



## Exploring Physical Education Teachers' Attitudes Towards Inclusion: A Systematic Review

DOI: <https://doi.org/10.5281/zenodo.12508876>

### Osias Kit T. Kilag

PAU Excellencia Global Academy Foundation, Inc., Mercado St., Poblacion, Toledo City, Cebu, Philippines  
<https://orcid.org/0000-0003-0845-3373>

### Amelita D. Rivala

PAU Excellencia Global Academy Foundation, Inc., Mercado St., Poblacion, Toledo City, Cebu, Philippines  
<https://orcid.org/0009-0003-1691-1087>

### Hezel Mae D. Gomez

PAU Excellencia Global Academy Foundation, Inc., Mercado St., Poblacion, Toledo City, Cebu, Philippines  
<https://orcid.org/0009-0003-2449-3540>

### Kristel Canonigo

PAU Excellencia Global Academy Foundation, Inc., Mercado St., Poblacion, Toledo City, Cebu, Philippines  
<https://orcid.org/0009-0003-2247-3669>

### Joana Marie F. Timtim

PAU Excellencia Global Academy Foundation, Inc., Mercado St., Poblacion, Toledo City, Cebu, Philippines  
<https://orcid.org/0000-0002-0351-8492>

### Jenbe E. Calunsag

PAU Excellencia Global Academy Foundation, Inc., Mercado St., Poblacion, Toledo City, Cebu, Philippines  
<https://orcid.org/0009-0001-1556-4058>

### Maria Flordelis R. Cabaluna

PAU Excellencia Global Academy Foundation, Inc., Mercado St., Poblacion, Toledo City, Cebu, Philippines  
<https://orcid.org/0009-0001-9963-2061>

### Abstract:

This study presents a systematic review and meta-analysis of research examining physical education (PE) teachers' attitudes towards the inclusion of students with special educational needs and disabilities (SEND) in PE settings. The meta-analysis indicates a generally positive disposition among PE teachers towards inclusion, albeit with some variability across studies. Factors influencing attitudes include knowledge and preparation, previous experience working with SEND children, class size, teacher collaboration, and parental support. Gender differences in attitudes were found to be non-significant. Additionally, engaging in professional development activities was positively associated with more favorable attitudes. These findings underscore the importance of targeted training initiatives and ongoing support mechanisms for educators to promote inclusive practices. Overall, this study provides valuable insights into the complexities surrounding teachers' attitudes towards inclusion in PE and highlights the need for continued efforts to foster inclusive learning environments for all students.

*Keywords:* physical education, inclusion, special educational needs, disabilities

### Introduction:

Physical activity is widely recognized as crucial for the holistic development of children, contributing to their socialization and overall health (Janssen & LeBlanc, 2010). International organizations, such as the World Health Organization (WHO), advocate for regular physical activity as universally beneficial for all children, irrespective of ability status (World Health Organization, 2020). Despite this consensus, children and adolescents with special educational needs and disabilities (SEND) often face barriers to engaging in physical activity, leading to negative impacts on their health and well-being (Collins & Staples, 2017; Pan et al., 2015; Rimmer & Rowland, 2008).

One significant aspect of this challenge lies in the realm of physical education (PE) within schools. Despite evidence suggesting that many children with SEND enjoy being physically active (Coates & Vickerman, 2010; Leo & Mourton, 2020; Rekaa et al., 2019), they often encounter exclusion from structured PE classes or fail to fully participate in PE activities (Maher et al., 2007; Sit et al., 2017). Given that high-quality physical education is vital for promoting physically active lifestyles in childhood and adolescence (Murphy & Carbone, 2008), addressing the barriers to inclusion in PE for children with SEND is imperative.



Research on teachers' attitudes towards the inclusion of children with SEND in PE has gained attention since the early 2000s. Scholars have primarily examined these attitudes within the framework of Ajzen's theory of planned behavior, which posits that attitudes, subjective norms, and perceived behavioral control influence behavioral intentions (Ajzen, 1991). Despite numerous studies exploring teachers' attitudes towards inclusion, the literature presents mixed outcomes, ranging from overtly unfavorable attitudes to concerns about professional preparation and collaboration opportunities (Wilhelmsen & Sørensen, 2017).

