

**Realities for Student Success: Exploring Experiences of Paraeducators Supporting
Students with Disabilities in the Physical Education Setting**

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by
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Dedication

To my younger self, you are so much stronger than you know, and you will do great things.

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To my advisor, Dr. Block, thank you for your support since the beginning of my grad school journey in 2016. Thank you for always offering help when I felt I needed to have the answers on my own. There were several “great days” along the way, but you helped me push through each time.

To my committee, thank you for your time in supporting my growth throughout this program. I know I have come a long way, with your help, and will continue to learn and grow. Thank you.

To my wonderful family, thank you for always believing in me when most of the time I did not believe in myself. Thank you for encouraging me all these years that I can in fact achieve great things.

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Realities for Student Success: Exploring Experiences of Paraeducators Supporting Students with Disabilities in the Physical Education Setting

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Paper 1- Systematic Review of the Literature on Paraeducators Supporting Students with Disabilities in Physical Education

Over the past ten years, there have been roughly 129,000 more paraeducators hired in the United States to work directly in special education classrooms, about a 32% increase (U.S. Department of Education (DOE), Office of Special Education Programs, 2021). In 2010 the DOE reported there were approximately 391,000 full time paraeducators employed in public schools, increasing to approximately 520,000 in 2019. Paraeducators, also commonly known as instructional assistants, educational assistants, or teacher assistants, are defined in The No Child Left Behind Act of 2001 as support staff who provide instructional services under the direct supervision of a teacher (US Department of Education, 2003). Paraeducators often support students with disabilities in general education as well as in special education classrooms. Federal law has two requirements paraeducators must meet. First they must have a high school diploma or equivalent. Second they must meet one of the following qualifications: completed at least two years of study at an institution of higher education, obtain an associate's (or higher) degree, or pass formal state/ local academic assessment demonstrating knowledge of and the ability to assist in instructing students in reading, writing and or mathematics (U.S. Department of Education, 2003). While these outlined qualifications mandate a certain level of education, they do not specify the required content area of the higher education degree. Furthermore, the specifics of the training requirements for paraeducators are left to the discretion of local educational agencies (LEAs). This results in a difference of standards and practices from one state to another and often hiring paraeducators with no special education experience or training. This review of literature aims to explore the role of these paraeducators specifically in physical education (PE).

The paraeducator's role in special education has shifted over the past twenty years from exclusively supporting students with disabilities in self-contained classrooms to supporting students in general education classes including physical education (Causton & MacLeod, 2021). Physical education poses unique challenges for students with disabilities with large spaces, double and triple classes in the gym resulting in 50-75 children in the gym at the same time, and noisy and sometimes chaotic settings. Physical education teachers are usually too busy directing and supervising all the students to help the few students with disabilities who are included in their classes. Physical educators also report that they lack the competence and confidence to support students with disabilities (Rekaa et al., 2019). The solution to this challenge is often met by having paraeducators in the gymnasium. The intention is to have paraeducators support their students with disabilities ensuring students can access all aspects of the program, with accommodations as needed to develop motor, sport, and fitness skills as well as experience important social interactions with peers (An & Meany, 2020; Goodwin, Watkinson, and Fitzpatrick, 2003).

It is often assumed that paraeducators are trained in how to support their students with disabilities who are included in general education classes, including physical education. Unfortunately, paraeducators are rarely provided professional development or formal training on how to support students with disabilities (Giangreco et al., 2005; Malmgren et al., 2005). This lack of training is particularly troublesome when it comes to paraeducators facilitating social interactions with peers in physical education, often resulting in paraeducators unintentionally creating barriers to interactions with peers without disabilities (Bryan et al., 2013; Davis et al., 2017; Morrison & Gleddie, 2019; Swensen & Haegele, 2020). Despite the significant increase of paraeducators, especially in PE classes, no systematic review has focused on this topic. The most

recent reviews on the current literature were within special education research. Giangreco et al. (2010) reviewed research on paraeducators supporting students with disabilities in general education settings, with results highlighting the challenges and barriers revolving around paraeducators in terms of role, training, retention, and supervision. More recently, Knowles et al., (2022) conducted a review of literature to synthesize what current asynchronous learning opportunities exist for paraeducators. This review evaluates asynchronous online learning opportunities for paraeducators, emphasizing the need for content that accurately reflects their roles and needs. Key findings include the identification of a variety of programs aligned with Council for Exceptional Children's *Core Competencies for Special Education Paraeducators* (Council for Exceptional Children, 2022). The review emphasized the importance of involving content experts in the training process to ensure practical skill application and timely feedback. Highlighting that while online resources are valuable for paraeducator development, future research should focus on the impact of these trainings on skill implementation and student outcomes. The study advocates for a balanced approach to professional development, combining online resources with direct supervision and feedback.

Over the last two decades, there has been an increase in the amount of research and practical papers focusing on paraeducators supporting students with disabilities in physical education. Majority of this research has utilized a qualitative research design to determine the perceptions and experiences of physical educators and paraeducators (measured separately) as well as perceived training needs (Bryan et al., 2013; Davis et al., 2007; Higgins, 2021; Swenson & Haegele, 2022; Maher, 2016; Morrison & Gleddie, 2019; Pedersen et al., 2014). Other research has explored attitudes of students with disabilities towards their physical education experiences and their perceptions of their paraeducators (Goodwin et al, 2022; Haegele et al.,

2019; Herold & Dandolo, 2023). Finally, one paper explored perceptions of both paraeducators and physical educators together about the roles and effectiveness of paraeducators (Morrison & Gleddie, 2019). Collectively these studies have begun the conversations about the role of paraeducators and the challenges they face when attempting to support and provide the best possible experience for students with disabilities in general physical education. While this body of literature continues to grow, there has been no effort to collect, organize and analyze these studies. Therefore, the purpose of this review is to critically analyze and synthesize, for the first time, the existing literature on paraeducators supporting students with disabilities in the field of physical education from the period 2000-2023. This review provides a comprehensive understanding of how effectively the field has addressed these challenges, where the research has stagnated, examine solutions that have been proposed, and provide guidance for progress. Finally, it aims to set a foundation for future research that goes beyond cataloging issues, focusing instead on developing, implementing, and evaluating sustainable and impactful strategies for improvement.

Methods

Inclusion and Exclusion Criteria

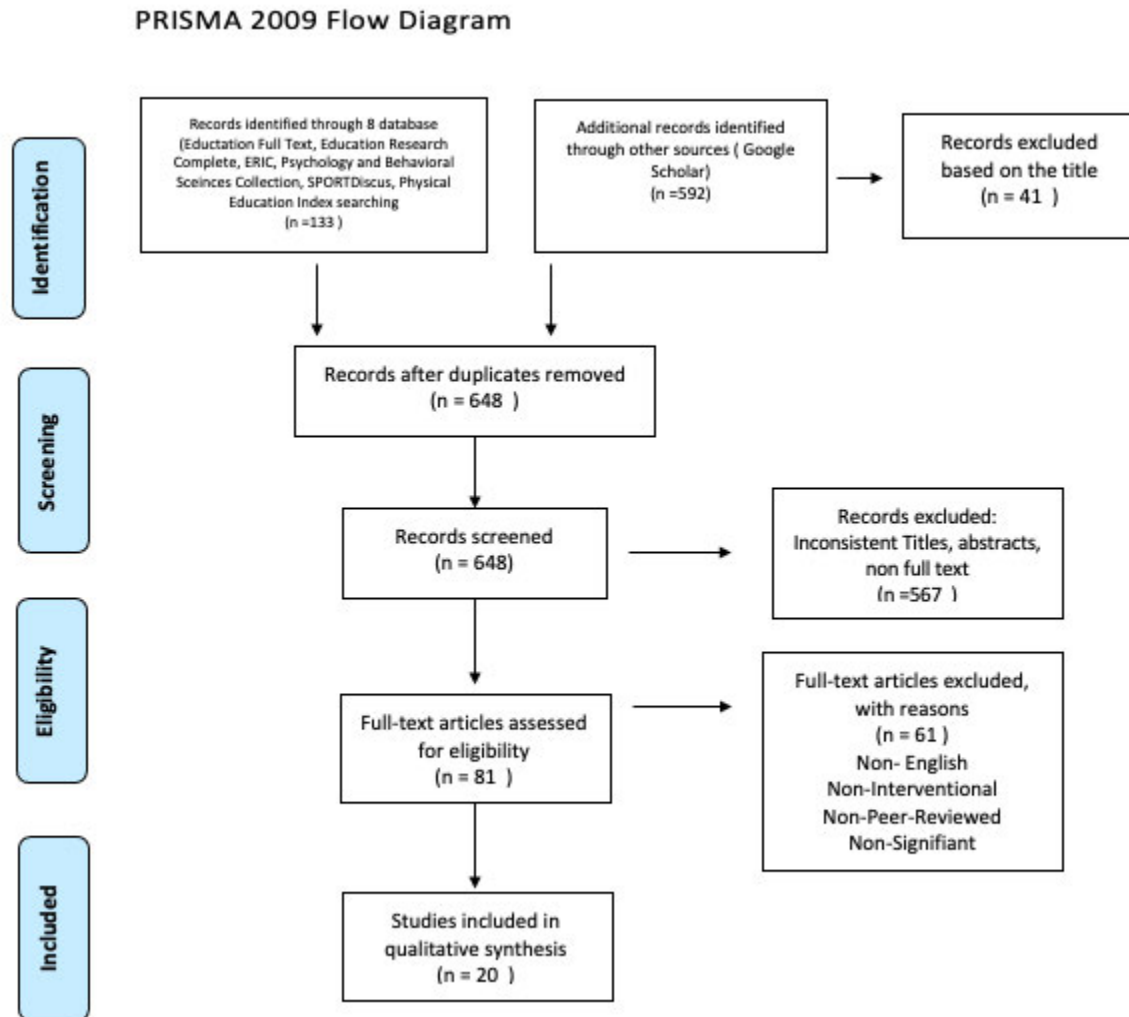
The following were used as inclusion criteria for this study: (a) studies conducted between the years 2000-2023, (b) paraeducator perception or the perceptions of other professionals towards paraeducators specific to physical education, or perceptions of students with disabilities specific to their experience with the paraeducators in GPE, (c) peer-reviewed, and (d) although initial search included only works in the United States, due to the low amount of literature, manuscripts from other countries were included that have a similar education system as the United States, utilize paraeducators, and include students with disabilities in general physical education were

included (n= 11). Manuscripts were excluded if they (a) focused on paraeducators but not specific to GPE, (b) were specific to inclusion practices in GPE but did not include information on paraeducators, or (c) focused on the perceptions of students with disabilities but not addressing their experiences in GPE specific to their paraeducators.

Search Procedure

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2009) were used to conduct the search including (a) systematic search of peer-reviewed literature across nine databases, (b) manually searching through reference lists of most relevant articles, and (c) consultation with other experts to identify any key findings that may have been missed. Between May and August 2022, systematic searches were conducted across nine electronic databases, ERIC, Education Full text, Education Index, Education Research Complete, Psychology and Behavioral Sciences Collection, Physical Education Index, APA PsychINFO, Google Scholar, and SPORTDiscus. The search was focused on the last twenty years of literature on the subject from 2002-2022 using the following terms: "paraeducator," "educational assistant," "teacher aid," or "instructional assistant" combined with "physical education," "adapted physical education," "special education," "professional development,"

"training," and "continuing education."



Results

This search yielded 20 articles that met the inclusion criteria. Of those articles, eight were from the United States and twelve from other countries: UK (n=7), Canada, (n=4), Australia (n=1). All the identified research were descriptive studies with eight using surveys, nine using interviews and focus groups, and three using observations. These studies documented the perceptions of paraeducators (n= 4), general physical education teachers (n= 3), students with disabilities (n=3), or a combination of the previous perceptions including administrators, special

education teachers, and special education coordinators (n=10). After careful analysis of the selected studies, the following three recurring themes were identified: 1) training needs, 2) ambiguous roles, and 3) value and motivation.

Training Needs

There were 12 articles on the theme of *training needs for paraeducators working in physical education*. Paraeducators need practical training to perform tasks such as implementing visual and behavioral supports, making modifications, and deciding on-the-spot instructional strategies for students with disabilities, (Da Fonte & Capizzi, 2015; Tiangco & Broer, 2005; Giangreco et. al., 2001). Unfortunately, documented in several early studies and continuing in the 2010s, research suggests that there continues to be significant training needs for paraeducators, and that professional development specific to physical education is rarely available (Bryan et al., 2013; Carter et al., 2009; Davis et al., 2007; Higgins, 2021; Riggs & Mueller, 2001; Swenson & Haegele, 2022; Zobell & Hwang, 2020). To illustrate, Davis et al. (2007) studied paraeducators' (n=76) perceptions of their roles and responsibilities within the physical education setting. Of the 76 paraeducators that responded to the questionnaire, 61% (n=46) perceived that they were adequately trained to support students with disabilities in GPE. However, only 12 (16%) responded that they actually received specific training in general physical education with students with disabilities. Davis and his colleagues also reported that 90% (N=68) of the total respondents indicated the willingness to participate in PE-specific training, and 82% (N=62) expressed the desire for more training in the PE content. Emphasizing even though the majority of the paraeducators did not receive training in PE, they still felt adequately prepared to support students in physical education.

Similarly, Swenson & Haegele (2022) also found that paraeducators perceived and rated their ability higher to perform specific tasks within physical education and reported a different perception from PE teachers. The authors surveyed 118 physical educators and 87 paraeducators (N=205) on their perceptions of role clarity, role ability, and training needs of paraeducators working in general physical education. Interestingly, physical educators rated paraeducators' ability to perform specific tasks consistently lower than paraeducators rated themselves, including assisting with planning, sharing potential IEP ideas, and assessing students' physical skills in PE (Swenson & Haegele, 2022).

Morrison & Gleddie (2019) reported that for Canadian public schools, training for inclusive physical education (IPE) was extremely rare. In this qualitative case study, authors collected data through observations, field notes, one-to-one interviews, and focus group interviews with six participants (three physical educators and three “educational” assistants). Participants all worked at the same school in a Western Canadian Province. Criteria for participants included current practices supporting students with disabilities in inclusive physical education (IPE), practitioners at some point in their careers participating in a professional development opportunity, and overall interest in sharing their experience with inclusion. Results indicated that IPE professional development opportunities were rare for both educational assistants and PE teachers. Paraeducators reported that they would "take any professional development" they could get, noting that they are typically not involved in professional development provided by the school district. Physical educators mentioned they attended specific PE professional development. However, it was up to them to take the initiative to ask professional development providers specific questions for strategies for working with students with disabilities, and many were focused solely on core classroom settings. Finally, researchers

found that participants recognized they had never attended a professional development together or had the opportunity to collaborate. Physical educators said this lack of collaboration resulted in lack of communication of the paraeducator's role and how the paraeducator could provide the best learning environment for their students with disabilities.

Most research was from the perception of practitioners but there is a growing body of literature including the perception of students with disabilities. Looking specifically at students with visual impairments, Conroy and Lieberman (2013) surveyed 143 professionals and parents who work with or have a child (or children) who are visually impaired. The focus of the study was to determine what training exists to support this population in the classroom and the PE setting and what future training is needed. Of the participants (n=143), 12% were paraeducators (n=17); 30% were PE teachers (n=44); 26% were teachers of students with VI (n=37); 9% were adapted PE teachers (n=13); 7% were physical therapists (n=11), and 15% were listed as "others" (21). Results found that 61% (n=87) of participants reported that paraeducators were not trained to work with students with a VI specifically in the PE setting. In addition, only 22 participants reported that paraeducators were trained in safety and modifying activities in physical education. The authors also noted that many GPE teachers rely on paraeducators to provide primary instruction, including modifications of activities, even though they are untrained in working with students with VI and are not trained to support physical education.

