

PEDAGOGY

Analysis of a Physical Education Teacher Education Field Experience of Working One-on-One With Students With Severe and Profound Disabilities in a Self-Contained Environment

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Abstract

Previous research suggests that physical education teacher education (PETE) programs offer few adapted courses and provide limited hands-on experiences with teaching students with disabilities, specifically those in a self-contained environment. This study aimed to analyze PETE students' and classroom teachers' perceptions of a field experience designed to provide PETE students the opportunity to work one-on-one with a student with severe and profound disabilities in a self-contained environment. Seventy-one pre–post electronic surveys (female = 20, male = 51) measuring the perceptions of PETE students working one-on-one with a student with a severe disability in a self-contained environment were collected. PETE student and classroom teacher interviews were also conducted. Results revealed a significant difference in confidence for all PETE students pre– to post–field experience ($p < .001$) and a moderate level of enthusiasm at the beginning of the experience and great satisfaction at the conclusion. PETE students reported a lack

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of experience prior to the field experience, but experienced growth through one-on-one instruction and gained a greater appreciation for life. Teachers appreciated the increased instructional time and their students' enjoyment. They also expressed a desire for the field experience to be lengthened. Based on the results of this study, it is evident that providing PETE students with field experiences to work with students with severe or profound disabilities can be a valuable part of a university PETE program. It is recommended that PETE programs seek opportunities in their area to assist programs that work to meet the needs of these students.

Service-learning opportunities among university physical education teacher education (PETE) programs have recently become more common (Bishop & Driver, 2007). However, many of these are devoted to the learning of teaching general physical education, with few “real-world” opportunities for PETE students to work with students with disabilities (Bishop & Driver, 2007). It is common for PETE programs to offer a course specifically designed for teaching students with disabilities (Hodge, Tannehill, & Kluge, 2003; Murphy, 2007; Rizzo & Kirkendall, 1995). However, these courses often offer opportunities for PETE students to expand their content knowledge, with little practical experience of working with students with disabilities (Hardin, 2005; Woodruff & Sinelnikov, 2015). Specifically, a limited amount of research examines student teachers' participation in service learning devoted to assisting students with disabilities in a self-contained environment (Rust & Sinelnikov, 2010; Sato & Haegele, 2017). For PETE students to be more adequately prepared for teaching students with disabilities, more field experiences are warranted (Hardin, 2005; Rust & Sinelikov, 2010; Sato & Haegele, 2017)

Block (1992) provided an understanding of the terms *severe* and *profound* to better classify the type of disabilities that student teachers should be prepared to assist. He described the term *severe* as “students who need exceptional assistance to benefit from educational and post-educational experiences” (Block, 1992, p. 199). Teachers should implement strategies to help prepare their students for participation in community settings once their education is complete. The term *profound* refers to students “who have very limited skills in terms of awareness, movement, and communication”

(Block, 1992, p. 199). Although learning for students with profound disabilities can occur, different instructional approaches should be considered due to the limited level of awareness and communication from these students. Limited field experiences in a PETE preparation program can potentially decrease PETE students' confidence of working with students with severe and profound disabilities. Even more, teachers who are hired to work with these students will face a daunting challenge.

In a review of PETE program demographics, Ayers and Housner (2008) discovered that 98% of responding programs provided field experiences, with 77% occurring in their first or second year. While this is a positive trend for the profession, only 19% offered a course or program in adapted physical education. These results suggest that many PETE students rarely, if ever, receive any experiences of working with students with disabilities.

Although experiences in adapted physical education have been limited, research findings have been positive. Studies have shown that adapted courses and field experiences have positively affected preparation and attitudes toward teaching students with disabilities (Block & Rizzo, 1995; Hardin, 2005; Hodge, 1998; Hodge et al., 2003; Rust & Sinelnikov, 2010; Sato & Haegele, 2017; Woodruff & Sinelnikov, 2015). Block and Rizzo (1995) discovered that teachers' attitudes toward teaching students with profound disabilities were more favorable when it was associated with additional adapted physical education coursework. Examining physical education teachers' view of their PETE programs, Hardin (2005) discovered that teachers credited their field experience teaching opportunities for enhancing their overall confidence for teaching students with disabilities. Rust and Sinelnikov (2010) found that even though PETE students felt prepared for teaching students with disabilities, they desired more hands-on experiences during their preparation program. With PETE students' increase in confidence and desire for more experience, additional service-learning opportunities can continue to provide positive change in the lives of PETE students and students with disabilities. Examining service-learning opportunities with students with disabilities, Woodruff and Sinelnikov (2015) discovered that PETE students progressed through three stages of learning during their service-learning experience: anticipation, familiarization, and

commitment. In the final stage, they shifted from “an internal focus on themselves to external concerns about well-being and improvements in the lives of the young adults with disabilities” (pp. 305–306).