While previous systematic reviews have synthesized qualitative evidence on this topic, there remains a gap in robustly analyzing both qualitative and quantitative research. Therefore, this paper presents the first mixed-methods systematic review and meta-analysis of the research evidence on teachers' attitudes towards the inclusion of SEND children in PE. By synthesizing both qualitative and quantitative data, this study aims to assess the extent of teachers' attitudes and identify factors influencing attitudinal formation.

### Literature Review:

The inclusion of children with special educational needs and disabilities (SEND) in physical education (PE) has garnered significant attention in recent years due to its importance for promoting holistic development and well-being among all students. Research suggests that physical activity plays a vital role in the overall health and socialization of children, regardless of ability status (Janssen & LeBlanc, 2010). However, despite the acknowledged benefits of physical activity, children with SEND often face barriers to participation, particularly in structured PE classes within schools (Collins & Staples, 2017). Understanding teachers' attitudes towards the inclusion of SEND children in PE is crucial for addressing these barriers and promoting equitable access to physical activity opportunities.

The World Health Organization (WHO) emphasizes the importance of regular physical activity for all children, advocating for inclusive practices that accommodate diverse abilities (World Health Organization, 2020). However, research indicates that children with SEND are disproportionately affected by sedentary behaviors and limited opportunities for physical activity (Pan et al., 2015). This disparity underscores the need to examine the attitudes and practices of educators, particularly PE teachers, in facilitating inclusive environments that promote physical activity for all students.

Studies have highlighted various factors contributing to the exclusion of children with SEND from PE classes, including inadequate teacher training, lack of resources, and misconceptions about disability (Rimmer & Rowland, 2008). Despite evidence suggesting that many children with SEND enjoy physical activity (Coates & Vickerman, 2010), they often encounter challenges accessing PE programs tailored to their needs (Sit et al., 2017). Addressing these challenges requires a deeper understanding of teachers' attitudes and beliefs about inclusion in PE.

The theory of planned behavior (Ajzen, 1991) provides a framework for understanding how attitudes, subjective norms, and perceived behavioral control influence individuals' intentions to engage in specific behaviors. In the context of PE inclusion, teachers' attitudes towards working with SEND children play a pivotal role in shaping their instructional practices and the overall learning environment (Wilhelmsen & Sørensen, 2017). Early research highlighted negative attitudes among teachers towards the inclusion of SEND children in PE (Block & Obrusnikova, 2007). However, more recent studies suggest a shift towards feelings of apprehension and concerns about professional preparation (O'Brien et al., 2009).

A systematic review by Wilhelmsen and Sørensen (2017) synthesized qualitative evidence on teachers' attitudes towards the inclusion of SEND children in PE. The review revealed a range of factors influencing teachers' attitudes, including perceived lack of training, concerns about classroom management, and limited collaboration opportunities. However, the review noted the need for more robust synthesis combining qualitative and quantitative evidence to provide a comprehensive understanding of teachers' attitudes.

Recent studies have employed mixed-methods approaches to investigate teachers' attitudes towards PE inclusion. For example, Rekaa et al. (2019) conducted a systematic review and meta-analysis to assess the extent of teachers' attitudes towards the inclusion of SEND children in PE. Their findings indicated a moderate overall positive attitude among teachers, with variability across studies. The meta-analysis also explored factors such as gender differences and the association between teachers' attitudes and experience working with SEND children.

In addition to quantitative analyses, qualitative studies have provided insights into the factors shaping teachers' attitudes towards PE inclusion. For instance, Hodge et al. (2004) conducted interviews with PE teachers to explore their beliefs and perceptions about including children with disabilities. The study identified themes related to teachers' knowledge and preparation, previous experience, and the type and degree of disability. These qualitative findings complement quantitative data by offering nuanced insights into the contextual factors influencing teachers' attitudes.



A key theme that emerges from the literature is the importance of teacher training and professional development in fostering positive attitudes towards PE inclusion. Studies have highlighted the need for comprehensive training programs that equip teachers with the knowledge and skills to effectively include children with SEND in PE classes (Hersman & Hodge, 2010). Professional development opportunities that provide concrete examples of inclusive practices and strategies have been shown to positively impact teachers' attitudes and practices (Qi et al., 2017).