Studies consistently show that while paraeducators feel they are somewhat prepared, there is little to no opportunities for specific training on PE content. Additionally, there is a discrepancy between their self-perceived abilities and the ratings given by physical educators, identifying an absence of collaborative professional development opportunities to improve communication and relationships.

Roles and Responsibilities

There were nine articles exploring perceptions of GPE teachers, paraeducators, special educators, and administrators on the role of paraeducators in PE (Bryan et al., 2007; Davis et al., 2007; Morrison & Gleddie, 2019; Swensen & Haegele, 2020; Goodwin et al., 2022). Results found that paraeducators' role in PE is often ambiguous and undefined leaving paraeducators to "learn on the go," causing confusion and ultimately affecting the experience of children with disabilities (Bryan et al., 2017; Goodwin et al., 2022). In addition, paraeducators' lack of defined roles by school districts and administration interferes with paraeducators assisting students with disabilities "as needed." When deciding their role, paraeducators demonstrate positions of "protector from bullying, mother, friend, and teacher" (Giangreco, 2005). The support and benefits for students of having the paraeducator are often lost because they are not being utilized correctly (Giangreco, 2021).

Bryan and colleagues (2013) discovered through interviews and observations that there were vast differences in what information was given to paraeducators regarding their role in PE. They included the perceptions of paraeducators ($n=4$), general PE teachers ($n=4$), special education teachers ($n=3$), and adapted PE teachers ($n=4$) working at the middle school level. Both paraeducators and PE teachers expressed they were not provided an explanation of the role of the paraeducator to support students with disabilities. All the physical educators reported that they were never given information about the role of the para in PE or on how to utilize and work with the para. The paraeducators interviewed said they were provided a vague definition of their role with no clear guidance with expectations on how to support students with disabilities in PE or how to collaborate with PE teachers. Several studies found that both paraeducators themselves and physical educators defined the the role of the paraeducator in PE as keeping the student safe and managing on-task behavior (Bryan et al., 2013; Davis et al., 2007; Haegele et al., 2019;

Higgins, 2021; Lieberman & Conroy, 2013; Pedersen, Cooley, & Rottier, 2014). Which often caused restrictions and barriers to students with disabilities being included in PE.

The individuals with visual impairments from Haegele et al. (2019) recalled restricted participation due to safety concerns of the paraeducator. In this study, Haegele and his colleagues used the interpretative phenomenological analysis (IPA) method to investigate the opinions of visually impaired adults regarding paraeducator assistance during their PE classes when they were in school. IPA is a qualitative technique that aims to comprehend how individuals perceive their personal and social environment and the importance of these experiences. Participants were intentionally chosen based on specific criteria, such as having a visual impairment during their K-12 education, attending an integrated setting, and having received paraeducator support during integrated physical education classes. Every participant (n= 9) reported that safety was the most significant restriction of their involvement, even though the students with visual impairments did not feel the profound concern for safety and the need for restrictions were necessary. Other participants expressed frustration with the poor quality of paraeducator support where support sometimes inhibited social interactions and other times where support was needed but limited.

Participants from Goodwin et al. (2022) reported similar feelings in terms of restricted participation due to safety. Student perceptions were also the focus of this interpretive phenomenological analysis including adults with physical disabilities (n=5) reflecting on their experiences with paraeducators throughout their time in the public school system in Western Canada (2022). Three participants had part-time support (one being an on-call paraeducator), and two with full-time support until 10th grade. Participants reported paraeducators restricted their participation in many PE activities due to safety concerns. Participants further noted that having a full time para in PE was a “complete turn-off” for their peers and often resulted in isolation

from peers, particularly in later grades. In contrast, paraeducators interviewed by Haycock and Smith (2011) in the UK were seen as a positive influence by PE teachers. The study involved focus groups with 12 secondary PE teachers (5 males, 7 females) who were employed across five secondary schools in northwest England. Researchers explored how PE worked collaboratively with learning support assistants (LSAs) to support students with disabilities in PE. PE teachers reported that LSAs were a “second pair of hands,” and PE teachers were relieved to have para support students with disabilities in PE. Having the support of LSAs who knew the student with disabilities was viewed as particularly important to PE teachers who said they often did not have sufficient information to meet the needs of students with disabilities in their PE programs.

Ambiguity and inconsistency regarding the role of paraeducators in physical education (PE) of unclear definitions and guidelines from school administrations, lead to varied interpretations of their roles. This ambiguity can result in restricted participation and inclusion for students with disabilities in PE classes. While some physical educators view paraeducators positively as valuable support in the classroom, the overall inconsistency in role definition and training limits the potential benefits and effectiveness of paraeducators in enhancing the PE experience for students with disabilities.

Collaboration, Motivation, and Value

Six articles described the lack of collaboration between paraeducators and other practitioners in school, directly impacting the motivation of paraeducators (Hall et al., 2015; Higgins, 2021; Maher, 2016; Morrison & Gleddie, 2019, Pedersen et al., 2014; Vickerman & Blundell, 2012). To illustrate, Pedersen and colleagues (2014) surveyed 14 health and PE teachers who taught students with disabilities from Tasmania, Australia, about their sense of self-

efficacy collaborating with paraeducators. Most PE teachers reported overall low levels of self-efficacy when completing tasks (13 items on the survey) associated with teaching students with disabilities. However, more experienced physical educators said they rely on the para and regularly ask for input on behavior management techniques that work with specific students with disabilities. The authors discussed the low response rate of this survey as one limitation. Of the 450 invitations sent, only 29 responded, with only 14 completing the survey. However, the majority of the PE teachers reported being "satisfied" (n=7) or "very satisfied" (n=5) with paraprofessional support when teaching students with disabilities.

Morrison & Gleddie (2021) used a hermeneutic approach, a research method to gain a deeper understanding of one's experience that impacts future experience, to gain insight to the environment and interactions of educational assistants (EAs) and inclusive physical education teachers (IPE). Following four, full-day observations, researchers interviewed each participant about their experiences with IPE. After individual interviews, EAs and teacher's from the same school participated in a small focus group to discuss their experiences in context together (Morrison & Gleddie, 2021). There were three cases included in the interpretive case study design including two elementary generalists (general education teacher), three IPE teachers, and three EAs. Three key issues emerged: (1) how training and background education, practical experiences, and support from other EAs contribute to IPE implementation, (2) how past physical education experiences and current engagement impact teaching/assisting in IPE, and (3) how planning and activity choices influence student participation. Both teachers and EAs in the study reported limited training and felt unprepared in IPE creating challenges to collaboration. One teacher expressed that there is a lack of consistency in the amount of participation with the EAs with one para on the sideline while others would be involved modifying and would try to

learn by observing the PE teacher. PE teachers reported value in the knowledge the EA had on accommodating students with disabilities, Interestingly, PE teachers reported it was appropriate for the EA to work with the student away from the rest of the class.

In a study conducted by Vickerman and Blundell (2012), 142 LSAs who work in primary, secondary, and special schools in England were surveyed on their experiences working with special education needs students. When LSA's were asked how they perceived the effectiveness of their relationships with PE teachers, 10.8% responded neutrally, 29.2% felt the relationship was fairly effective; and 55.4.% indicated they thought the relationship was very effective. Additionally, 38.3% of the LSAs commented that they felt value in their role when they were engaged in the planning, preparation and delivery of learning activities. Five LSA's completed a follow up interview to gain more detailed insight into the general themes and issues arising from the survey. The authors found that collaboration was one of the most notable emerging themes, emphasizing that collaboration and consultation can prepare LSA's to support students with SEN instead of learning activities and trying to determine accommodations on the go. Learning assistants should be utilized as their title suggests, as assistants, not as the lead instructor for students based on the great differences in training. Research has suggested that often paraeducators are providing most of the instructional time that students with disabilities received (Giangreco & Broer, 2005)). When this occurs and there is limited collaboration with PE teachers, students may miss standards and grade level outcome based content due to the lack of training paraeducators have in the field of physical education and pedagogical practices in general.

Hall et al (2015) conducted a study comparing the instruction strategies of paraeducators and physical educators, including two licensed physical educators and two paraprofessionals

with varying degrees of collegiate training, but were not licensed in PE. The licensed PE teachers had completed a bachelor's degree in PETE and all participants had between 5 and 10 years of teaching experience. Researchers used a modified self-assessment feedback instrument (SAFI) to analyze the differences in the type and frequency of feedback between licensed PE teachers and Paras. The SAFI allows teachers to analyze their own verbal and nonverbal feedback to students in order to determine areas of improvement, set personal goals, and monitor their progress, SAFI has been used in studies in physical education, preservice training programs, and extracurricular athletics to encourage growth and reflection. 2 Paraeducators and 2 licensed two PE teachers volunteered for the frequency of specific feedback to be analyzed over 20 lessons. The feedback given by licensed PE teachers and non-licensed paraprofessionals during the first 30 minutes of each class. Overall results found significant differences between the two groups in several categories of feedback. The licensed PE teachers gave more total and positive instructional feedback than the paraprofessionals. In contrast, paraprofessionals gave more negative feedback than licensed PE teachers and also spent the majority of their time engaging in behavior modification with instruction. The study emphasizes that the lead instruction should be provided by the trained physical educator and a paraeducator should support the teacher providing valuable information on the student and what makes them most successful.

Studies reveal that PE teachers often feel unprepared to work with paraeducators due to a lack of clear roles, training, and effective communication strategies. Emphasizing the need for structured collaboration, better training, and clear role definition to enhance the educational experience of students with disabilities in PE.

Discussion

The last 20 years of research on paraeducators supporting students with disabilities in PE has shed light on several key findings and issues. Utilizing surveys, interviews, and observations of key stakeholders including PE teachers, paraeducators, and students with disabilities who experienced PE with the support of a para, the main findings of this research included the need for training, ambiguous role of the paraeducator, and the importance of collaboration between the PE teacher and the para. It was particularly encouraging that some of the research included the voice of students with disabilities who experienced PE with an instructional assistant.

While it is heartening to see that there has been interest in examining the role of the para in supporting students with disabilities in PE, it was disappointing to see the limited number of studies identified for this review, especially in the United States where inclusion has been practiced since the early 1990s. It also was discouraging that the research in this review of literature continues to report some of the same issues with paraeducators seen in PE over the last 20 years with little progress towards solutions. The current review provides similar results to Giangreco and colleague's (2005) earlier literature reviews in special education research, which highlighted persistent issues such as lack of training, ambiguous roles, and limited recognition of paraeducators. The recent studies continue to echo these concerns, demonstrating an ongoing need for effective solutions of paraeducator training, role clarification, and improved collaboration and appreciation within educational settings.

In this review, the topic of training for paraeducators and physical educators was the most recurring theme (n=12). These studies reported that paraeducators received little to no training in how to support students with disabilities in PE, and PE teachers were given little to no training in how to effectively work with and support the para. Lack of training of the para and the PE

teacher will undoubtedly negatively affect students with disabilities, as noted by reports of experiences of students with disabilities in PE in studies by Goodwin et al. (2021) and Haegele et al. (2019). It also is not realistic to expect untrained paraeducators and PE teachers to collaborate and discuss what would be best for the student with a disability without training. Suggested specific topics that should be included in future training and professional developments included for paraeducators should include the purpose PE and more specifically possible goals for students with disabilities in PE, differentiated instruction and making modifications, defining paraeducators' roles, and how the para can assist the PE teacher with planning (Bryan et al., 2013; Davis et al., 2007; Swenson & Haegele, 2022). It should be noted that limited research examining the effects of a one-day professional development has not yielded lasting results, and therefore, there would need to be ongoing and continuous training for paraeducators to help them provide the best support for students with disabilities in PE.

Despite these recommendations, several underlying issues must be addressed prior to implementing training. Firstly, offering training to paraeducators, while beneficial, may inadvertently reinforce their overreliance for delivering primary instruction to students with disabilities. Additionally, when paraeducators are not required specific certification or educational requirements when hired, the scope and potential effectiveness of professional development programs becomes more complicated. Instead of placing instructional responsibilities on paraeducators who have no formal pedagogical training, PE teachers should take the lead in planning and instruction and direct the para in how to support the student with a disability. Giangreco (2022) noted that it would be viewed as unacceptable if students without disabilities received their primary instruction from untrained professionals, yet that is what happens when a paraeducators is for all intents and purposes in charge of the instruction of a

student with a disability. Focus should remain on the utilization of paraeducators in collaboration with physical educators. Additionally, when paraeducators are assigned to students with disabilities without understanding the important social aspects of inclusion for that student in PE, then paraeducators may create unintentional barriers to social inclusion further isolating the student from peers (Goodwin et al., 2022; Giangrecco, 2015). In such circumstances, students with disabilities are not seen as a member of the class as a whole but rather “like me but different from me.” This is particularly true when the student with disabilities comes to PE from a special education classroom, and having a different “teacher” (i.e., the para) only reinforces this difference (Goodwin et al., 2022).

Another important finding from this review is the lack of training of PE teachers and the subsequent lack of knowledge in how to collaborate with paraeducators. The limited support and direction from PE teachers likely originates from the lack of training PE teachers receive in their teacher preparation program as well as lack of in-service training. Studies by Davis and Piletic (2010), and Kwon (2018) analyzing the content of over 150 undergraduate adapted PE courses in the US did not specifically find how to work with paraeducators as part of course content. While not specifically presented in this research, the topic of paraeducators is likely given very limited time in these courses. Even when discussed, the concept of utilizing paraeducators in PE is not something that would resonate with pre-service students who have yet to be out in schools and see students with disabilities and paraeducators in PE. It also is likely that in-services provided to physical educators rarely cover collaboration and supporting paraeducators in PE. The combination of insufficient preparation of paraeducators and limited understanding of academic language can significantly affect communication regarding the support needed for students with disabilities in PE. For example, a PE teacher's attempts to instruct a paraeducator on better

including a student in an activity might fail if the paraeducator does not fully understand the instructions. Similarly, a paraeducator might clearly recognize what a student with disabilities needs, but lack the appropriate language, confidence, or chance to effectively convey these needs to the PE teacher. This communication gap can critically impact the quality of support provided in PE classes.

The topic of paraeducators should continue to be explored given that the studies reviewed in this analysis used small sample sizes. There also appeared to be contradictory perceptions of competency of paraeducators, particularly between paraeducators themselves and the PE teachers. Yet, even when physical educators reported low competency levels of paraeducators, these practitioners still left the instruction up to the paraeducators to work with their students with disabilities. Several practical papers have been published in the last 20 years, outlining key steps to how to facilitate collaboration, relationships, and training for paraeducators and physical educators (Morrison & Gleddie, 2019 B; Lytle et al., 2013; Horton, 2001; Geslak, 2019; Seely, 2020). There also has been one how-to book published on the topic: *Paraeducators in physical education: A training guide to roles and responsibilities*” by Leiberman and colleagues (2007). This text provides in depth information on the topics highlighted in the literature of this review. Unfortunately, based on this literature review, this text and the other practical articles do not seem to have reached schools.

Conclusion

This review has provided a summary and a discussion of existing works on paraeducators supporting students with disabilities in physical education. This review indicated that there has been little increase or extension of studies on paraeducators in the last 20 years. In terms of research designs, most studies were generally classified as descriptive, non-experimental studies.

With several repeated findings, it is suggested that experimental design may advance the recurring themes in the current research, or increase in the quality of these studies. Future research should take a step back and address the over reliance of paraeducators and how PE teachers can take a stronger role. The educational background or decisions to pursue a paraeducator position should be investigated to better understand the characteristics of individuals in the position. Additionally, explore how to support paraeducators to feel more confident in their ability to collaborate and build a stronger relationship with PE teachers.

It also is important for future research to bring all stakeholders together to eliminate the contradictory perceptions between paraeducators, physical educators, special educators, and administrators). This includes, being on the same page of communication strategies, what a successful PE class looks like, what are the roles and responsibilities of each practitioner, and finally how to avoid paraeducators creating unintentional social barriers by being close in proximity to students with disabilities. Finally and most importantly, students should be included in research discussing their experiences with paraeducators participating in PE, and also researchers should focus on how to measure student data to understand the effectiveness of paraeducators.

