. Unlike classroom teaching, PE involves physical activity, motor skill learning, and cooperative participation, which may amplify feelings of exclusion for students with disabilities (Haegle & Hodge, 2016). Research identifies several factors influencing PE teachers' self-efficacy for inclusion:

1. **Mastery Experiences** – Successful experiences teaching diverse groups, including students with disabilities, foster confidence. Practicum experiences are especially critical, as they allow pre-service teachers to experiment with inclusive strategies (Lamb et al., 2015).
2. **Vicarious Experiences** – Observing skilled inclusive practitioners models feasible strategies. In PE, this might involve demonstrations of adapted sports or observing mentors conduct inclusive games (Block & Obrusnikova, 2007).
3. **Verbal/Social Persuasion** – Constructive feedback from supervisors, peers, and mentors can reassure pre-service teachers of their ability to handle inclusive classrooms. Mentoring programs are particularly influential (Columna et al., 2017).
4. **Physiological and Affective States** – Anxiety, stress, or uncertainty when teaching students with disabilities can reduce efficacy beliefs. Teacher education programs that provide coping skills and normalize challenges can mitigate these effects (Avramidis et al., 2019).

Curriculum and Inclusive Teacher Preparation

Research highlights that curricula significantly shape teacher efficacy. In developed contexts, undergraduate PE programs increasingly embed inclusive modules, including disability awareness, UDL, and adaptive physical activity training (Wilhelmsen & Sørensen, 2019). However, in many developing countries, including Pakistan, syllabi remain traditional, focusing

heavily on sports performance and neglecting the pedagogical and psychological aspects of inclusive teaching (Ahsan & Sharma, 2018).

Internationally, studies suggest that structured inclusive coursework combined with field experiences has the strongest impact on developing efficacy. For example, Hutzler and Meier (2010) found that PE students who engaged in adapted physical activity courses alongside practicum with children with disabilities reported significantly higher self-efficacy. Similarly, studies in Asia indicate that curriculum reform towards inclusive practices significantly enhances pre-service teachers' confidence in handling diversity (Sharma et al., 2012).

Synthesis and research gap

The reviewed literature establishes a clear link between curriculum design, practicum opportunities, and inclusive teaching self-efficacy. While international research emphasizes the value of UDL, differentiated instruction, and applied practicum, empirical data from Pakistan remain scarce. This study therefore contributes by examining how current PE syllabi influence inclusive efficacy among undergraduate students and identifying areas for curricular reform.

Methodology

Research Method

The researchers employed quantitative research method to conduct the research pertaining to the fact that data collected in quantifiable form allows the examination and establishment of self-efficacy levels with the use of statistical analysis for undergraduate Physical Education students in more precise manner and also allows examining gender differences.

Research design

A cross-sectional survey design was employed. This design allows for examining self-efficacy levels of undergraduate Physical Education students at a single point in time and testing gender-based differences.

Participants

A total of 2,000 undergraduate Physical Education students participated, selected through stratified random sampling across multiple universities in Punjab. Out Of these 2000 participants, 1,394 were male (69.7%) and 664 female (33.2%). Urban residents comprised 65.7% of the sample, with 34.3% from rural backgrounds. Ages ranged from 21–25 years, with the modal group at 23 years.

Table 1 given below presents demographic data by clearly segregating the participants on the bases of gender and their residency area.

Table

1

Demographic Characteristics of the Sample (N = 2,000)

Variable	N	%
Male	1,394	69.7
Female	664	33.2
Urban	1,314	65.7
Rural	686	34.3

Research Instrument

Self-efficacy was measured using the Self-Efficacy in Inclusive Physical Education (SEIPE) scale, a 15-item instrument adapted from Bandura's (1997) self-efficacy guidelines. Items presented scenarios of teaching students with physical, sensory, or behavioral disabilities. Responses were rated on a 4-point Likert scale (1 = Not at all, 4 = Absolutely). Higher scores indicated greater inclusive teaching self-efficacy.

Data analysis

Data were analyzed using SPSS. Descriptive statistics summarized overall efficacy levels. An independent samples *t*-test compared male and female mean scores. Significance was set at $\alpha = .05$.

Results

Overall efficacy levels

The statistical analysis revealed that the majority of participants rated themselves at mid-levels of efficacy: 52.1% “Fairly” whereas: 43.6% “To some extent” rated themselves at the lower levels of efficacy to conduct inclusive physical education class. Only 0.8% selected “Absolutely,” indicating high confidence in conducting inclusive physical education class.

Gender comparison

Mean SEIPE scores were nearly identical across gender (male $M = 2.39$, $SD = .37$; female $M = 2.40$, $SD = .36$). The *t*-test confirmed no significant difference ($t(1998) = -.89$, $p = .37$).

Table 2 given below presents overall efficacy distribution of the research participants and gender means.

Table

2

Inclusive Teaching Self-Efficacy Levels and Gender Comparison

Measure	Male	Female	Total
Mean SEIPE score (SD)	2.39 (.37)	2.40 (.36)	2.39 (.37)
High confidence (%)	0.9	0.7	0.8
Moderate confidence (%)	95.2	95.7	95.4
Low confidence (%)	3.9	3.6	3.8

Discussion

This study shows that while the undergraduate Physical Education syllabus in Punjab fosters moderate inclusive teaching self-efficacy, it falls short of producing consistently high confidence. The distribution heavily concentrated in the “Fairly” and “To some extent” categories indicates that students feel partially prepared but lack mastery-level assurance.

The absence of gender differences suggests that curricular exposure affects male and female students equally. This finding aligns with Sharma et al. (2021), who reported no significant gender effects in efficacy for inclusive practices across countries.

International literature underscores that high efficacy requires structured practicum and applied exposure (Bertills et al., 2024; Gentile et al., 2023). The present findings suggest that Pakistani syllabi may be too theoretical, insufficiently embedding inclusive practicum or adaptive Physical Education modules.

Curriculum reform should prioritize:

1. **Applied practicum** in inclusive Physical Education settings.
2. **Integration of UDL and differentiation** into Physical Education coursework.
3. **Collaboration with special education departments** to create interdisciplinary teaching opportunities.

These recommendations align with international calls for competency-based inclusive teacher education (Almeqdad, 2023; Yada et al., 2022).

Conclusion

The undergraduate Physical Education syllabus in Punjab contributes to moderate inclusive teaching self-efficacy but does not achieve high levels of confidence among pre-service teachers. Strengthening the syllabus with practicum, UDL, and differentiated instruction is essential to ensure future Physical Education teachers are prepared to foster equitable participation for all learners. Developing inclusive teaching self-efficacy among Physical Education teachers requires intentional curricular and pedagogical strategies. While Bandura's four sources of efficacy remain foundational, their operationalization in undergraduate programs is uneven, particularly in Punjab, Pakistan. Addressing these gaps through curriculum reform, experiential learning, and faculty development can significantly enhance the preparation of future Physical Education teachers. By embedding inclusive values within the undergraduate syllabus, Punjab, Pakistan can move towards more equitable, accessible, and empowering physical education for all learners.

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