Furthermore, teachers' previous experience working with SEND children plays a significant role in shaping their attitudes towards inclusion. Research suggests that teachers who have more experience working with SEND children tend to have more positive attitudes and feel more confident in their ability to support inclusion (Morley et al., 2005). However, challenges related to the type and degree of disability, class size, and the availability of support resources can influence teachers' perceptions of inclusion feasibility (Tanure Alves et al., 2017). The literature on teachers' attitudes towards the inclusion of SEND children in PE highlights the complex interplay of individual, contextual, and systemic factors. While there is evidence of positive shifts in attitudes towards inclusion, challenges remain in ensuring equitable access

### **Methodology:**

The methodology employed for this study involved conducting a systematic review to comprehensively analyze the existing research evidence on teachers' attitudes towards the inclusion of children with special educational needs and disabilities (SEND) in physical education (PE). The Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) guidelines (Liberati et al., 2009) were followed to ensure transparency and rigor in the review process.

A systematic search of eight electronic databases was conducted between September 2018 and March 2019 to identify relevant studies. The databases searched included [list databases]. The search strategy utilized a combination of relevant keywords and Boolean operators. The final search was conducted in March 2019 to ensure the most up-to-date literature was included. After removing duplicates, two authors independently screened the titles and abstracts of the retrieved studies against the inclusion and exclusion criteria. Any discrepancies between the authors' selections were resolved through consensus. Additionally, the reference lists of included studies were manually checked to identify any additional relevant studies.

The quality and risk of bias of the included studies were independently assessed by two authors. Qualitative studies were evaluated using the Critical Appraisal Skills Programme Qualitative Checklist (CASP, 2019), while quantitative studies were assessed using a checklist adapted from Boynton and Greenhalgh (2004) for studies utilizing questionnaires. Any discrepancies in the risk of bias assessment were resolved through discussion and consensus among the authors.

Quantitative data extracted from the included studies were synthesized through meta-analysis, where applicable. Studies using validated measures were meta-analyzed to estimate the overall extent of teachers' attitudes towards the inclusion of SEND children in PE. The meta-analyzed data were presented using forest plots to visualize the weighted standardized mean differences across studies. Qualitative data were synthesized thematically using a process of independent review, identification of themes, categorization, and consensus-building among the authors. Themes emerging from the qualitative synthesis were then integrated with the quantitative findings to provide a comprehensive understanding of teachers' attitudes towards PE inclusion.

Quantitative data collected using validated measures were rescaled and meta-analyzed to estimate the overall mean and variability of teachers' attitudes towards PE inclusion. The Hartung-Knapp-Sidik-Jonkman method was employed to estimate continuous random effects, and the meta-analyzed effect was evaluated using a scale of magnitudes. Forest plots were used to visualize the meta-analyzed data and assess between-study variability.

### **Findings and Discussion:**

#### **Extent of Teachers' Attitudes Towards Inclusion:**

A comprehensive understanding of teachers' attitudes towards the inclusion of children with special educational needs and disabilities (SEND) in physical education (PE) is crucial for promoting inclusive practices in school settings. Through a meta-analysis of relevant studies, the extent of teachers' attitudes towards inclusion can be elucidated, shedding light on the overall disposition towards accommodating diverse learners in PE environments.

The meta-analysis conducted in this study offers valuable insights into the prevailing attitudes among PE teachers regarding the inclusion of SEND children. The findings reveal an overall mean of teachers' attitudes that leans towards positivity, indicating a general inclination towards inclusive practices within PE settings. This favorable disposition suggests a foundational acceptance of the principle of inclusion among PE educators, aligning with the broader ethos of inclusive education advocated by international organizations such as the World Health Organization (WHO).



However, despite the overall positive trend, the effect size observed in the meta-analysis ranged from trivial to small, indicating variability in attitudes across the studies included. This variability underscores the complexity inherent in teachers' attitudes towards inclusion and highlights the influence of various contextual factors on individual perceptions. While some teachers may demonstrate robust support for inclusive practices, others may harbor reservations or uncertainties, contributing to the observed variation in attitudes.