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Paper 2- A Qualitative Analysis of Paraeducators Experiences Supporting Children with Disabilities in General Physical Education

Introduction

According to the National Center on Education Statistics (2022), 95% of students with disabilities attend regular schools, and 67% of these students spend more than 80% of their day in general education classrooms. The prevalence of students with disabilities in general physical education (GPE) classes has also been notably higher as these students often participate in GPE alongside their non-disabled peers, even if they do not join other general education classes. This is observed particularly among children from specialized classrooms who frequently attend GPE for the opportunity to learn with peers (Government Accounting Office, 2010). Paraeducators (paras), also commonly known as instructional assistants, educational assistants, or teacher assistants, often accompany and support students from special classes who have more significant needs in GPE.

Paras report most of their training and knowledge comes from years of experience working and from veteran paraeducators (Higgins, 2020; Morrison & Gleddie, 2019). Throughout the school day, paraeducators often attend one-on-one with students from the special education classroom. By supporting a student with a disability in a variety of classes and settings, paraeducators often become the most knowledgeable person regarding each student's unique strengths and learning needs, and what works and what does not work in teaching and motivating the student. Even with all this first-hand knowledge and experience, paraeducators' input is often not valued by other professionals on their students' individual education program (IEP) teams (Shyman, 2014). Paras are not always provided the same respect as teachers, a dynamic of social positioning that is seen often in several occupations. Price et al., (2014) explains in the medical field a similar relationship can be observed amongst nurses and doctors.

Despite their unique contribution to patient care and their intimate knowledge of their patients' needs, nurses are often seen as inferior to doctors (Price, 2014). Similarly, despite paraeducators' deeper understanding of the needs and preferences of their students, they are given only limited roles in the IEP process and day-to-day planning (Shyman, 2014).

A particularly troubling dynamic between paraeducators and teachers often takes place in the gymnasium. In a typical scenario, a para accompanies a student with a disability to GPE. The para is given no information about the PE plan for the day or how to support the student with a disability in PE activities. While the para knows the student's needs very well, she does not necessarily know how to help the student be successful in GPE. Should she ask peers to help the child? Should she make modifications to the games? Should she go into the PE closet and find some adapted equipment? Should she pull the student to the side when certain activities are too difficult or unsafe? Unfortunately, the PE teacher rarely provides this type of information to the paraeducators, leaving the paraeducators on their own to make decisions. While responsibility for this scenario should fall on the PE teacher, several studies highlighted that PE teachers reported that they received little to no pre-service or in-service training in working with students with disabilities or how to collaborate with paraeducators (Bryan et al., 2013; Carter et al., 2009; Davis et al., 2007; Haycock & Smith, 2011; Higgins, 2021; Riggs & Mueller, 2001; Swenson & Haegele, 2022; Zobell & Hwang, 2020). Not surprising, many PE teachers said they did not feel prepared to work with students with disabilities, let alone paraeducators (Hardin, 2005; Healy et al., 2017; Herseman & Hodge, 2010; Jerlinder et al., 2010; Perderson, 2022). As a result, the burden of how to support the student with a disability falls on the shoulders of the paraeducator. Thus the purpose of this study is to explore paraeducators' past experiences on their relationship with the PE teacher, and their general experiences supporting students with disabilities in GPE.

The experiences of paraeducators made up less than 50% of participants in most studies conducted on the topic. The few studies that have been conducted only on the paraeducator perception have been survey based inquiries, limiting a more indepth data collection of narratives (Davis et al., 2007; Maher, 2016; Vickerman & Blundell, 2012). This study aimed to grow the perspectives of paraeducators, collecting holistic experiences through semi-structured interviews.

Theoretical Framework

Dewey's "theory of experience (Dewey, 1938)" will be utilized to inform the participants' conceptions and the researchers' interpretations of physical education experiences working with students with disabilities. The theory emphasizes the transformative nature of experiences and their impact on individual learning and growth. Previous studies, such as Schaefer (2013) and Gleddie and Schaefer (2014), have utilized Dewey's theory of experience through narrative inquiry to explore the connections between past educative experiences and their impact on physical education pedagogical practices. According to Dewey (1938) experiences can be categorized as either educative, non-educative, or mis-educative. Educative experiences are those that facilitate further development by reconstructing past *quality* experiences to continue growth of knowledge over a lifespan. Current research emphasizes, professional development sessions that is specific to paraeducators on PE content knowledge and understanding their role in PE can provide a positive educative experience for paraeducators, encouraging further learning(Bryan et al., 2013; Davis et al., 2007; Haegele & Swensen, 2022). Non-educative experiences, while these experiences might develop a teacher's skill or a quick solution, it may also provide inaccurate information, also narrowing possibilities for future growth (Schmidt, 2010). Finally mis-educative experiences hinder the potential for future growth (Dewey, 1938). Further, mis-educative experiences are ones that lack meaningful engagement or ineffective pedagogical

practices. For example current research indicates that paraeducators often face ambiguity in their roles within physical education settings, as they typically do not receive clear instructions or defined responsibilities from PE teachers (Bryan et al., 2007; Davis et al., 2007; Morrison & Gleddie, 2019; Swensen & Haegele, 2020; Goodwin et al., 2022). This uncertainty in their roles can leave paraeducators feeling unmotivated and unsure about how best to support students with disabilities in PE. This situation not only affects the morale of paraeducators but also potentially compromises the quality of support provided to students. This may create a barrier for paraeducators to learn better practices and strategies when past experiences have been negative. Addressing this gap through improved communication and role definition between PE teachers and paraeducators is crucial for enhancing the effectiveness of physical education for students with disabilities. Similarly and as noted earlier, PE teachers receive little to no training in how to support students with disabilities or how to use paraeducators in PE (Pedersen, 2014). This can lead to mis-educative experiences causing PE teachers to have less confidence in their ability and less motivation to try to support and accommodate students with disabilities.

In this study, paraeducators were encouraged to examine and reflect on their past and current experiences supporting students in PE and to evaluate the quality of those experiences—whether they have been educative, non- or mis-educative. This reflection allowed practitioners to gain insights into how their previous experiences have shaped their professional identities and pedagogical practices in physical education. Overall, Dewey's theory of experience provides a comprehensive and reflective framework for understanding the interprofessional experiences in physical education.

Methods

Settings and Participants

A qualitative methodology including semi-structured interviews, was chosen for this study to comprehensively capture the holistic experiences of paraeducators, in order to create a narrative that can be examined through the lens of Dewey's' theory of experience (1938). The semi-structured interviews took place utilizing the Zoom video conference app with ten paraeducators from four different school districts. Ninety-percent of participants were female (n=9), and the average age of participants was 51.9 years of age. The target population was special education paraeducators working at the elementary school level. Each level of physical education is unique to its instruction, content, and state standard objectives; thus, this study only focused on paraeducators working in elementary physical education settings. Elementary PE focuses on building a foundational base of skills that more complex skills can be integrated with. It is a crucial time for students to not only learn psychomotor skills but also social skills. If this foundational base is not created, students may have more difficulty later in their PE program at the secondary level (Goodwin et al., 2022). Thus only paraeducators with elementary PE experiences were included. Other inclusion criteria to participate in the study included the following: (a) elementary level, (b), minimum of three years experiences as a paraeducator at this level, (c) if not currently working as a paraeducator at the elementary level, must have at least three years of previous experience at that level and meet all other inclusion criteria, (c) must accompany child with a disability into general PE for at least one year as a paraeducator. Participants were excluded if they did not meet the inclusion criteria listed above including not supporting a child with a disability in GPE (e.g., only supported child in separate APE setting) and worked in middle or high school.

The recruitment strategy was completed using a convenience sample of central Virginia to gain perspectives from several school districts that may experience similar barriers to including students with disabilities in PE. Researchers recruited no more than three paraeducators from one school district to participate in the study (for a total of ten participants). Recruitment emails included: information and a consent form explaining the study and the purpose, compensation they would receive for participation, and contact information including phone number and email if they are interested in participating in the study with a signed consent form. Interested paraeducators that contacted the researcher were asked for name and email for further scheduling and confirmation of interview time. The researcher may know some participants from her former work affiliations. Some participants were recruited through these work affiliations (i.e., physical education teachers, special education teachers, and other professionals working in elementary schools), who were emailed a copy of the information and consent form to give to their paraeducators. Other participants were identified from graduate students currently enrolled in the Kinesiology for Individuals with Disabilities Master's program at the University of Virginia. These graduate students currently work as adapted physical educators within Albemarle County Schools and work directly with paraeducators. Permission for participation and recording audio was obtained from all participants prior to data collection per University Institutional Review Board Requirements.

Data Collection and Analysis

All interviews took place utilizing the platform Zoom, and audio was recorded and subsequently transcribed. Data collection took place between March 2022 and May 2022. Semi-structured interviews were about 30 minutes long and conducted by the primary researcher. The interviews were guided by a series of open-ended questions focusing on understanding the

participants' experiences in PE, the relationship with the PE teacher, professional development, and more specifically diving into their roles in PE and how they define the “*why*” of PE. These questions serve to guide paraeducators in a reflective manner on previous experiences. Dewey’s theory of continuity of experience (1938) which emphasizes how past experiences inform future actions and decisions, such as the collaboration with PE teachers and participation in professional developments, guided the prompts to allow more open ended responses by paraeducators. Reflecting on their past interactions and experiences, particularly in supporting students with disabilities in PE classes and their engagements with PE teachers, might shape their future practices and the development of professional training. Dewey’s criterion of interaction (1938) was used to better understand not only paraeducators' reflection on how experiences may impact future learning and growth but to understand the overall interactions socially and with the environment. How they may further growth beyond their own perceptions of their past experiences but how interactions may impact collaboration or PD (Morrison and Gleddie, 2021). Interview questions were created in line with current research and expanded to inquire about professional developments and their reflections of experiences supporting students in PE. Questions were piloted with two paraeducators non affiliated with the study for clarity and revisions. After the interviews, transcripts were reviewed and compared to audio recordings to ensure accuracy by the lead researcher.

Data analysis was completed through an inductive analytical approach. In this approach the researcher becomes familiar with the data, chunks the data into themes, continues note taking while interpreting data, analyzes what insights or understanding were being interpreted from the data, then places data into predetermined and emerging coding procedures (Creswell & Creswell, 2018) that identified three main patterns (Bhatta, 2017). Predetermined codes were based on

previous findings and current research including: training needs, ambiguous roles, and value in the profession. This was completed to understand the current issues outlined in the literature and apply it further to paraeducators' experiences. To look at the current issues outlined in research through Dewys' lens of experience (1938) and expand further on barriers to paraeducator future learning experiences. The process was completed for each individual's interview data, and then the themes and interrelationships were compared across other participants.

Trustworthiness

Member checking and peer debriefing techniques were used to ensure trustworthiness (Creswell & Creswell, 2018). Participants were provided parts of the main themes and polished transcripts to ensure clarity and that their statements were accurate. Secondary researchers were consulted to discuss interpretations and themes to account for researcher subjectivity (Merriam & Tisdell, 2016).

Results

The following four major themes were identified based on the results of the interviews with the ten paraeducators: (a) what is the purpose or goal of PE, (b) paraeducators are confident but don't always know when to assist, (c) relationships and collaboration makes or breaks successful learning experience, and (d) experiences with professional development in PE content knowledge.

What's the Purpose of PE?

Reflecting on their experiences in the physical education setting, there was consensus among the paraeducators about the focus or overall goal the participation of students with

disabilities in general PE. Instead of including the three main learning domains of psychomotor, affective, and cognitive, paraeducators emphasized on a broader definition of a successful class. The main objectives that were brought up amongst the participants were as follows: (a) Students participated in the planned activities to some degree and not experiencing any escalating or crisis behaviors (n=4). (b) Students alongside or directly with their peers (n=4). (c) Students gained skill development by participating in the planned activities or learning experiences and tasks created by the physical education teacher, not a separate activity or skill focus (n=2).

Ms. Z spoke how she was given only one specific role, which was to keep the student from having an “outburst.”

The instruction I was given from my SPED [*special education*] boss was, you know, like while you’re in there to minimize her outburst and all her jazz. Often putting her on the scooter and just keeping her calm right (Ms. Z).

Ms. M was the other paraeducator who explained that she viewed her role in supporting her students in PE as making sure her students participated in an activity successfully, which she defined broadly as just participating with peers (didn’t matter if the child was doing the activity correctly). She also noted that she would pull the child away from the group to avoid the student from “escalating.”

They might get frustrated over something that happened at home, and then they'll just bring it up, and then they'll, they'll get upset. But we're there. We'll calm them down and we say you know, ‘Don't be frustrated, you know you can do this’, and we'll show them you know things that they can do right. Well, if they think it's like really, really hard like for them in their mind. We'll just switch them to something else, let's try something different and then they'll be like Oh, well (Ms. M)

Similarly, Ms. P spoke on how often the goal was getting her students to stay in PE for the full duration of class. She said that a successful session would be one where her students stayed in the gymnasium just participating in any activity, with or without peers. She discussed that it was often a difficult experience to keep one specific student in PE, noting she utilized several different positive reinforcement supports to keep them in the gymnasium.

It was a matter of how long we could get him to participate. In the beginning it might be 5 minutes, it might be 10 minutes, and then we worked it up and I think one week we stayed all 40 minutes. Now did it run me pretty hard? Yes, it did. Was I able to keep up with him? Yes, I was. But with a lot of restrictions, I had to continually try to keep him in control and use edibles to help him stay in control (Ms. P)

Others described the affective domain of learning being the prominent goal of students participating in physical education. Focusing specifically on socializing with same aged peers and building connections. All of the paraeducators worked in a self-contained classroom and brought their students to a general PE class with peers of the same age. It was mentioned that often this is the only time that their students were with peers without disabilities and not in their self contained classroom. Many paraeducators focused on how the other students interacted with their students. Mrs. C emphasized that often the student may not understand the rules of the game, but PE allows them to get to know their peers better.

Oh, you know she couldn't catch the other kids and kids pulled her flag if she even did understand what the game was, so he came over and tried to have her pull his flag and, and the kids the peers overall are pretty used to these, because they do go in for other activities morning meetings things like that. By the end of the year, you know they do

kind of know them and know how to interact with them and not interact with them so
(Mrs. C)

Mrs. V also emphasized how impactful and successful a day in PE can be when peers step in and help her students. With peer support, the students with disabilities became more independent and less attached to the para. She noted that peer support meant she (as the para) did not have to be hovering over her students or communicating with peers to get them involved.

Well, I feel like the students will definitely help out the situation because they're old enough and they understand what's going on with their friends, so they will try to help. Obviously, the PE teacher either put them in a certain row, what do you have? And those students usually will hop right in and will be like, "Hey, you're right here in line. This is what I need you to do." Just be super friendly, super helpful. Like I said, I've been super surprised (Mrs. V)

Ms. K shared this sentiment and emphasized that this social interaction and building these connections was much more important than any physical education skills the students were learning.

For them [students with disabilities] to have those social experiences with their peers, that part maybe a little more important than you know whether they're shooting the basketball the right way (Ms. K)

The objective or purpose emphasized the least by participants was the focus on skill acquisition and content knowledge. Some of the paraeducators discussed participating in any activity to keep them moving, but just for the sake of movement. Mrs. H emphasized in her interview that she believed PE class was successful when her students identified skills or equipment that was used,

and that they could recall this content information to other teachers and students when they returned from PE.

When they get back upstairs to our room and are able to tell another kid or a different teacher or you know the main teacher in the room, what they did in PE, that's huge because it means it made an impression on them. Even if it's a kid [non-verbal] signing "soccer ball" because they played ball today with their feet. If they can do that, that means they had a good time (Mrs. H)

Similarly, Mr G. discussed that demonstrating a basic level of understanding of the curriculum and participating in games with modifications as needed as a successful experience for her students in PE.

Successful? I would say that you know it is something that they're able to attain and have success with basic directions for most of our kids. Some of the games can get really complex, and I feel like that is a struggle to keep them on task and make sure they even remotely understand what we're doing. But yeah I mean successful, as you know, staying on task, being able to access the same tools and understanding that the other students are using (Mr G)

How paraeducators approach supporting their students with disabilities in PE will differ greatly based on how each paraeducators defines the goal of PE for their students. It is clear that standards, goals, and objectives were not clearly expressed or described to paraeducators making it challenging for paraeducators to understand the *why* of an activity for their students. The lack of consensus also provided insight on how none of the paraeducators referred back to a student's IEP to understand what goals students had in PE.

To Assist or Not to Assist?

Throughout the study paraeducators expressed their motivation and passion to create the best learning experiences for their students. Each of the paraeducators had a different response when asked how much they should intervene and help their students. Some realized that too much intervention could lead to “hovering,” a situation where the para may unintentionally do too much for their students and in turn repel peers from coming and interacting with their students.

When speaking on the knowledge of physical education skills, some paraeducators were confident in their ability to teach students and believed they knew their students' learning needs best. Others discussed how they could identify when students were experiencing success and when they needed support, but they also noted that they often were not sure how to best provide this support to their students. This knowledge is based on their experience teaching and their own personal experience participating in their own physical activity. Aligned with current research on ambiguous roles, many of the paraeducators were confident in their ability to jump in when they needed or stay with the student throughout the physical education lesson. However, participants did note that it was challenging when they are making changes on the fly,

Absolutely I do it [implement modifications] all the time, yeah I'm not shy, I will go in the equipment closet myself and get it. I'm not going to wait around for somebody to, especially because if they are already in class and already teaching the main group of kids, I'm not going to interrupt them. I know where the stuff is. Now the other thing is there are some activities that I just can't accommodate (Mrs. H)

Other paraeducators mentioned that of course they are confident in their PE skill knowledge. However, they mentioned not having materials prepared beforehand or having knowledge of the PE lesson, which forced them to make decisions about whether to provide assistance for their student and how to assist their student in real time. Paras mentioned that lack of knowledge about the lesson ahead of time had negative effects on the student's on-task behavior and created social barriers to interacting with peers.

I don't think they [GPE teachers] would mind if I did [grab equipment], I just don't know that if I'm with my student and try to think, "what is the best way to do this, if I walked him out of the game and try to go get something [different equipment], is he going to behaviorally spike versus staying in line and just using the material we have (Mrs. V)

Ms. Z explained that although she knows her students' needs and could provide accommodations for her students, it is challenging deciding when to provide accommodations and makes a student stand out even more than they might already.

Just the idea that I'm like 'okay friend, let's now walk over here and I'm going to hold your hand so you don't sprint away from me and everyone's watching me hold your hand and assist you into the room to get your equipment now' (Ms. Z)

Mr. G was one of the only ones to mention having a hands off approach and stepping in when needed. He discussed how he observes how the child works independently or with peers first before stepping in for more direct guidance.

Yeah. I feel like once the student is in the activity, I'll let that unfold and let the other students help the situation. But definitely when entering the PE space, I will be super hands-on helping and guiding a student and letting them know what's going to happen.

Then when we go to leave, I usually give them a countdown, like a five-minute countdown so they have an idea of what's going to happen (Mr. G)

Paras overall did not provide a clear explanation of their role or if they were trained to understand when they should step in and help their students and in other times when students needed the time to problem solve for themselves. Furthermore, their relationship with the PE teacher had an impact on their overall experience in PE.

Relationship with PE teachers

Participants had several mixed answers regarding how often they collaborate and communicate with the PE teacher. Ultimately, paraeducators mostly experienced PE teachers who were welcoming to their students, yet they would not communicate with the para or rarely provide any accommodations or support (n=7). Few mentioned that they spoke with their PE teacher regularly, as much as the school day allowed (n=3). Three of the participants had only positive things to say about the relationship with their PE teacher, including that they often felt valued and supported. This smaller set of paraeducators mentioned that the PE teacher informed them ahead of time or at the beginning of class on the planned activities and skill focus for the day.

Well, yeah she'll come in, and she'll tell us what we want to do for the day. What she has set up. or like if ever she's not there that day or whatever she'll say, well, you're welcome to go in there and have you know, and you can do basketball (Ms. M)

Mrs. C expanded the effective communication her PE teacher has when she arrives to class but often limited to that short window. Due to the busy schedules of all faculty during school hours, it is challenging to find a time to collaborate and communicate.

She's fantastic. So, the only reason I would say that it was really only once I would get there and I'd find out what they're doing. But a big piece of that would be the time of the day. For the instructional assistants, we'd get there at 8:00, which school is starting at 8:00, so the resource teachers are getting ready to get their first classes in. So, there's not that planning time for me to be in on any of the information, and then just for any of the teachers across the board, for me to have a time where I can talk to them, it was something where really we had to be proactive and say, "All right, well, we should touch base about such-and-such (Mrs. C)

Other participants provided examples of having to advocate for their students and advocate to be consulted for their knowledge about these students, their skills, and when students are experiencing success in an activity. This was due to not being consulted by their PE teacher.

You have to work a lot harder to remind them that these kids are coming to class that prefers the squishy ball or something. Or the larger ball when, I don't know, I don't know hand coordination issues or hand problems like that. But they [general PE teachers] might not think ahead of time in getting that specific ball out, because they just don't think (Mr. E)

A few of the participants mentioned how often the PE teachers relied on them to accommodate the students with disabilities. Mrs. P and Ms. H discussed how "Yeah, and we know what the kids do because we're in the classroom with them all day." However, when it came to PE content, they were unable to provide specific support. They discussed how they had to continue to advocate and remind the PE teachers that something had to change to help the student experience more success in certain activities.

I think that with most of the kids, I felt like I might give one or two things a try, but when it got down to it, I was more likely to go to the teacher and say, "This isn't working, he's getting frustrated. What is your suggestion on how we should do it?" And she was good. She's good. She usually would give a suggestion, but I know it's hard for her to focus on that when she's got 25 other kids to try to be teaching also (Ms. C).

Ms. B also agrees that the PE teacher was kind and welcoming but PE was “a little bit much for them, because some of them can’t do all the stuff that they do and I’m the only one in there with them.” Ms. B had to come up with activities on her own when students were unable to participate.

Several paraeducators discussed that their PE teachers were well intentioned and tried to create a kind and welcoming environment. However, para also said that the PE teachers rarely came up with specific accommodations for the students with disabilities, which negatively impacted the participation and success of these students. Ms. P mentioned that the PE teacher treated the student with disabilities the same as all other students, something we hope all teachers do, but only relied on the para to support that child and provide accommodations. Ms. P emphasized the point of the kindness not being the same as really getting to know the student on a personal level as they do with the other students in their classroom with the following quote:.

She treated [student] and myself the same as she would've anybody else. There were no exceptions made for him. My job was to make sure he kept that mask on and try to ... Of course, he couldn't keep up with everybody else because he's like pre-K to 2. On a bad day, he was more like 3 years old (Ms. P)

Mrs K recalled an experience when the PE teacher's actions hindered the students' inclusion and also created a harder role for the para. The PE teacher was engaging and talked with the student, but he often did not take their participation seriously.

“They don't realize when they are reinforcing negative behaviors that, you know, cause more problems for that student playing with their peers. A PE teacher tends to make a joke about our friend that takes off in PE and will yell at her to run fast away from us in the activities (Mrs. K)

Ms. Z continued this sentiment, stating that communication with the PE teacher is one of the most challenging issues they face when they attend general PE with their students. Not only that there is limited communication, but expectations, activities, and any changes are not expressed at all to the paraeducators.

So that's actually one of the biggest issues that is kind of going on, sometimes they'll do the exact same thing for a whole week and then they'll switch on us and we won't know what the skill is that we're working on, and so that's hard. We don't know what's coming and we don't know if it's gonna be stations, one specific rotation, and they're going to go outside so be inside before we even go there, so that communication isn't really there (Ms. Z)

Professional Development Experiences

All participants in this study reported that they have not received any specific professional development (professional development) in PE content, nor have they been clearly told about their specific role in PE (n=10). Even though most of the paraeducators who participated in this study said they felt confident helping their students in PE, most paraeducators

interviewed did say they would like to participate in any professional developments made available to them (n=9). Some specifically mentioned professional development content where they can learn more about the student's disability and how it impacts motor skills, and some wanted to learn how to modify and include students in large group activities. All paraeducators also mentioned they typically were not invited nor did they attend the “teacher work-days” when students were not present. For those that did attend, instead of attending sessions with their home-base teacher, they stayed behind in the classroom engaging in more managerial tasks such as laminating, copying, or cleaning. Several paraeducators spoke on how most of their knowledge on their position came specifically from other paraeducators and just the years of their own personal trials and errors.

We're not hatched out of eggs and knowing everything that that kid needs, but you know, I mean 12 years into it and I learned from other assistants that were there before me, you know that. That's what you need to do. You always must be thinking about what your kids are going to need because other people are going to think it for you. (Mrs. H)

Mrs. C agreed she has learned just through her own experiences over the years in her position. She also mentioned that she focused on supporting her students socializing with peers and did not think about PE specific content.

I guess this is terrible, but it never occurred to me during all the time that I was there that there were certain skills, that there were reasons behind the skills that they were working on. And I guess maybe there's an order, that you build on this skill, and once you have mastered that skill, then it helps you build on this next skill. And like you mentioned earlier, if there was training for us to find out, what do you work on first? Should there be

a set of skills that you should master first? And then once they master that, then you move on to something different (Mrs. C)

Paras were asked about what type of professional development would be most effective to their learning. Participants in this study did not speak on specific topics but more on the importance of *experiencing* and seeing physical demonstrations to improve their understanding on supporting students in PE.

Oh, I think it would be very helpful to have that in-person. In person, maybe with role-playing, as a matter of fact, with somebody who knew some of the challenges that we would face in advance and be able to teach us how to handle those situations. Of course, nothing is as good as being put on the spot at the moment. I mean, you have to react. But my thought in working with these children, no matter what I have been doing this year, is how hard can I push these children and get the most out of them and give them what they need? That's been with math, that's been with PE, that's been with ... just their interaction (Ms P)

Furthermore, paraeducators expressed they did not have any opportunities to collaborate with PE teachers during the day or participate in professional development with the PE teachers. Paras noted that, due to the limited time during the regular school day, it would be beneficial to discuss PE issues with the PE teachers during teacher workdays or as part of a professional development. Of the total participants, Ms. K was the only para who said that PE professional development would not be a good use of her time and did not feel the need to participate in any PE-specific professional development. “No, I mean it's kind of common sense to me. I was a sporty kind of person, so that just kind of comes natural (Ms. K)

Discussion

In Dewey's Theory of Experience (1938), Dewey emphasizes learning is a continuing reconstruction of experience in which the process and the goal of education are one and the same thing. Encouraging the perception that the main purpose of education is to establish conditions that every individual can become lifelong learners (Dewey, 1938; Bjorke et al., 2021). This study explores elementary paraeducators' PE experiences through the lens of Dewey's theory, examining whether their past experiences in PE foster continuous learning or present obstacles. Moving into the discussion, the structure of the analysis is by themes emerging from the results, using Dewey's framework to categorize these experiences in either educative, non-educative, mis-educative, reflecting on how previous experiences may hinder or promote future learning. This approach allowed researchers to explore how the paraeducators' experiences align with the continuous reconstruction of experience that Dewey advocates as the center of the education and learning process.

Purpose of Physical Education

Results indicated paraeducators not only experienced role ambiguity as current literature describes (Bryan et al., 2007; Davis et al., 2007; Morrison & Gleddie, 2019; Pedersen, Cooley, & Rottier, 2014; Swensen & Haegele, 2020; Goodwin et al., 2022), but there is a discrepancy in understanding of what is the goal or objective of physical education. Split amongst participation for social interactions, skill development, or just survival in PE. It is crucial for paraeducators to have a clear understanding of the overarching goals and specific grade level outcomes of PE. "Physical education addresses the three domains of learning: cognitive or mental skills related to the knowledge of movement; affective, which addresses growth in feelings or attitudes; and psychomotor, which relates to the manual or physical skills related to movement literacy

(SHAPE America, 2015, p. 4).”This clarity would enable them to align their role with desired educational outcomes, ensuring their support is meaningful ways, and contribute to the development of student skills across all three learning domains.

Several participants spoke of the perception of PE as almost “*survival*,” with the goal for students to remain in the full duration of PE class. This not only impacts the student’s participation but also how paraeducators understood their role in supporting their students. How could a paraeducator focus on supporting students fostering building relationships with peers or developing psychomotor skills when they are chasing a student or constantly correcting off task behaviors? It is the discouragement of this environment that limits continuity of learning on what a PE class can be to support growth in psychomotor, cognitive, and affective domains. Paras with such a narrow focus on “survival” would likely not view professional development focused on helping their students be successful in PE content as relevant or practical to their situation.

This understanding of conflicting understanding of purpose takes current research of role ambiguity of safety and minimal behaviors and reveals a more complex barrier to best supporting students with disabilities in PE (Goodwin et al., 2022; Haegele et al., 2019; Herold et al., 2009; Lieberman & Conroy, 2013). Current literature empahsizes role ambiguity and the number one role of the paraeducator is safety. When there is not a clear objective communicated to paraeducators it is that much more difficult to determine their role in supporting students.

Four of the paraeducators in this study agreed their primary focus in PE is on the affective domain, highlighting the development of social skills and participation with same aged peers. While social-emotional learning is a crucial learning objective, an overemphasis can result in a non-educative experience. Paraeducators may perceive successful socialization but in fact could be creating further barriers to peers. As current research reported, the rate of interaction

significantly decreased with peers during academic times whenever the paraprofessional assigned to support them came in close proximity (Malmgren & Causton-Theoharis, 2005). The presence of a para in PE may create a physical and symbolic barrier to building any meaningful relationships (Giangreco, 2005). This narrow focus also may lead paraeducators to neglect development in other domains. Students may interact with peers, but they may be participating in an activity incorrectly, not making significant progress developing skills, or not attaining the recommended levels of physical activity. This can impact student participation with peers in secondary PE programs when activities involve the combination of more complex movements. Students must develop fundamental skills in elementary school PE to be successful in middle and high school when fundamental skills are applied to individual and team sports. The need to learn fundamental skills seems to be lost on several of the paraeducators in this study, as noted by the sentiment of one participant who said “social experiences are a little more important than you know whether they’re shooting the basketball the right way.”

It was interesting that PE skill development was the least discussed when referring to a successful PE class by participants. Only 2 paraeducators discussed with contrasting views, emphasizing the importance of this skill development. Paraeducators discussed the barriers to the development of these skills including a lack of understanding in how to help their students learn the skills and what modifications might be needed. To support the continuity of learning and reconstruct previous unsuccessful PE classes, paraeducators need guidance as to know what these PE goals are in order to best support the student. Communicating a mutual understanding between PE teachers and paraeducators on the *why* of PE, encompassing PE state and national standards, grade level outcomes, and a student’s IEP goal, should be considered in future research to determine how to include differentiated instruction to all learners.

To Assist or Not to Assist?

The present study emphasized how paraeducators reported that their previous experiences supporting students with disabilities in general PE gave them confidence in their abilities to provide appropriate support to their current students with disabilities. Paraeducators reported that they struggled with deciding “*when to assist, and when not to assist.*” Often paraeducators are instructed to assist “as needed,” with little to no guidance when starting their position on what that means or what that looks like (Giangreco, 2015; Maher, 2016; Davis, 2007; Lieberman & Conroy, 2013).