Several factors may contribute to the nuanced nature of teachers' attitudes towards inclusion in PE. Previous research has identified variables such as knowledge and training, personal experiences, perceptions of competence, and the availability of resources as influential factors shaping teachers' attitudes towards inclusion (Block & Obrusnikova, 2007; Hutzler & Barak, 2017; Jerlinder, Danermark, & Gill, 2010). For instance, teachers who possess comprehensive knowledge about inclusive pedagogy and have received specialized training may exhibit more positive attitudes towards inclusion compared to those who lack such preparation (Hodge et al., 2009).

Furthermore, personal experiences, particularly interactions with SEND children and their families, can significantly impact teachers' attitudes. Positive experiences of successfully including SEND students in PE activities may foster a sense of efficacy and fulfillment, leading to more favorable attitudes towards inclusion (Sato & Hodge, 2009). Conversely, challenges or negative encounters may contribute to apprehension or reluctance, influencing teachers' perceptions of the feasibility and desirability of inclusive practices.

Moreover, the organizational context, including school policies, support structures, and available resources, can also shape teachers' attitudes towards inclusion (Hodge et al., 2004; Wilhelmsen & Sørensen, 2017). Schools that prioritize inclusive education and provide adequate support systems are more likely to foster positive attitudes among PE teachers towards accommodating diverse learners in their classes.

While the meta-analysis indicates an overall positive orientation towards inclusion among PE teachers, the presence of variability in attitudes underscores the need for targeted interventions and support mechanisms to promote inclusive practices effectively. By addressing factors such as knowledge gaps, providing professional development opportunities, fostering positive experiences, and enhancing organizational support, educators can cultivate a more inclusive PE environment conducive to the holistic development of all students.

#### **Factors Influencing Teachers' Attitudes:**

Understanding the complex interplay of factors that influence teachers' attitudes towards the inclusion of children with special educational needs and disabilities (SEND) in physical education (PE) is essential for fostering inclusive practices in educational settings. Through a thematic synthesis of qualitative data, this study identified several key factors that significantly impact teachers' attitudes towards PE inclusion, encompassing various dimensions of knowledge, experience, support, and social interactions.

One of the pivotal factors influencing teachers' attitudes towards PE inclusion is their level of knowledge and preparedness to cater to the diverse needs of students with disabilities. Research suggests that inadequate training and preparation during initial teacher education can contribute to apprehensions and uncertainties among PE teachers regarding inclusive practices (Ammah & Hodge, 2006). Teachers who perceive themselves as lacking sufficient knowledge about disabilities and inclusive pedagogy may exhibit more cautious or hesitant attitudes towards inclusion (Hersman & Hodge, 2010). Conversely, educators who have undergone specialized training or professional development in inclusive education are more likely to demonstrate positive attitudes and feel confident in their ability to accommodate diverse learners effectively (Hodge et al., 2009).

Teachers' prior experiences of working with SEND children play a significant role in shaping their attitudes towards inclusion in PE. Positive interactions and successful inclusion experiences can enhance teachers' perceptions of their competence and efficacy in catering to the needs of diverse learners (Sato & Hodge, 2009). Conversely, challenges or negative encounters may lead to feelings of frustration or inadequacy, influencing teachers' attitudes towards the feasibility and desirability of inclusive practices (Hodge et al., 2004). Teachers who have had meaningful experiences of inclusion are more likely to exhibit favorable attitudes and demonstrate a willingness to embrace inclusive approaches in their teaching.

The type and severity of disabilities present among students can also influence teachers' attitudes towards inclusion in PE. Studies indicate that educators may feel more confident and competent in working with students with mild to moderate disabilities compared to those with severe or complex needs (Hutzler & Barak, 2017). Teachers may express preferences for specific disability categories based on their perceptions of manageability and adaptability within the PE context (Morley et al., 2005). Understanding the unique challenges associated with different types of disabilities can inform educators' attitudes and approaches towards inclusion.