All 10 participants discussed how they felt confident knowing their student’s needs, when they were experiencing success, boredom, or frustration but, 8 discussed confidence in how to modify an activity, but were hesitant to do so. Two mentioned that they did not want to bring any more unwanted attention to the students with disabilities by having their student complete the activity differently or with different equipment. One paraeducator said they were reluctant to walk away to find different equipment fearing leaving could escalate the student’s negative behaviors. Two paraeducators discussed how they would remove the student from the unsuccessful activity and complete an alternative activity away from peers. They reasoned that being separated was the better option as opposed to having the student being unsuccessful in the planned activity and possibly leading to an escalation in behaviors.

This study also revealed that several participants tended to intervene at the first indication of a student encountering failure or difficulty with the planned activities. This may be attributed to the paraeducators’ lack of specialized training in PE content and not knowing their role, which led them to believe they needed to provide immediate support when their student was not immediately experiencing success. However, despite only the best intentions, such interventions

can inadvertently create long-term challenges with participation. Perceptions of students with disabilities indicate that, while students often appreciate the care of paraeducators, this level of assistance often poses significant barriers to socializing with peers and developing problem solving skills. These skills are needed later in secondary PE programs when many students with disabilities participate in general PE without para support, and where learning to participate independently and persevere if they fail the first few times is necessary (Haegele et al., 2019; Lieberman & Conroy, 2013; Goodwin et al., 2022). This challenging decision between allowing students to participate in activities even when the student was not performing skills correctly versus stopping the student's activity to provide extra instruction could create non-educative experiences. Without a clear understanding of their role and when to provide support makes these types of decisions difficult for paraeducators in the PE setting. To remedy this mid-educative situation, paraeducators need to be given more specific direction from the special education and PE teachers and regular opportunities to share what they are seeing in PE and then collaborate with the teachers to create a support plan that is best for the student. Given that paraeducators often have the most significant understanding of individual student needs being alongside them throughout the school day, enhancing collaboration will allow proactive strategies rather than attempting to solve problems when they occur. This preemptive approach would not only alleviate the need for paraeducators to make spontaneous modifications but also ensure their insights are effectively utilized and valued in the PE space.

Relationship with PE teachers

Findings of this study align with current research on the impact of miscommunication between paraeducators and PE teachers on student participation in physical education (Bryan et al., 2013; Haycock & Smith, 2011;). On the other hand, findings from this study also match

some recent research that shows how positive communication and relationships between PE teachers and paraeducators can create positive educational experiences (Morrison & Gleddie, 2019, 2021). Such interactions contribute to paraeducators' understanding of how to support students with disabilities effectively align with Dewey's emphasis on experiences that promote growth and learning. For example, when PE teachers in Ms. M's and Ms. K's schools proactively shared their plans and strategies with paraeducators, it fostered a collaborative environment conducive to both teaching and learning. This study also emphasized the importance of the communication of the *why* of PE or what grade level outcomes and standards are students working towards? This information should be relatively easy for the PE teacher to quickly share with the para before class or even better before a PE unit. To make this work though, there has to be a good relationship between the PE teachers and the paraeducators. This relationship can aid the difficulties outlined earlier in this discussion by allowing the PE teacher to communicate a clear teaching philosophy and overall goal of the PE teacher, the objective of daily activities, what the role of the paraeducator is, and when they should assist a student. This also allows time and space for the paraeducator to help brainstorm with the PE teacher how they can adapt and modify specific activities for a student, or understand specific behaviors of a student and what are possible triggers and ways to prevent the behaviors. Several participants discussed that the needs of their students are not always considered by the PE teacher, and as a result they feel part of their role is to advocate for more equitable learning experiences. Future research should explore how collaborative professional development that involves both the PE teacher and the para of can make progress on better supporting students with disabilities in PE (Morrison & Gleddie, 2021). This approach is crucial because effective strategy implementation

and meaningful change can only occur when both positions jointly understand the information and collaborate closely.

Similar studies on paraeducators also discuss the adverse effects of insufficient communication (Haegele & Swenson, 2022; Maher, 2016; Morrison & Gleddie, 2019, 2022). When PE teachers fail to inform paraeducators about changes in schedules or activities, it can lead to mis-educative experiences. This absence of communication may lead to the perception that students with disabilities receive insufficient support in PE, leaving paraeducators to independently develop inclusive strategies. This non-educative experience, in addition to a lack of a clear description of defined roles, may lead paraeducators to believe that they are the sole individual to provide support to the student with disability. Such experiences hinder paraeducators' ability to prepare and adapt, limiting their capacity to provide meaningful support. Moreover, the absence of timely communication of timely activities, resulting in paraeducators finding out the daily activities at the same time as their students, which can lead to paraeducators feeling unprepared for the day's activities and having to play catch-up on what the student should be doing and how to best support their student. This situation prevents them from understanding and fulfilling their roles effectively, creating a cycle of ineffective support where they are continually playing catch-up rather than proactively contributing to the students' learning. Ultimately, when examined through Dewey's educational perspective, such experiences could lead to mis-educative experiences for paraeducators, fostering the belief that PE is excessively challenging for students with disabilities and themselves. This misconception may result in situations where students are removed from the general PE activities with their peers due to the paraeducators unpreparedness and lack of understanding of the activity's objectives and rules.

As mentioned earlier in this discussion, paraeducators are often faced with the challenging decision of prioritizing one goal over another, either participation with peers or engagement in an alternative activity away from the group. The results from this study emphasize the relationship between PE teachers and paraeducators as one of the most critical components to the educational experiences of students with disabilities suggesting the importance of fostering positive, communicative, and collaborative relationships between PE teachers and paraeducators. Future research should focus on this collaborative effort, creating professional learning communities (PLCs), or having administrators create more opportunities during school hours for all professionals to discuss the issues and enhance the equitable learning experience for all students in PE.

Professional Development Experiences

In examining the experiences of paraeducators in PE, this study highlights a pivotal shift needed in future research and training approaches. Over the last two decades, research has often focused on providing suggestions for paraeducators or PE teachers individually (Bryan et al., 2013; Carter et al., 2009; Davis et al., 2007; Da Fonte & Capizzi, 2015; Giangreco et. al., 2001; Higgins, 2021; Riggs & Mueller, 2001; Swenson & Haegele, 2022; Tiangco & Broer, 2005; Zobell & Hwang, 2020). However, this study suggests that without strong, positive communication between these two roles, any training is likely to be ineffective. Developing a reflective lens, guided by Dewey's concept of educative experiences, growth and learning can be enhanced through collaborative and interactive processes. The discussions of participants indicated that while paraeducators may gain some knowledge through years of experience and learning from each other, this can often lead to misinformative or limiting practices. This study's findings echo the broader trend that paraeducators are typically under trained in PE, especially in

understanding their specific roles and how to effectively support students with disabilities (Bryan et al., 2013; Carter et al., 2009; Davis et al., 2007; Higgins, 2021; Riggs & Mueller, 2001; Swenson & Haegele, 2022; Zobell & Hwang, 2020).

While most paraeducators in this study expressed a willingness to participate in PE specific training, particularly those offering practical, inclusive strategies, there was a notable exception. One participant, drawing on her background as a “sporty person,” viewed PE as *common sense* and believed her athletic experiences sufficed. Arguing that PE professional development would not be a valuable use of her time. This perspective exemplifies the lens of Dewey, highlighting the impact of past experiences on current perceptions and attitudes (Dewey, 1938).

This also reflects broader findings in current research, suggesting that many paraeducators share a similar view, finding traditional resources like textbooks, articles, and professional developments insufficient for teaching them how to support students in PE effectively (Morrison & Gleddie, 2019; Swenson & Haegele, 2022). Further examination through Dewey’s lens, one might question the motivation behind attending professional development if past experiences have promoted a belief that the educational environment in PE is not conducive to supporting students with disabilities. This mis-educative experience not only hinders their understanding of the purpose of PE, helping students become physically literate individuals across the lifespan, but also creates a barrier to recognizing and rectifying ineffective practices without proper training in the field of PE. This situation underscores the necessity for PD that goes beyond content knowledge and lecture. Offering paraeducators experiential and relevant training that directly addresses and demonstrates unique challenges of PE for students with disabilities. Such training should aim to deconstruct the barriers created by mis-educative

experiences and advance a deeper understanding of how to support all students in leading healthy and enjoyable lives, both physically and mentally.

Another crucial element missing in current literature is professional development approaches emphasizing collaborative training between paraeducators and PE teachers. Future research should not just focus on the content of professional development or its delivery methods, but more importantly, on how joint training sessions can facilitate mutual growth and understanding. Without this collaboration, the last two decades of research show that efforts to improve the integration of paraeducators in PE have not been fully successful. To help deconstruct previous perceptions of how students with disabilities are feeling participating in PE, it is essential for future research to include the perspectives of students with disabilities regarding their experiences with paraeducators in PE. Understanding these experiences can provide valuable insights into the effectiveness of current practices and the areas needing improvement.

Additionally, the method of professional development delivery plays a significant role in its effectiveness. Paraeducators need more than content knowledge; they require clear demonstrations of how equitable learning experiences in PE are truly possible through collaboration and communication. This could include videos of actual classes implementing various inclusive strategies, based on student feedback and research. Participating in role-play activities or observing a PE class can provide paraeducators with the practical knowledge they need, which is where the direction professional development is heading from the norm in current professional development offerings.

Conclusion

This qualitative study, framed within Dewey's Theory of Experience, has delved into understanding the unique experiences of paraeducators who support students with disabilities in

general physical education as well as the professional development needs of paraeducators working with students with disabilities in PE. The study's findings underscore a critical need for a paradigm shift in how information and expectations are shared with paraeducators when supporting students with disabilities in general PE as well as professional development for paraeducators is approached and delivered.

Central to the study's findings is the realization that positive, collaborative relationships between paraeducators and PE teachers are vital for creating educational experiences. This collaboration, coupled with effective communication, can enhance paraeducators' understanding of their roles. However, the study also reveals the prevalence of non-educative and mis-educative experiences arising from a lack of communication and misunderstanding of roles, which have historically led to ineffective support for students with disabilities in PE settings.

The findings highlight a notable gap in the professional development of paraeducators, particularly in PE. Most paraeducators in this study expressed a willingness to participate in professional development, especially those focusing on practical, inclusive strategies. Yet, a common sentiment shared was the inadequacy of traditional training methods such as textbooks and articles in addressing the unique challenges of PE. Many paraeducators rely on learning from personal experiences or other paraeducators, which, while beneficial to some extent, can often lead to limited or misinformative practices. This situation underscores the need for more experiential and relevant training that addresses the specific challenges faced in PE classes.

Furthermore, this study suggests the necessity of collaborative training involving both paraeducators and PE teachers. Such an approach is crucial, because effective strategy implementation and meaningful change can only occur when both groups understand the

information and work together closely. Future research should not only focus on the content of professional development but also on how these joint training sessions can facilitate mutual growth and understanding.

In conclusion, for paraeducators to effectively support students with disabilities in PE, they require more than just content knowledge. They need collaborative training alongside PE teachers that includes clear demonstrations, role-playing, and observing PE classes in action. These methods will help break down the barriers created by past mis-educative experiences and foster a deeper understanding of inclusive practices in PE. Additionally, incorporating the perspectives of students with disabilities into future research will provide invaluable insights into the effectiveness of these practices, paving the way for more inclusive and effective learning environments in PE.

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Paper 3- Exploring Realities of Paraeducators and Physical Education Teachers Collaborative Practices and Experiences

Introduction

The hiring of paraeducators in the United States has seen a significant increase in the last ten years, particularly in special education classrooms (U.S. Department of Education, Office of Special Education Programs, 2021). Their role has expanded to include supporting students with disabilities in general education settings, including general physical education (PE) (Causton & MacLeod, 2021). With regards to PE, paraeducators have emerged as a solution, enabling students with disabilities to access all aspects of the PE program, engage in motor, sport, and fitness activities, and foster social interactions with peers (An & Meany, 2015; Goodwin, Watkinson, & Fitzpatrick, 2003). Unfortunately, paraeducators often lack formal training and on-going professional development to provide the knowledge and ability to effectively support students with disabilities in general education settings (Giangreco et al., 2005; Malmgren et al., 2005). This deficiency becomes particularly problematic for paraeducators supporting students with disabilities in general PE. The PE setting poses several unique challenges such as large spaces both in the gymnasium and out on the fields, double and triple class sizes resulting in crowded environments, lots of movement that may be too fast paced or combining multiple complex movements, and a very noisy setting that may bother some students with disabilities. These conditions require the PE teachers' full attention. Making it difficult to provide directions for the paraeducator or individualized support to students with disabilities. Additionally, the physical presence of the paraeducator accompanying the student with a disability in PE can unintentionally prevent peers with disabilities from interacting with the students with disabilities, which limits important opportunities for social development (Bryan et al., 2013; Davis et al., 2017; Morrison & Gleddie, 2019; Swensen & Haegele, 2020).

In the past two decades, there has been a growing body of research and practical papers focused on the role of paraeducators in supporting students with disabilities in physical education. Many of these studies have utilized qualitative research methodology to investigate the perspectives and experiences of physical educators and paraeducators separately, as well as their training needs (Bryan et al., 2013; Davis et al., 2007; Higgins, 2021; Swenson & Haegele, 2022; Maher, 2016; Morrison & Gleddie, 2019; Pedersen et al., 2014). Other studies have explored the attitudes of students with disabilities towards their physical education experiences and their perceptions of paraeducators (Haegele et al., 2019; Goodwin et al., 2022). A limited number of papers however, have examined the perceptions of both paraeducators and physical educators collectively, specifically regarding the roles and effectiveness of paraeducators (Morrison & Gleddie, 2019, 2021). Paraeducators and PE teachers in these studies expressed a need for PD focused on collaborative practices in order to best support students with disabilities in PE.

These studies have initiated discussions on the undefined role of paraeducators, which ultimately impacts the skill development and social-emotional learning of students with disabilities (Bryan et al., 2013; Goodwin et al., 2022; Haycock & Smith, 2011; Maher, 2018). Suggesting that barriers to students' successful learning experiences in inclusive physical education stem from insufficient training and communication between paraeducators and physical education teachers. Often PE teachers not relaying information regarding activities or the paraeducators not expressing how a student can better be supported in PE.

Various practical papers published in different journals have outlined strategies to address these challenges, such as: a) fostering relationships and initiating conversations of strategies, b) discussing past and current experiences, c) promoting open communication, and d)

defining clear roles (Aiello, 2007; Geslak, 2019; Lee & Haegele, 2016; Lieberman et al., 2007; Miller et al., 2019). These strategies have even been published in multiple textbooks for paraeducators in the special education classroom setting and PE Setting (Causton & MacLeod, 2021; Lieberman, 2007). Lieberman's textbook, "Paraeducators in Physical Education: A Training Guide to Roles and Responsibilities," provides basic information on physical education basics and motor skill development for non-physical education teachers, along with practical guidelines on supporting students in physical education. Despite the availability of research and resources on this topic, there is a gap between this knowledge and its implementation in practice, as highlighted by recent research over the past 20 years, which this study aims to help expand.

Purpose

The purpose of this study is to contribute to the existing research in the field by examining the interprofessional relationship and the realities faced by paraeducators and physical educators collectively when supporting students with disabilities in physical education. Additionally, the study aims to explore how to improve support and information dissemination to practitioners in this context. The study will investigate the interprofessional collaboration between PE teachers and paraeducators, identify barriers to effective communication, explore the challenges encountered by each professional, accessibility to resources and determine strategies for enhancing collaboration to provide optimal support and accommodations for students with disabilities. To gather information on these experiences, three methods of data collections will be used, (a) individual interviews with PE teachers and paraeducators, (b) focus groups involving both paraeducators and PE teachers, and (c) observations of PE classes with student participation and paraeducator support. This study will be guided by the theoretical framework and methodology utilized in a Canadian study, "*Interpretive case studies of inclusive physical*

education: shared experiences from diverse school settings” (Morrison & Gleddie, 2021) and applied to public school systems in the United States.

Theoretical Framework

Dewey's “theory of experience” was utilized to inform the participants' conceptions and the researchers' interpretations of physical education experiences. This theory emphasizes the transformative nature of experiences and their impact on individual learning and growth. According to Dewey, experiences can be categorized as either educative, non-educative, or mis-educative. Educative experiences are those that facilitate further growth and development, while mis-educative experiences hinder the potential for future growth (Dewey, 1938). In this theory, mis-educative experiences are ones that lack meaningful engagement or ineffective pedagogical practices. For example, through current research we know that paraeducators are not provided a clear and defined role in PE and not provided instructions by the PE teacher (Maher, 2016). This often leaves paraeducators feeling unmotivated and having to decide their own role in how to support a student with a disability in PE. Similarly, PE teachers receive little to no training in how to support students with disabilities or how to use paraeducators in PE (Pedersen, 2014). This can lead to mis-educative experiences causing PE teachers to have less confidence in their ability and less motivation to try to support and accommodate students with disabilities. This study hopes to explore if these past experiences affect learning in future professional developments focused on inclusive PE.

In this study, practitioners were encouraged to examine and reflect on their past and current experiences to evaluate the quality of those experiences—whether they have been educative or mis-educative. This reflection allowed practitioners to gain insights into how their previous experiences have shaped their professional identities and pedagogical practices in

physical education. Previous studies, such as Schaefer (2013) and Gleddie and Schaefer (2014), have utilized Dewey's theory of experience through narrative inquiry to explore the connections between past educative experiences and their impact on physical education pedagogical practices.

By utilizing Dewey's theory of experience as a lens, this study aimed to examine the interprofessional relationship between paraeducators and physical educators in supporting students with disabilities in PE to understand the dynamics, interactions, and communication strategies between practitioners. Additionally, the framework guided the analysis of practitioners' experiences, examining how their transactions with the environment (i.e., the situation) influences the educative potential and growth in interprofessional collaboration. Overall, Dewey's theory of experience provides a comprehensive and reflective framework to begin to understand the interprofessional experiences between paraeducators and PE teachers. Viewing paraeducators' interactions with the environment and with physical education teachers through this lens highlights the importance of critically reflecting on the collaborative past, present, and future experience of inclusive physical education. By adopting this framework, this study aimed to contribute to the advancement of knowledge of realities and experiences of inclusive physical education and inform the future development of effective interprofessional practices in PE for students with disabilities.

Methods

Participants

The target population for this study included current elementary level special education paraeducators and general physical educators who worked directly with students with

disabilities. Paraeducators must have participated in PE classes regularly throughout the school year. This study focused exclusively on elementary physical education, since instructional approaches, content, and state standards are vastly different between elementary, middle and high school PE. A maximum of four paraeducators and two PE teachers were recruited from the same school. This ensured data captured experiences from various PE programs. Participants were selected through a convenience sampling strategy, for a total of seven paraeducators and three physical educators from three different elementary schools. Targeted participants were employed by public elementary schools in the Central New Jersey Region. Permission conduct research was approved by the University Virginia Institutional Review Board and the Township Public Schools that was selected for this study. Approval to contact PE teachers and paraeducators was obtained by the central office's research department of Township Public Schools, and principals from each of the elementary schools in Township were also contacted for approval. Emails included information and consent form explaining the purpose of the study, compensation for participation, and researcher contact information including phone number and email if they are interested in participating in the study. Some potential participants were known to the researcher through work affiliations (e.g., physical education teachers, special education teachers, and other professionals working in elementary schools), who were emailed a copy of the information and consent form for them to be given to the paraeducators they work with in PE.

School Contexts

Case 1: Mountaineer Elementary School

Mountaineer Elementary School is a public school nestled in a large suburban area of New Jersey. Serving students from kindergarten to fourth grade. A total of 478 students, 58% of the student body comprises minority students. The dedicated staff includes 40 full-time equivalent teachers and a total of 11 paraeducators. Participants in this case include, Mrs. H, the physical education teacher (1 full-time), Mr. E, Ms. S, and Ms.R, paraeducators.

Case 2: Cavalier Elementary School

Cavalier Elementary School is a public school nestled in a large suburban area of New Jersey. Serving students from kindergarten to fourth grade. A total of 420 students, 57% of the student body comprises minority students. The dedicated staff includes 35 full-time equivalent teachers and a total of 9 paraeducators. Participants in this case include, Mr. A, the physical education teacher, Ms. S and Ms. M, paraeducators.

Case 3: Eagle Elementary School

Eagle Elementary School is a public school nestled in a large suburban area of New Jersey. Serving students from preschool to fourth grade. A total of 399 students, 48% of the student body comprises minority students. The dedicated staff includes 36 full-time equivalent teachers and a total of 10 paraeducators. Participants in this case include, Mr. W, the physical education teacher (1 full-time), Ms. S, and Ms.R, paraeducators.

Hermeneutics Phenomenology

Following the procedures of a study completed in Canada public schools, the study will utilize a hermeneutic methodology. As Morrison and Gleddie (2021) emphasized in their own methodology, hermeneutic research is not widely used in physical or inclusive education

research, but this methodology seeks to capture the wholeness of experiences within context (Patterson & Williams, 2002). By adopting a hermeneutic approach, this study aimed to capture the wholeness of the participants' experiences with interprofessional collaboration in physical education and understand their meanings and interpretations (Packer & Addison, 1989). This approach emphasizes researchers coming to a study with a pre understanding of a phenomenon and is not possible to completely remove to remain completely impartial. This is crucial to eliminate potential pre-understandings being projected on the process that was being investigated (Packer & Addison, 1989 p.53).

Data collection occurred three sequential phases, 1. Observations for three PE classes in the gymnasium., 2. Semi-structured one-on-one interviews with paraeducators and PE teachers, and 3. Focus Groups with both paraeducators and PE teachers. The data was collected in the order listed above.

During observations I adopted a similar approach as Morrison and Gleddie (2021) to strengthen my observation skills. In their study, researchers utilized Boostrom's Phases changing the lens or perspective of the observer to go beyond surface level observations. The phases include, video camera, playgoer, evaluator, subjective inquirer, insider, and reflective interpreter (Boostrom, 1994). To become more familiar with these observation phases, I conducted two pilot observations in a PE class not associated with this study. During data collection, I first observed as a video camera, solely documenting the gymnasium space, equipment, and overall environment. Moving through each phase to add deeper reflection, asking *how do I make the familiar strange?*, to the last phase of "*so what, what is the significance* (Boostrom, 1994; Morrison & Gleddie, 2021)" I repeated this process over each separate observation to enrich data. During this process, the following was collected: notes moving through phases on the

overall environment of the PE class, interactions between the physical education teacher and paraeducator, interactions between the physical education teacher and the class, and interactions of the class with the paraeducator. Detailed observation notes following Boostrom Phases (1994) will be completed during the time of the observation. Directly after the observation, I took time to complete a reflective journal, reviewing each phase to ensure complete observation.

After all observations at one school were completed both the PE teacher and paraeducator were interviewed separately. The semi-structured interviews were conducted virtually over *Zoom* allow flexibility in scheduling. Interview questions included topics, regarding successful PE classes for their students with disabilities, collaborative experiences with physical educators or the paraeducator, and communication strategies with other professionals such as the special education teacher. Individual interviews were approximately 45-60 minutes.

The final stage of data collection focus groups. There were three groups of elementary practitioners from the same school district. Each group consisted of one physical education teacher and two-three paraeducators from the same school. The aim of the focus group was to gather collective perspectives on the interprofessional relationship and collaboration between PE teachers and paraeducators in supporting students with disabilities in PE. It should be noted in the results that Eagle Elementary School did not reconnect for the focus group after each of the one-on-one interviews were completed. Some participants were willing to participate and others ended contact with the researcher and other practitioners. This will be discussed later on in the results and discussion sections.

Data Analysis

In this study, the analysis involved documenting narratives for each school, aiming to identify themes, social meanings, and potential complex discourses discussed during the interviews (Mishler 1986; Packer and Addison 1989). The hermeneutic circle will be continuously utilized throughout the study, facilitating the interaction between interpretations, analysis, and understanding of the research (Ellis 1998). The interpretive inquiry represents a dynamic and repetitive process crucial in qualitative research. The understanding of a research question is continually refined and rethought based on emerging data insights (Schmidt, 2010). This process involves analyzing parts of the data in the context of the whole, and vice versa, allowing for a deeper comprehension of the subject matter (Morrison & Gleddie, 2019). During initial overview of data, interpretations of emerging themes lead to new questions and perspectives, which in turn influence further analysis. For instance, in a study examining interprofessional dynamics, initial observations might prompt questions about communication patterns. As these patterns are explored, new insights might emerge that challenge or deepen the original understanding, leading to a reevaluation of the initial question (Packer & Addison, 1989). This repeated process of interpretation and re-interpretation is not only fundamental in achieving a comprehensive understanding of a phenomenon but ensures that research remains responsive and adaptable to the nuances revealed through ongoing analysis (Ellis 1998). By applying the hermeneutic circle analysis, I continually engaged in a back-and-forth process of interpretation, relating individual experiences to the broader understanding of experiences of supporting students with disabilities in PE (Morrison & Gleddie, 2019).

Trustworthiness

Triangulation, member checking, and peer debriefing were utilized to ensure accurate findings similar to research methods of Morrison (2019). Triangulation will be facilitated by

gathering multiple sources of data (focus groups, individual interviews, field notes from observations, and written self-reflections), which assists in confirming emerging themes within and across data sets (Merriam & Tisdell, 2016; Shenton, 2004). In addition, practitioners were selected from three schools to gain a variety of individual experiences, perspectives, and overall climate. Member checking was completed providing the opportunity to to review their transcripts to ensure authenticity to their true selves and any clarifications of their experiences. Finally, peer debriefing was completed with two other doctoral students not affiliated with the specific study. Primary and secondary researchers will discuss interpretations, reflections analysis, and emerging themes to account for researchers' subjectivity and unsure interpretations of the themes aligned with the participants' experiences (Merriam & Tisdell, 2016).

Results

The data analysis across the different cases in this study resulted in four central themes: (a) Adaptability and flexibility, with sub themes of challenges in PE, (b) professional development experiences and strong desire for more opportunities, (c) evolution of teaching philosophy, values, and personal growth with a sub theme of individualized approaches to diverse student populations, and (d) collaboration and relationships between all, with sub themes, student relationships, relationship with peers, and relationships with paraeducators and PE teachers. The responses from participants established reoccurring themes seen in the various elementary schools that ultimately impacted the participation of students with disabilities in physical education.

Results are reported in a hybrid, thematic organization with the focus being within specific cases (i.e., specific schools). The three data sources, observations, one-on-one semi-structured interviews, and focus groups will also be embedded into one results section for each

case. This approach highlights the experiences and relationships specific to each case and explores similarities and variability in experiences and practices across different schools.

Professional Development Experiences

There was a unanimous voice amongst all practitioners that there was significant need for targeted professional development training in physical education. Participants across cases discussed the need for better resources and support, an emphasis on practical experiences, in-service time to have a collective reflective experience, and a need for more collaborative efforts.

Case 1, Mountaineer Elementary School

The need for targeted professional development among PE teachers and paraeducators emerged as a common theme in all discussions. Reflecting on their initial hiring and subsequent years in the school division, practitioners consistently reported a lack of specific training on supporting students with disabilities in PE. Observations at Mountaineer Elementary's PE sessions revealed some strategies differentiated instruction for all students. For instance, in a class focusing on striking skills, varied hockey stick sizes and tape markers for hand placement were used to accommodate all skill levels. The PE teacher, Mrs. H, discussed that

The para brings behavioral knowledge support to help keep the student engaged and on task. This behavior management chart utilizes getting students to earn coins or nickels throughout their school day. Besides this token system there were no other visuals used in the class (Mrs. H, PE teacher, Interview)

During observations, the behavioral charts were rarely referenced during activities, but were utilized at the end of class. The student and paraeducator arrived at the same time as

classmates and left this token system board on the stage. When the PE teacher corrected the students' behavior, the chart was not referenced or shown. This inconsistent use of behavioral charts may indicate a gap in training and expectations of the paraeducator. Meaning they have not been effectively trained on how to utilize the support to keep the students on task and also to keep the behavioral plan consistent throughout all of the class subjects.

Considering potential professional development opportunities, it became apparent that integrating visual and behavioral supports commonly used in special education could be an effective practice and strategy in PE as well, not only benefitting the students with disabilities but all students. Utilizing these tools for all students can increase engagement and communicate that these tools are not just for a select few. During interviews, paraeducators identified that special education related training was given when they first started their position, which was quite some time ago, and they said they vaguely remembered the training session at all, highlighting the pressing need for more effective and more memorable professional programs.

The only training I had was a crisis training. Prevent? What's it called? CPI [*Crisis Prevention Intervention*] prevention intervention or something like that (Ms. E, para, Interview) .

I wish I had more training on [*physical disabilities*] just because it would be nice to know what other people do, but I don't think many other people in the district have as many students with physical disabilities, just by when I've talked to people in my PLC [*professional learning community*] (Ms. H, PE Teacher, Interview)

When provided, professional development sessions were often deemed ineffective and irrelevant to most participants. Despite the potential for in-service training to offer in-depth and

valuable content, training was generally perceived as unhelpful by teachers. Analyzing these experiences through Dewey's theory of experience (1938), such disappointing professional development material could be categorized as mis-educative. Consequently leading to diminished expectations and motivation before the professional development even begins.

I wish there was more training provided for our time during teacher work days. I wish the time was used better. I don't go to professional developments, only if I know the content being presented that I can use (Ms. H, PE Teacher, Interview)

There was a speaker on mental health but nothing in the realms of special ed. Outside of that particular guest speaker... I just can't remember or recall any other speakers... what it was about... which maybe it just wasn't as memorable (Mr. E, para, Interview)

Case 2, Cavalier Elementary School

All practitioners at Cavalier Elementary were also in agreement about the absence of professional development. Mr. A, PE Teacher, expressed concerns about the effectiveness of his teaching if he is helping or hindering students with disabilities due to limited training. Similarly, both paraeducators at Cavalier Elementary noted the lack of specific training in supporting special education students.

Observations at Cavalier Elementary found the PE environment to be particularly positive and energetic, feeding off the spirit of the PE teacher himself. As students entered the gymnasium, they were quickly instructed with clear and concise directions for the first activity and engaged soon after. With just a quick reminder of a skill cue, emphasizing the follow through of the overhand throw, "high five-throw-buckle your seatbelt," students knew exactly

what skill they were working on and the critical element of that skill. While lessons were engaging, there was an absence of visual support, a tool that can be used for all students, in the gymnasium, particularly for skill demonstration or activity explanation. This was especially relevant when the PE teacher mentioned challenges during the observations faced by English Language Learners understanding verbal instructions. Although they managed by following demonstrations of their peers, this example demonstrates how differentiated instruction training can benefit students with and without disabilities in the PE setting.

I do not have any training [*for a paraeducator role*], I've done a resource room. I've done one-on-one for literacy and I've done one-on-one for science socially, here and there. But no training for any of it (Ms M, Para, Interview).

I don't want to publicly embarrass them, bring more attention to their struggles, or cause any other stress (Mr. A, PE Teacher, Interview)

Both interviews and focus groups revealed the fact of insufficient formal training, practitioners often resort to “on-the-go” learning, drawing from years of experience or seeking advice from colleagues. While leaning on peers can sometimes lead to non-educative experiences if the shared information is inaccurate, it often serves as a crucial support system for paraeducators and PE teachers in the absence of other resources.

Ms. M (para): you don't know the students, you know there's not a lot of training in this job. Honestly, I think that's definitely one of the shortcomings of the job. We're not given the whole lot of information

Ms. S (para): Right. It's on as-needed basis, so if I'm struggling with the student and you know they're just not getting what I think they should be getting out the gym class

Ms M (para): I think a buddy system works well...but yes we need more formal training, more suggestions. Absolutely

Mr. A (PE teacher): Agreed. Even for me, I had to figure out my best way to do this
[teach students with disabilities]

All practitioners interviewed agreed that any opportunity for professional development, especially during in-service workdays, were ineffective and could have been much more impactful to supporting students with disabilities. Aligned with the responses of Case 1, these experiences often resulted in mis-educative outcomes, when they could have provided information and resources to help all students. Mr. A, PE Teacher with 27 years of experience, expressed significant frustration over the persistent shortcomings of these professional development sessions.