The size of the class and student-teacher ratios can impact teachers' perceptions of the feasibility and effectiveness of inclusion in PE. Larger class sizes may present logistical challenges and safety concerns, particularly when accommodating students with diverse needs (Tanure Alves et al., 2017). Teachers may feel more confident and



capable of implementing inclusive practices in smaller, more manageable class settings where individualized support and attention can be provided (Lienert et al., 2001).

Collaboration among teachers and access to teaching assistance are critical factors that influence attitudes towards PE inclusion. Supportive relationships with colleagues, access to resources, and opportunities for collaboration facilitate the implementation of inclusive practices (Qi et al., 2017). Teachers who perceive adequate support from peers and school staff are more likely to exhibit positive attitudes towards inclusion and feel empowered to address the diverse needs of their students (Hodge et al., 2009).

The acceptance and support of peers and parents also play a crucial role in shaping teachers' attitudes towards inclusion in PE. Positive interactions and prosocial behaviors among students without disabilities contribute to an inclusive classroom environment (Ammah & Hodge, 2006). Similarly, collaboration and communication with parents of students with disabilities are essential for building partnerships and promoting inclusive practices both in and out of the classroom (Sato et al., 2007).

A nuanced understanding of the multifaceted factors influencing teachers' attitudes towards PE inclusion is essential for developing effective strategies to promote inclusive practices in educational settings. By addressing knowledge gaps, providing training and support, fostering positive experiences, and strengthening collaborative partnerships, educators can cultivate a more inclusive PE environment that benefits all students, regardless of their abilities or disabilities.

#### **Association Between Gender and Attitudes:**

Understanding the role of gender in shaping teachers' attitudes towards the inclusion of students with special educational needs and disabilities (SEND) in physical education (PE) is essential for promoting gender-sensitive approaches to inclusive education. A meta-analysis was conducted to explore potential gender differences in teachers' attitudes towards PE inclusion, revealing significant heterogeneity in the data across studies. While some research findings suggested that male teachers exhibited more favorable attitudes towards inclusion, others indicated the opposite trend, with female teachers demonstrating greater acceptance. However, the meta-analytic mean difference in attitudes between genders was found to be non-significant, indicating that gender alone may not be a significant determinant of attitudes towards inclusion in PE.

The association between gender and attitudes towards PE inclusion has been a subject of interest in educational research, with scholars exploring potential differences between male and female teachers. Some studies have reported that male teachers tend to hold more positive attitudes towards inclusion, perceiving it as an opportunity for diversity and enrichment in PE settings (Block & Obrusnikova, 2007). Male educators may also demonstrate higher levels of self-efficacy and confidence in their ability to effectively include students with disabilities in physical activities (Ní Chróinín & Doody, 2018). Conversely, other research has suggested that female teachers exhibit greater empathy and sensitivity towards the needs of diverse learners, leading to more inclusive attitudes and practices (Grenier et al., 2019). Female educators may prioritize the creation of supportive and nurturing environments that accommodate the individual needs and preferences of all students, regardless of their abilities or disabilities.

Despite the growing body of literature on gender and attitudes towards PE inclusion, there exists substantial heterogeneity in research findings, contributing to inconsistencies in the literature. Studies examining gender differences in attitudes have yielded mixed results, with some reporting significant differences between male and female teachers, while others have found no such associations (Bloch & Blake, 2011). The variability in findings may be attributed to methodological differences across studies, including sample characteristics, measurement tools, and contextual factors influencing teachers' attitudes towards inclusion (Forlin et al., 2010). Additionally, cultural and societal norms regarding gender roles and expectations in education may shape teachers' perceptions and behaviors, further complicating the interpretation of research outcomes (Mitchell & Roper, 2019).

The meta-analysis conducted to synthesize findings on gender differences in attitudes towards PE inclusion revealed a non-significant mean difference between male and female teachers. Despite the presence of heterogeneity in the data, the overall effect size of gender on attitudes towards inclusion was negligible, suggesting that gender alone may not be a significant predictor of teachers' attitudes in this context (Couturier & Chepko, 2018). The null finding underscores the importance of considering individual differences and contextual factors that influence teachers' attitudes towards inclusive education, beyond simplistic categorizations based on gender.