There needs to be practical strategies, you can't tell me, you can't teach me-it's a fricken slideshow, I can read a slideshow, you need to show me how (Mr. A, PE Teacher, Interview)

We do have opportunities in the beginning of the school year, we do have an in-service. I definitely don't think it's utilized to its fullest potential...we definitely should have more time to collaborate- to talk about our skillset." (Ms. M, Para, Interview)

As an instructional assistant, we have 2 *[in-service days]* per year... I don't really feel like I get so much out of it, because it's such a short amount of time. It's like doing it for the

sake of doing it. Not what's needed per se... I don't know. I wish there was more targeted education. I don't know what I don't know, I like the idea of doing it at my own pace, and pick up something that I think I need (Ms. S, Para, Interview).

Case 3, Eagle Elementary School

At Eagle Elementary, practitioners also highlighted the absence of formal training. The paraeducators emphasized that they would participate in professional development and would like more opportunities to learn how to better students. Observations revealed that the special education teachers and paraeducators often took the lead during PE classes for students with disabilities, improvising activities due to a lack of structured guidance from the PE teacher. While the PE teacher provided a variety of equipment, there was a noticeable shortfall of direct instruction or feedback. This situation could stem from mis-educative experiences, a lack of training in differentiated instruction.

No, no, I haven't received any like professional development or anything on special ed in general or for adapted physical education (Mr.W, PE Teacher, Interview)

The paraeducators expressed a desire for more training, motivated by providing their students a better opportunity. Ms. S. voiced a desire for students with disabilities to engage more actively and enjoyably, believing in their potential to do more. Similarly, Ms. R drew on her coaching background, reflecting on the need to adapt her skills to meet the specific needs of her students in the school setting.

I haven't really had that formal training, even now. When you know a lot like I'm a better coach, because I know everything about swimming. So like, I know where I want them to

go. I know how I want them to start, and you know how their progression through learning (Ms. R, para, Interview)

Really, it's disconcerting a little bit, too, because no matter where you go... you don't get trained. It seems to be a common theme. I've learned a lot. But I can't say I learned it at school (Ms. S, para, Interview)

I think it would just be good to have training, and... to be able to do as much as they [*students with disabilities*] can do like I think sometimes... They can do way more than we think they can. (Ms , Para, Interview)

Adaptability and Flexibility

Most participants consistently emphasized the importance of adaptability and flexibility in catering to the unique needs of students with disabilities. A common reflection amongst participants was the need to approach each year differently, in order to determine the needs of each student and make adjustments accordingly. It was discussed amongst *Case 1, Mountaineer Elementary School*

Mountaineer Elementary participants focused on a desire to learn about the students they support and being flexible in their approach to teaching and supporting students in PE. During observations, it was noted that the PE teacher had prepared a variety of equipment options to accommodate different students' needs. While this demonstrated attentiveness to equipment-based modifications, there was a noticeable lack of adaptations in other areas. Specifically, the teacher did not modify verbal instructions, provide visual support, or alter tasks to enhance student success and engagement. This may have been the result of an non-educative experience,

that differentiated instruction is *only* for students with disabilities when these modifications can be provided to all.

Every student is different. If I notice a student that is struggling, I do try to give a little bit of extra help during class. I'll brainstormed different things with the instructional assistant on you know, ways that we can modify different skills for that for those students to make either the game or the activity, so that they are able to participate because it's really hard sometimes to think outside the box, to come up with ways to make the child with the disability feel included and the same, and not make them stand out (Mrs. H, PE Teacher, Interview).

I have one student now who... could not handle losing... would freak out. The PE teacher understands that and will give me the heads up, "Hey, we're playing a competitive game today, I think so and so might struggle with this." That communication allowed me to be ready to adapt to how the student was feeling in that activity (Mr. E, Para, Interview)

In the focus group, conversations continued about the importance of being familiar with student needs ahead of time. Emphasizing the importance of preparing for students ahead of time instead of waiting for the challenge or issue to arise.

Mrs. H (PE Teacher): I had talked [*during one-on-one interview*] about familiarizing yourself with the kids ahead of time, because you know the district doesn't give you a handbook and say this is what you should do. So you have to be flexible.

Ms. S (Paraeducator): Yes, and something that came to mind Mrs. H in my head was the skills like skipping, galloping, jogging. Some students have trouble with it and I think some students have trouble with it. Which I think what is done in our classes, that it's modeled and explained ahead of time which is so important and so helpful.

Mr. E (Paraeducator): Oh I agree, Mrs. H does an excellent job at organizing the class beforehand. She understands they like choices, they need demonstrations and support, the best example I could give would be the stations are always marked on what they are supposed to do.

Case 2, Cavalier Elementary School

Ms. S, paraeducator, highlighted the challenges in coordinating schedules that frequently change due to various interventions for special education students in PE. This crucial element for students enrolled in special education warrants greater emphasis and understanding. She pointed out that students with disabilities often face barriers in physical education due to being pulled out for other services. This can lead to misunderstandings, as PE teachers, without specific training, may not fully appreciate the reasons behind a student's late arrival or the broader challenges faced by classroom teachers. Paraeducators, responsible for managing these complex schedules, must therefore be highly adaptable, not only in planning but also in responding to student behaviors.

This situation demands high adaptability. It took me hours to write down her schedule because it changes with you know the various interventions. And with this schedule- with only having one PE teacher this year, our schedules are all over the place. I mean, we're how many days into school and I still have no idea where I'm going so I just- flexibility, 0

expectations. I know where you tell me to go. I will get her where she needs to go and I will just do the best I can when I'm in the room to help whoever I can. I like going in with low expectations you know, month to month that can change day to day. (who?)

Amongst the three educators at Cavalier Elementary, they all emphasized the critical role of adaptability in teaching, a skill they attribute to building strong rapport with students and understanding their individual needs. To know where to begin to accommodate these needs in class hinges on establishing a foundation of trust and connection with each student.

If you don't have rapport with students, you will not be successful. You only see those students once or twice a week. I try and build a positive culture in the gymnasium. All students are special needs, because they all are individuals with unique learning needs (Mr. A, PE Teacher, Interview)

Ms. S.: So to me to understand adapting, it's all about the relationship. It's all about the connection with the other adults in the room, whoever they may be, and how we are going to best service that student. It changes obviously from year to year.

Ms. M: Schedules and student needs sometimes changes from month to month, with us definitely changes from the first day of school to the last day of school. You have to be flexible. With this continuously. Even the needs of the students are, as Ms S. said, our job. We are all over the school. We are jumping around new needs are identified.

Case 3, Eagle Elementary School

Paraeducators at Eagle Elementary expressed that the absence of structured PE activities requires a high level of flexibility on their part, particularly for ensuring that special education students have a positive experience. From the perspective of Dewey's theory, this situation creates a mis-educative experience where the responsibility for planning, making accommodations, and implementing activities disproportionately falls on the paraeducators. This challenge is compounded by their limited break time and the lack of a dedicated planning period, forcing them to make on-the-spot decisions for their students.

During observations, it was noted that the PE teacher set up various equipment stations – including hula hoops, a selection of balls, bowling pins, and soccer balls – and gave basic skill instructions. However, there was a lack of detailed explanation, skill-specific feedback, a system to rotate stations, or comprehensive interaction with all students. Consequently, paraeducators found themselves improvising to engage students in these broadly defined activities. Overall Ms. R, remained positive in her experience and kept her focus on her students.

I really like the adapted PE setting, but it would be good to have training to help them to be able to do as much as they can. Do something they like, they can do way more than we think they can and I just have to think outside the box (Ms. R, Paraeducator, Interview).

The lack of structured activities in Mr. W's PE classes reflect his own mis-educative experiences with the challenges of accommodating various skill levels and student needs. Lacking proper training and relying mainly on challenging experiences, Mr. W might find it difficult to envision or execute a successful class with diverse needs. He emphasizes the importance of flexibility, adapting activities to what he feels students need at the moment and prioritizing adjustments for certain students over a plan that “10 times out of 10” will never go according to plan.

You know, 10 times out of 10, because I can have everything set up and planned but one kid will be crying, another throws their shoes and another kid just wants to just lay down. So just being able to be flexible, because if the kids have a day and the kids having a day, and sometimes this is all I really need is to run or may just play with some blocks and do that fine motor skill, or some puzzles (Mr. W, PE teacher, Interview)

Evolution of Teaching Philosophy and Values

Reflecting on how their experiences have shaped their teaching philosophies, PE teachers and paraeducators shared insights, particularly regarding the emotional and social impacts of PE on students with disabilities within interviews and focus groups. *How have your teaching strategies changed since your first position?* This question sparked numerous reflective thoughts among educators. They recounted changes in their roles and approaches to doing a better job of providing a successful and inclusive education experience for their students with disabilities. Such shifts included focusing on how to create environments where students with disabilities feel validated, seen, and encouraged to grow.

Case 1, Mountaineer Elementary School

The atmosphere at Mountaineer Elementary School (MES) was notably welcoming and warm. As students energetically greeted each other and their teachers, their enthusiasm was palpable. This observation reflects the school's commitment to focusing on individual learning needs and fostering a positive educational environment. The sense of support and camaraderie seemed to permeate the entire school. Mrs. H, a PE teacher with 25 years of teaching experience, shared insights into her evolving teaching practices. She emphasized that her successes are the result of collaborative efforts involving not only her fellow teachers but also the school

administrators. For instance, she detailed a specific initiative where teachers collectively developed a new approach to integrate more inclusive physical education activities, reflecting the school's ethos of support and inclusivity

My principal always tells me that the way I handle my class is very- impressive. The kids have some type of respect for me. I can see that they do but I work hard to get to that point. I set down the rules. I try to treat everybody fairly. They know their expectations and they do enjoy PE (Mrs. H, PE Teacher, Interview).

I applaud and cheer on the kids when they succeed in the skills or the games for our students especially, you know, it's any student. I think it's a big deal to them. You know what I mean, whether they won a game or they learned a new skill, which I think is more impressive personally. When they learn how to jump rope. I had a student who learned this year to jump rope. He was thrilled. He was able to do one at a time, and that was enough for him, because at the beginning he would get upset because he couldn't even really do it. I want to always lift up these guys, a lot of times they only get the negative feedback sent home (Mr. E, paraeducator).

Case 2, Cavalier Elementary School

PE teacher Mr. W expressed his disappointment in himself, that he did not learn sooner how to address the diverse needs of all students or understanding the different identities and experiences of his students.

They [*pre-service teachers*] need to be instructed on the good components of a lesson plan. Becoming a reflective teacher and building repertoire with students, to build culture

in your classroom and in your school. If you do not have repertoire with students, you will not be successful. You just can't.

The focus group conversations also included how outside factors may impact students and connecting to personal experiences with their own children.

Mr. A (PE teacher or paraeducator?): I always view it as, I use the word evolution. I look at how I'm teaching and coaching, and for me over the years. I think this changed when I became a dad and I had my own children. That change just inadvertently, subconsciously, it changes. Who you are, when you become a parent, you start to see things through a different lens, like even talking to parents and interacting with kids before I had kids. You think you know what it's like to have a child, or what it means to be a parent, and you don't have a clue even now I don't have a clue. I sit there and go, well, what is the right decision to make? But I think my evolution, the biggest part of it has been on that I make the assumption that when I'm dealing with someone else's child, that is their most precious entity, that is something that they value, I know that's different along the spectrum, but I know how much I care about my kids. Kids more than ever, what they're struggling with, this is a crazy time, events, pandemics, social media, and I mean I could go on and on.

Mr. A: I care less about what I'm teaching them, more about who I'm teaching. In the beginning my career used to be. I need to teach my lesson. I need to hit the standards I need to get the curriculum I need. Now, it's like, Okay, I need to hopefully be an adult in their life. That's gonna give them something for their tool box later. That's gonna make them a better human being. And I'm just happening to use Phys. Ed as a vehicle to do

that. And that was definitely not my mantra 27 years ago, when I started. Like, I think more than ever kids need life skills.

Ms. M: Well, one of my philosophies is always to treat all of the students as I would want my own children to be treated. I know my kids are older than both Mr. A and Ms. S. They're grown. I know those are the teachers that my kids still talk about to this day. There's only a handful, considering how many years they went to school. There's only a handful that were impactful. But on the flip side, with the instructional assistant [paraeducators] I know I can also do that. I try to think of providing an overall positive experience...getting them up and running and giving them the confidence to do what it is they need to do in that class.

Case 3, Eagle Elementary School

The paraeducators at Eagle Elementary spoke about their growth in taking initiative and focusing on what they can control, embodying Dewey's philosophy of lifelong learning. Ms. S, in particular, expressed a desire to understand the purpose and real-world application of PE activities.' Her reflections indicate a commitment to better supporting her students by understanding each one's unique needs.

I have one. She likes to walk in a circle. She hates going to the gym so it is comforting to her to hold on to me and squeeze my elbow skin and we just walk for 20 min because that'll keep her from having. I want her to be more active, to know how to do that (Ms. R, para, Interview)

I enjoy learning, I will ask 'who's got a journal article I can look up? Give me your username!' I want to learn for my students. Gen Ed students might be on a soccer team or something, so of course they are still getting opportunities our students are not, and I want to help that (Ms. S, para, Interview).

The PE teacher at Eagle Elementary demonstrates a genuine kindness and motivation for his students' success in physical education. However, he faces challenges in effectively teaching students with diverse needs. His past experiences with lessons not going as planned or failing to achieve success may have contributed to a mis-educative perspective. This outlook mistakenly suggests that students with disabilities cannot participate in 'typical' or 'normal' lessons. Such experiences, unfortunately, may inadvertently reinforce ableist ideas. This situation underscores the importance of learning and understanding the varied needs of all students to overcome such misconceptions and foster a more equitable learning environment.

[Speaking on changes in teaching approaches] Getting the student to feel comfortable moving in the room and doing certain things with me. That's a sense especially for that population. For me it's individual victories with the individual students, so I had to find that as a successful lesson. You know it's it's not like the typical lesson (Mr. W, PE Teacher, Interview)

Communication, Relationships, and Collaboration

The study underscored the crucial role of effective communication and collaboration among paraeducators, PE teachers, and students in supporting students with disabilities. Each participating school exhibited unique dynamics in the interactions between paraeducators, PE

teachers, and their students. While most practitioners demonstrated a supportive attitude and a genuine interest in getting to know the students, challenges in providing adequate support were also evident. However, the overarching sentiment reflected a deep commitment to the welfare of the students, which often motivated individuals to pursue careers in public education. The relationship dynamics between paraeducators and PE teachers varied across schools, as seen in the differences highlighted through observations, interviews, and focus group discussions. This variation points to the complex and nuanced nature of these professional relationships and their impact on student support in physical education settings.

Case 1, Mountaineer Elementary School

A key highlight from this study was the impact of the positive relationship between paraeducators and the PE teacher on the learning environment. When these professionals collaborate and support each other, it creates an enhanced environment that encourages successful learning experiences. The team at Mountaineer Elementary displayed this through their frequent interactions, not just in PE class but also other settings, such as her weekly visits to the special education classroom to check on the students and paraeducators. During the focus group interview, a particularly beautiful moment occurred at the end when expressions of gratitude were shared openly among the team. The PE teacher reflected on her journey, acknowledging that she initially felt the need to figure out everything alone. Over time, she realized the value of the paraeducators in her class. Similarly, the para expressed admiration for the PE teacher's dedication to the students and efforts to create the most equitable learning experiences.

Mrs. H (PE Teacher) The fact that my instructional assistance listen to the directions and know what with the rules of my game and what the expectations are...they're there to Reiterate them for every student like they they're willing to help out everyone

Ms S (Paraeducator): It's good for our kids to be in the smaller group because if they have trouble with a certain direction or a certain skill. They could kind of feed off the others and see how the others are doing it and they can learn from each other".

Mrs. H, (PE Teacher): I have reached out to almost everybody in this group to, you know, help me with a certain activity or to demonstrate or to help with another student... I have learned from my early on to utilize the help that I get in my room".

Mr. E (Paraeducator) : Our peers will definitely be the biggest resources... just having them to learn from on a daily basis... I don't think any training would have helped me with this particular situation. It was just them kind of leading me through it"

The PE teacher...knows that we have high expectations of our students with behaviors...she's extremely patient...she's never been like that's your job, you handle it...She's more than willing to step in and take charge on that (Mr. E, para, interview)

We have a very good relationship especially PE and yeah and that's why it's so good that we're on the same page and even Sometimes we'll make a little deal like if the students have a good day. They could go help Mrs. H you know do something with the equipment or have a little extra time in the gym and she's really good and she knows that if they didn't earn it then that's it. She's not going to give in which is really good (Ms.R , Para, Interview)

Case 2, Cavalier Elementary School

Of the themes in this study that were revealed, the communication and collaboration was the most discussed across all of the groups. Each case had similar yet very different dynamics on several different discussions. The praise and gratitude expressed in each of the cases were very different. It was interesting enough to listen to:

Ms. S: You know if they're doing a certain exercise or playing a game in PE and they don't fully understand it. It's giving them that one on one attention, giving them that one on one explanation and trying to do it in a discreet way but if they don't need you in that one moment to be there to help any of the students as an extra set of hands".

Ms. M: And you know Mr. A welcoming to that always in his and understands that I think that's the key. It's all relationships.

Mr. A: The way I view it, and I hope you both feel this way. My goal is that I treat everybody the same. We're all teachers. I don't care what your title is. We're all there to guide and help kids, and I think if they see how many, because at times there are 3 adults in the room. It might be me and 2 instructional aides that we're there to help everybody, and I think that helps everybody. If they know there's a third adult like I might be teaching and something's going on. One of the students may go to Ms. but I think that's a testament to what we do, that we're all there to help. The kids sense that okay, this is another adult who can help me and that's a credit to Ms. M and Ms. S. That the kids feel comfortable and I think that stems from what Ms. M said, I think we create a situation that like these are all. They always say it's a microcosm of the bigger picture. I think kids

in Amsterdam. I think we've created a scenario over the years that we're all adults, and we're here to help, regardless of my title or my role.

Future Collaboration Opportunities

The practitioners validated that there is a strong desire for more collaboration amongst paraeducators and PE teachers, but they also noted that there is just not enough time within the school day for regular meetings. Ms. M and Mr. A discussed how it would be beneficial to have designated time to be dedicated to reflective conversations, similar to that of a PLC.

Ms. M: But overall, I think that the instructional assistance should have more time to meet with the related arts teachers in general. I think that probably you know, it wouldn't solve all of the problems, but walking in blind and not knowing what the expectations of the teacher are. The teacher, not always knowing our students very well, and what their abilities or disabilities definitely makes it definitely makes it harder on us. So a little bit of time just carved out, I think you know, would definitely be helpful.

Mr A: It would be great to go back and forth conversation, but they might give us some insight as to what's going on with this child. It could be something related to home, or they're coming from this school, like again, we've had a lot of students like, let's say they were a triangle now they're here. So they're in the district, but in a completely different setting at one school. Different cultures. I think about all those little things. I agree with you, Ms. M. If there was an opportunity in the same format like have a roundtable discussion with the aids and the related arts.

Conversations about relationships not only in physical education but outside of the classroom and school as well. How important it is to understand more about the other person.

Ms. S: I hear it from Ryan, and I hear it from driving these stinky boys home from car pool. Just how much they love it, and I remember I told you last year the beginning of cross country. My son did not do it last year. They hated it. None of them wants to do it. And then, at the end of the season, they're like, I love it. It was the best thing I ever did. So I brought my son to bring her child to work the day he met Mrs A, and he's like, Sign me up. I'm doing it. So you are making a difference. You truly are doing the things that you say. And that's that's all.

There is a notable miscommunication between paraeducators and the PE teacher at Cavalier Elementary. Paraeducators often believe they should take a step back, allowing the teacher to lead and intervening only as necessary to promote student independence. This was confirmed through observations of the paraeducators hesitating before intervening. However, the PE teacher expressed in a one-on-one interview that he feels the paraeducators sometimes don't listen and can inadvertently exacerbate situations. That they only step in when things 'go off the rails.'

Additionally, he commented on the nature of the paraeducator role. While acknowledging that some are passionate about working with children, he also recognized the current issues related to the qualifications and compensation of paraeducators. He noted that reasons for taking up a paraeducator position vary, and it's not always a role that is actively sought after or desired.

There is definitely a shortage of IAs [*instructional assistants*] and a shortage of quality.

Often I wonder, do you even want to work with kids? This wasn't their career goal, it was a job (Mr. A, PE teacher, Interview)

This aspect of the conversation, concerning the expectations and roles of paraeducators, was notably absent in discussions with them. This omission may be attributed to a perceived social desirability bias, where the PE teacher did not want to discuss more sensitive topics. This situation points to a potential misunderstanding of roles and expectations, as well as the paraeducators' perceptions of how they should best support their students. This aligns with current research on issues with lack of training and role ambiguity.

Case 3, Eagle Elementary School

The results of the relationship of practitioners unable to come together for an interview to share experiences was insightful to the importance of communication and collaboration. The lack of relationship between paraeducators and PE teachers seemed to stem from the poorly structured small group PE sessions for students with disabilities. Creating frustration and disappointment for students. When paraeducators entered the classroom during observations, there was little to no interaction. The paraeducators would ask a question and brief answers would be provided. Everyone was very much supporting a student one-on-one and focusing on the task. The paraeducators would communicate and try to get students to work together. During one observation, when there were not structured activities planned, the paraeducators set up a kickball game. That is when the PE teacher began to interact more.

I'm telling you there's never a plan... if there's a ball out I'll like to pick it up and throw. But it's not like everybody is okay everybody. We want to make it from A to B and they're not helping someone get from A to B. (Ms. S, Interview)

I don't think they had any great suggestions on how to help [kids with autism] at all like I think they were just kind of like. Their knowledge was more PE knowledge and then I was hoping that we would have more. The knowledge of how to help the kids do what they were asking us to do (Ms. R, Interview)

They all know to come in and they are. They're helpful and they generally just want to be with the kids and I don't know if they enjoy their job but they're good at it. Yeah. So these are very helpful here (Mr. W, Interview)

Mr W. (PE teacher) speaks on building relationships with students, but paraeducators did not seem to agree that he values that connection.

If I could just get him like hey i'm here let's take this ball that i'm handing you and let's go over here. Let's put it in the hoop. if I can get them to do something like matching. You know I have 6 full of hoops out all different colors and different yarn balls so they can successfully go and do the matching piece (Mr. W, PE Teacher, Interview)

These results integrate a range of perspectives, explaining the complex dynamics involved in providing effective physical education to students with disabilities. The emphasis on adaptability, professional development, evolving philosophies, and the crucial role of communication and collaboration emerges as key themes in the context of this study.

Discussion

This study aimed to explore the experiences of elementary paraeducators and physical education teachers in supporting students with disabilities in the PE settings, revealing four key findings. First, it highlighted the impact of limited professional development and education on addressing diverse learning needs, with educators facing challenges due to inadequate specific training. Secondly, the necessity of flexibility and adaptability in PE was emphasized, skills that are honed over time and enhanced through effective peer communication. The third finding noted how educators grew in their careers with years of experience. They noted various external factors that influenced student experiences, but they also overcame these external factors by shifting their teaching philosophy towards student-centered learning. Growth also was influenced by educators' personal experiences and a focus on collaborative approaches. Finally, participants recognized the profound impact of relationships and connections with both students and peers on the learning environment. These insights collectively highlight the diverse challenges and evolving strategies in creating an equitable learning environment in physical education for students with disabilities.

It was unanimously agreed that one of the biggest challenges when supporting students with disabilities in PE was the lack of training specific to understanding how to modify and adapt lessons to a variety of disabilities and learning needs. This study's findings resonate with the last two decades of literature, which has emphasized a critical gap in PE teachers creating an environment that supports students with disabilities in PE (Bryan et al., 2013; Davis et al., 2007; Goodwin et al., 2022; Haegele et al., 2019; Haycock & Smith, 2011; Lieberman & Conroy, 2013; Maher et al., 2016; Morrison & Gleddie, 2021; Swenson & Haegele, 2022). One participant, the PE from Eagle Elementary, expressed the challenges of teaching students with

disabilities focusing more on what they can't do versus what they can. When an individual is only exposed to a negative view or mis-educative view, it is challenging to see it any other way (Bjorke et al., 2021). A more noticeable problem emerged, PE teachers were not will to participate in professional developments due to mis-educative experiences. These past PD experiences were ineffective and often not viewed as a valuable use of time. Dewey emphasizes, 'everything depends on the quality of the experience which is had' (Dewey, 1938, p. 27) This creates a cycle of mis-educative experiences until practitioners are provided quality PD experiences, demonstrating best practice supporting students with disabilities and relevant, effective training.

Participants in the study stressed the importance for professional development to evolve beyond traditional handouts, textbooks, and slide shows, advocating instead for more practical, demonstration-based learning. This aligns with Dewey's (1938) emphasis on building quality experiences to reconstruct and deepen understanding, particularly in implementing differentiated instruction tailored to all student needs. Moreover, these practical demonstrations and hands-on experiences should be collaboratively undertaken by both paraeducators and physical educators (Bryan et al., 2013; Lieberman & Conroy, 2013; Morrison & Gleddie, 2021). Including video evidence or physical demonstration of these activities. Also, PE teachers and paraeducators should have more scheduled and structured time provided by administrators (utilizing professional development days) for practitioners to communicate and collaborate.

An equally significant issue is the quality of the relationship between PE teachers and paraeducators. PE teachers expressed frustration with paraeducators not intervening until challenging behaviors arose, contrasting with paraeducators who felt their role was to step in only as needed. It is important for practitioners to be on the same page to implement strategies to

support students. This group demonstrates how the lack of knowledge of hovering over students in PE. Creating unintended negative impacts on the development of students' motor and social skills when a paraeducator remains in close proximity (Giangreco, 2005; Goodwin et al., 2022; Haegele et al., 2019). In other instances, paraeducators reported seeking out training independently but lacked support from PE teachers in organizing or structuring classes to incorporate this new knowledge, often resulting in an 'adapt-on-the-go' approach rather than a systematic implementation. This approach waits for a problem to arise instead of being proactive on how to best include the student. When adapting on the fly, certain equipment or instruction is needed that is challenging to implement. This situation emphasizes the need for a more collaborative and integrated approach, where both PE teachers and paraeducators work together in planning and executing inclusive strategies, ensuring that both sets of skills and knowledge are effectively utilized.

This study's methods shed light on the crucial importance of collaboration and professional connection, particularly between paraeducators and PE teachers. Recent shifts in research focus to include more of the paraeducator perspective, previously overshadowed by a disproportionate emphasis on PE teachers, have yielded significant insights (Morrison & Gleddie, 2021; Goodwin et al., 2022; Zobel & Hwang, 2020). In this study, gathering experiences from both groups individually and then collectively in shared spaces, interesting results emerged.

One notable case involved both the PE teacher and paraeducators at Mountaineer Elementary who, despite lacking specific training in supporting students with disabilities in PE, maintained a highly supportive and collaborative relationship. Individually, they acknowledged and respected the challenges each faced, a mutual understanding fostered by effective

communication. This was particularly evident in their focus group sessions, when asked about personal experiences, they chose to use their time to express appreciation for each other's efforts. Acknowledging challenges but providing praise for the support of the other position. This dynamic, ending with tearful and emotional expressions of gratitude, highlighted how strong interprofessional relationships can support more educative experiences to reconstruct and build upon. This study highlights the lack of professional developments, unclear objectives of physical education, separate training and miscommunication can greatly impede collaboration between PE teachers and paraeducators. Practical strategies that have been provided in current literature focus on one group (PE teachers or Paraeducators) implementing these strategies (Geslak, 2019; Lee & Haegele, 2016; Miller et al., 2019; Seely et al., 2020). Often identifying PE teachers solely responsible for establishing communication norms and roles. This should be a collaborative effort with the guidance of administrators who provide structured and scheduled time to complete these collaborative strategies.

In contrast at Cavalier Elementary, more comments about the motivation and knowledge of other practitioners were questioned. In extreme contrast, the final group's lack of a cohesive relationship was reflected in their PE practices. A practice observed too often of “rolling out the balls” instead of planning structured activities. This group typically conducted unstructured PE classes, where students often did not engage with peers or develop foundational skills. Their absence from a collective focus group further indicates how a lack of collaboration can hinder the implementation and effectiveness of any training, negatively impacting the learning for students with disabilities.

When reviewing the data and coming back to the research question, I reflected on what is truly important to teachers in public schools currently. I reflected on observations and the

collaboration was apparent just in observations themselves. Even within private one-on-one conversations, both positions had only positive and supportive comments on their peers. What do they need the most to overcome more challenges added each year? I started this study with a question focused on what professional development and resources can be provided, but I go back to my inquiry and reflect if providing opportunities for connection is of more value. Utilizing a hermeneutics phenomenological approach encouraged taking a step back to view the experiences of inclusive physical education from a variety of lenses. A strength of this approach allows researchers to “attempt to see what went unseen before (Ellis, 1998, p. 26)” An approach that is particularly valuable in the context of paraeducators in PE, where recurrent barriers to successful integration of students with disabilities are repeatedly documented in literature, yet little advancements in strategies to overcome these challenges are observed. This approach does not only include linear path to a solution but emphasizes the backwards arch, to re-evaluate initial interpretations to uncover deeper issues and recognizing a research cannot remove their previous experiences, beliefs, cultures, from the interpretation of the data (Morrison, 2019). Although this can be helpful in identifying researcher bias, it also creates conflict on multiple interpretations of the same phenomenon, not always providing clarity. This can lead to research being unable to replicate to further inquiry to the phenomenon that is being studied. Overall this methodology approach provides strength in uncovering deeper issues within a phenomenon that often go overlooked.

Conclusion

This study highlights the challenges and essential strategies in supporting students with disabilities in physical education settings. Emphasizing the significant role of professional development and the power of collaborative relationships. The findings reinforce a critical need

for evolving professional development beyond traditional methods, advocating for more practical, hands-on, and collaborative approaches in training. This aligns with Dewey's (1938) emphasis to become lifelong learners, the building quality educational experiences is needed to reconstruct for better learning experiences in the future. The study also highlights a prevalent issue in the field: the lack of specific training and its resulting impact on educators' perceptions and abilities to support diverse learners in PE. More importantly, it reveals that while training is essential, it is not the sole factor in achieving inclusivity in physical education. The quality of relationships between PE teachers and paraeducators plays an equally vital role. Strong, communicative, and collaborative partnerships between these professionals can significantly enhance the learning environment, even in the absence of specialized training.

Utilizing hermeneutic analysis, “unless it is totally alien, we will have some preliminary understanding of what kind of phenomenon it is and what possible things might happen to it (Packer & Richard, 1989, p. 33). Understanding in these experiences providing professional development is not always the clear path to path solving challenges. Moving forward, it's essential to foster collaborative experiences, utilizing Professional Learning Communities (PLCs), and providing educators with administrative support during instructional workdays to lay the groundwork before introducing new training. It is critical that practitioners are aligned and have a solid foundation to communicate PE goals, roles and expectations, reflect on past experiences, and adapt to specific student needs. Moreover, including students with disabilities more actively in professional development research is imperative. As efforts focus on enhancing learning opportunities for these students, their involvement in developing such professional development programs is crucial.

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