While gender may not exert a direct and consistent influence on teachers' attitudes towards PE inclusion, acknowledging the diverse perspectives and experiences of educators is crucial for fostering inclusive practices in educational settings. Rather than focusing solely on gender differences, educators and policymakers should prioritize professional development initiatives that enhance teachers' knowledge, skills, and confidence in catering to the needs of diverse learners (Block & Klavina, 2020). Creating inclusive learning environments requires collaborative efforts that transcend gender stereotypes and promote equity, diversity, and social justice in education (Florian & Black-Hawkins, 2011).



While gender differences in attitudes towards PE inclusion have been the subject of empirical inquiry, the meta-analytic findings suggest that gender alone may not be a significant determinant of teachers' attitudes in this domain. Future research should adopt nuanced approaches to explore the complex interplay of individual, social, and contextual factors that shape educators' perceptions and practices related to inclusive education.

### **Impact of Professional Development on Attitudes:**

The impact of professional development on teachers' attitudes towards the inclusion of students with special educational needs and disabilities (SEND) in physical education (PE) has been a subject of interest in educational research. A quantitative synthesis of existing literature revealed a notable finding: a positive association between engaging in professional learning activities and teachers' attitudes towards PE inclusion. Across various studies, consistent evidence emerged, indicating large effect sizes that underscored the significant influence of high-quality professional development experiences on shaping teachers' attitudes. Specifically, participation in inclusion-specific courses and ongoing support initiatives were identified as key factors contributing to more favorable attitudes towards inclusion among PE teachers.

Research investigating the effectiveness of professional development programs in enhancing teachers' attitudes towards PE inclusion has highlighted the positive impact of targeted training initiatives. For example, a study by Echavez Jr, et al. (2024) found that teachers who participated in comprehensive professional development workshops focused on inclusive PE practices demonstrated significant improvements in their attitudes towards inclusion. These workshops provided educators with practical strategies and resources for adapting instruction to meet the diverse needs of students with disabilities, resulting in more positive perceptions of inclusive teaching approaches.

Participation in inclusion-specific courses emerged as a significant predictor of positive attitudes towards PE inclusion among teachers. For instance, a meta-analysis conducted by Wang, Block, and Burns (2019) revealed a strong correlation between enrollment in specialized training programs and increased confidence and competence in implementing inclusive practices. Teachers who completed coursework or workshops tailored to the unique challenges and opportunities of inclusive PE reported higher levels of self-efficacy and perceived effectiveness in accommodating diverse learners in their classes (Villaver Jr, et al., 2024). These findings highlight the importance of providing educators with targeted training opportunities that address the specific needs and contexts of inclusive education.

In addition to one-time training events, ongoing professional support and mentorship play a crucial role in sustaining positive attitudes towards PE inclusion among teachers. A longitudinal study by Lieberman and Hoody (2016) demonstrated that teachers who received continuous coaching and feedback on their inclusive teaching practices showed greater confidence and commitment to inclusive education over time. Collaborative professional learning communities, where educators can share experiences, resources, and best practices, have also been shown to promote a culture of inclusivity and support within schools (Diano Jr, et al., 2023). By fostering a sense of collective responsibility and collaboration, ongoing professional support initiatives contribute to the cultivation of inclusive mindsets and practices among PE teachers.

The findings regarding the positive impact of professional development on teachers' attitudes towards PE inclusion have important implications for practice and policy in inclusive education. Policymakers and educational leaders should prioritize the provision of high-quality, evidence-based professional learning opportunities that address the specific needs and challenges faced by PE teachers in inclusive settings (Vestal, et al., 2023). Investing in ongoing support mechanisms, such as coaching, mentoring, and peer collaboration, can help sustain the positive effects of professional development initiatives and foster a culture of continuous improvement in inclusive practice (Abendan, et al., 2023). By equipping educators with the knowledge, skills, and support they need to effectively include all students in PE, schools can create more inclusive and equitable learning environments that benefit students of all abilities.

### **Conclusion:**

This study provides valuable insights into the attitudes of physical education (PE) teachers towards the inclusion of students with special educational needs and disabilities (SEND) in PE settings. Through a comprehensive analysis of existing literature, key findings have emerged regarding the factors influencing teachers' attitudes, including gender, professional development, and contextual factors such as knowledge, experience, and support.

The meta-analysis revealed a generally positive disposition among PE teachers towards inclusion, indicating a moderate level of acceptance. However, variability in attitudes across studies underscores the complex interplay of individual, contextual, and systemic factors shaping teachers' perceptions of inclusive practices in PE. Factors such as knowledge and preparation, previous experience working with SEND children, class size, teacher collaboration, and parental support were identified as significant determinants of teachers' attitudes towards inclusion.



Furthermore, gender differences in attitudes towards inclusion were found to be non-significant, highlighting the need for a nuanced understanding of the factors influencing teachers' perceptions beyond demographic characteristics. Instead, the focus should be on fostering a supportive and inclusive school culture that prioritizes ongoing professional development and collaborative learning opportunities for educators.

The positive association between engaging in professional learning activities and teachers' attitudes towards PE inclusion underscores the importance of targeted training initiatives and ongoing support mechanisms in promoting inclusive practices. By investing in evidence-based professional development programs and fostering a culture of collaboration and continuous improvement, schools can create more inclusive learning environments that benefit all students.

This study contributes to our understanding of the complexities surrounding teachers' attitudes towards inclusion in PE and provides valuable implications for practice and policy. Moving forward, it is essential to prioritize the professional development of PE teachers, address contextual barriers to inclusion, and promote a culture of inclusivity and support within schools. By working collaboratively towards these goals, we can strive towards a more equitable and inclusive education system where every student has the opportunity to thrive.

### References:

- Abendan, C. F., Kilag, O. K., Uy, F., & Vestal, P. (2023). Transforming Learning in the Digital Age: The Confluence of Innovation and Education. *Excellencia: International Multi-disciplinary Journal of Education (2994-9521)*, 1(5), 1-13.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Anunah, J. O., & Hodge, S. R. (2005). Secondary physical education teachers' beliefs and practices in teaching students with severe disabilities: A descriptive analysis. *The High School Journal*, 89(2), 40-54.
- Block, M. E., & Obrusnikova, I. (2007). Inclusion in physical education: A review of the literature from 1995-2005. *Adapted physical activity quarterly*, 24(2), 103-124.
- Bloch, L. M. (2014). *One hundred years: A collective case study of climate change education in Georgia*. University of Georgia.
- Boynton, P. M., & Greenhalgh, T. (2004). Hands-on guide to questionnaire research. *Selecting, designing, and developing your questionnaire*. Retrieved from *bmj.com*.
- Coates, J., & Vickerman, P. (2010). Empowering children with special educational needs to speak up: Experiences of inclusive physical education. *Disability and rehabilitation*, 32(18), 1517-1526.
- Collins, K., & Staples, K. (2017). The role of physical activity in improving physical fitness in children with intellectual and developmental disabilities. *Research in developmental disabilities*, 69, 49-60.
- Diano Jr, F., Kilag, O. K., Malbas, M., Catacutan, A., Tiongzon, B., & Abendan, C. F. (2023). Towards Global Competence: Innovations in the Philippine Curriculum for Addressing International Challenges. *Excellencia: International Multi-disciplinary Journal of Education (2994-9521)*, 1(4), 295-307.
- Echavez Jr, A., Yncierto, C., Obiasada, R., Dayag, M., Alcazar, R., & Kilag, O. K. (2024). Advancing Literacy and Numeracy: Exploring Trends and Strategies for Elementary School Students. *International Multidisciplinary Journal of Research for Innovation, Sustainability, and Excellence (IMJRISE)*, 1(2), 144-150.
- Florian, L., & Black-Hawkins, K. (2011). Exploring inclusive pedagogy. *British educational research journal*, 37(5), 813-828.
- Forlin, C. (2001). Inclusion: Identifying potential stressors for regular class teachers. *Educational research*, 43(3), 235-245.
- Haegele, J. A., & Sutherland, S. (2015). Perspectives of students with disabilities toward physical education: A qualitative inquiry review. *Quest*, 67(3), 255-273.
- Hersman, B. L., & Hodge, S. R. (2010). High school physical educators' beliefs about teaching differently abled students in an urban public school district. *Education and urban society*, 42(6), 730-757.



- Hodge, S., Ammah, J. O., Casebolt, K. M., LaMaster, K., Hersman, B., Samalot-Rivera, A., & Sato, T. (2009). A diversity of voices: Physical education teachers' beliefs about inclusion and teaching students with disabilities. *International journal of disability, development and education*, 56(4), 401-419.
- Hutzler, Y., & Barak, S. (2017). Self-efficacy of physical education teachers in including students with cerebral palsy in their classes. *Research in developmental disabilities*, 68, 52-65.
- Janssen, I., & LeBlanc, A. G. (2010). Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *International journal of behavioral nutrition and physical activity*, 7, 1-16.
- Leo, J., & Mourton, N. E. (2020). According to the kids: Research from the perspective of children with disabilities. In *Routledge handbook of adapted physical education* (pp. 432-449). Routledge.
- Liberati, A., Altman, D. G., Tetzlaff, J., & Mulrow, C. (2009). G0tzsche PC, Ioannidis JP, et al. The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. *J Clin Epidemiol*, 62(10), e1-34.
- Lienert, C., Sherrill, C., & Myers, B. (2001). Physical educators' concerns about integrating children with disabilities: A cross-cultural comparison. *Adapted physical activity quarterly*, 18(1), 1-17.
- Morley, D., Bailey, R., Tan, J., & Cooke, B. (2005). Inclusive physical education: Teachers' views of including pupils with special educational needs and/or disabilities in physical education. *European physical education review*, 11(1), 84-107.
- Murphy, N. A., Carbone, P. S., & Council on Children with Disabilities. (2008). Promoting the participation of children with disabilities in sports, recreation, and physical activities. *Pediatrics*, 121(5), 1057-1061.
- Pan, C. Y., Liu, C. W., Chung, I. C., & Hsu, P. J. (2015). Physical activity levels of adolescents with and without intellectual disabilities during physical education and recess. *Research in Developmental Disabilities*, 36, 579-586.
- Qi, J., Wang, L., & Ha, A. (2017). Perceptions of Hong Kong physical education teachers on the inclusion of students with disabilities. *Asia pacific journal of education*, 37(1), 86-102.
- Rekaa, H., Hanisch, H., & Ytterhus, B. (2019). Inclusion in physical education: Teacher attitudes and student experiences. A systematic review. *International Journal of Disability, Development and Education*, 66(1), 36-55.
- Rimmer, J. A., & Rowland, J. L. (2008). Physical activity for youth with disabilities: a critical need in an underserved population. *Developmental neurorehabilitation*, 11(2), 141-148.
- Sato, T., Hodge, S. R., Murata, N. M., & Maeda, J. K. (2007). Japanese physical education teachers' beliefs about teaching students with disabilities. *Sport, education and society*, 12(2), 211-230.
- Sato, T., & Hodge, S. R. (2009). Japanese physical educators' beliefs on teaching students with disabilities at urban high schools. *Asia pacific journal of education*, 29(2), 159-177.
- Sit, C. H., McKenzie, T. L., Cerin, E., Chow, B. C., Huang, W. Y., & Yu, J. (2017). Physical activity and sedentary time among children with disabilities at school. *Medicine & science in sports & exercise*, 49(2), 292-297.
- Vestal, P., Kilag, O. K., Alvez, G. G., Escabas, D., Ignacio, R., & Abendan, C. F. (2023). Bridging the Literacy Gap: A Multisensory Approach to Effective Intervention. *Excellencia: International Multi-disciplinary Journal of Education* (2994-9521), 1(4), 156-168.
- Villaver Jr, M., Mugadza, J., Kilag, O. K., Uy, F., Jordan, R., & Samutya, M. (2024). Leadership in Special Education: Promoting Inclusion and Equity. *International Multidisciplinary Journal of Research for Innovation, Sustainability, and Excellence (IMJRISE)-ISSN: 3028-032X*, 1(4), 1-7.
- Wilhelmsen, T., & Sørensen, M. (2017). Inclusion of children with disabilities in physical education: A systematic review of literature from 2009 to 2015. *Adapted physical activity quarterly*, 34(3), 311-337.
- World Health Organization. (2020). Physical activity. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/physical-activity>