Research has indicated that PETE programs need to include more practical experiences of working with students with severe and profound disabilities (Takahiro, Hodge, Casebolt, & Samalot-Rivera, 2015). Block (1992) believed that physical education for students with disabilities should “emphasize the same goals and objectives as regular physical education with modifications as needed to ensure safe, successful, and beneficial participation” (p. 210). For this to occur, PETE students need additional knowledge and experience of teaching physical education to students with severe and profound disabilities. One study examined graduate students teaching physical education to students with severe and profound disabilities during practicum experiences (Sato & Haegele, 2017). Although PETE students dealt with some unpredictable behaviors and ambiguous roles, through the support of cooperating teachers they experienced satisfaction in contributing to the education of students with severe and profound disabilities. The challenge for PETE undergraduate programs is finding additional time for field experiences or adding additional courses to an already crowded degree plan.

Therefore, this study analyzed PETE students’ and classroom teachers’ perceptions of a field experience designed to provide PETE students the opportunity to work one-on-one with students with severe and profound disabilities in a self-contained environment. Specifically, this study aimed to determine PETE students’ level of excitement and confidence of working with students with disabilities prior to and after the field experience and the beneficial aspects of the experience. In addition, this study describes the field experience format, to better assist PETE programs in the future. Results from this study can affect future opportunities of working with students with disabilities and potentially enhance the learning experience within a PETE program. As a result, PETE students will be more prepared for creating a quality physical education experience for all students. In addition, this study can provide PETE programs with the necessary feedback to strengthen the effectiveness of their teaching methodology and enhance the learning experience for all students.

Method

Participants

An electronic survey was delivered to PETE students to measure their perceptions of working one-on-one with students with severe and profound disabilities in a self-contained environment. Seventy-one surveys (female = 20, male = 51) were collected. Each student was an undergraduate physical education major. In addition, five classroom teachers and four PETE students participated in a one-on-one interview at the conclusion of the field experience.

Informed consent was obtained from all participants prior to the beginning of data collection. The research protocol was approved by the university's Institutional Review Board for Human Subjects Research.

Procedure

PETE students participated in a 15-hr field experience devoted to working with a special school for students with multiple disabilities ranging in age from 3 to 22. The school is located in the southeastern United States and works to meet the unique needs of students with multiple disabilities. The majority of these students are medically fragile and have conditions that at any moment may appear as life threatening. The faculty and staff consisted of 15 classroom teachers, 40 educational support professionals, 12 nurses, three physical therapists, three occupational therapists, two speech and language pathologists, one vision teacher, one librarian, one guidance counselor, and one adapted aquatics and physical education teacher.

To attend the school, the students must first be enrolled in the school in which they are assigned. Then they are referred to the Office of Exceptional Children. Upon further investigation by special education supervisors and the school's administration, the students are enrolled if it is deemed the most appropriate placement and the least restrictive environment. All students participate in specific objective-driven classroom instruction based on their own individual goals and objectives from their individualized educational plan (IEP).

In addition to classroom instruction, the students have the opportunity to engage in activities that are both fun and educational. These include music, library, swimming, basketball, and cheerleading. Other activities include a safety fair, community-based instruction outings, fall festival, Special Olympics, Valentine's social, prom, and a field day.

The school staff, with cooperation and commitment from the home and community, provide a supportive foundation for lifelong learning in a safe, nurturing, and challenging environment, while guiding all students to reach their individual academic, physical, social, and emotional potential. The faculty and staff of the school are dedicated to meeting the unique needs of the students. They believe that education should develop the whole student to his or her fullest potential. Realizing that all students do not learn at the same pace nor by the same methods, the school provides a variety of learning experiences and instruction.

Specifically in the area of physical education and aquatics, accommodations and modifications are a must in every activity. Most typical physical education classes teach gross motor movements to encourage lifelong physical fitness. The same theory applies to the adapted physical education classes, but the level of assistance and participation depends on the abilities of each student. In each physical education session, the educational support professionals attend with their class. All therapists are aware of the physical education schedule and attempt to attend with the students on their caseloads. While students are encouraged to be as independent as possible, hand-over-hand and maximum assistance is required for each student to be able to participate safely in the activities. When planning physical education activities for students with multiple disabilities, one must consider the limitations as well as the abilities of the students. Faculty concentrate on specific tasks, independent movement, intrinsic motivation, and overall enjoyment, as opposed to specific gross motor movements such as skipping, hopping, or running. Because the majority of the students are in wheelchairs, the activities must reflect the ability of the students and the adults to perform the activity. Some of the activities include parachute movement, rhythm movement, following directions, tossing and catching, and body movement and awareness. Ultimately, the classes focus on

having students move and follow directions as independently as possible. Literacy is a main component of all instruction schoolwide.

Literacy is incorporated into each physical education class with the teacher and students discussing a word of the week, reading a story that includes movement or relates to the lesson, and spelling out words within the activities or stations. The school also has a temperature-controlled swimming pool and multiple pieces of adapted equipment so the students can move and participate not only in physical education class, but also within the school environment and in the community. Students have adapted tricycles, gait trainers, and standers that allow them to move more independently and gain a different view of the world around them. The indoor swimming pool provides a sensory-rich, virtually weightless environment where the students can move freely and safely. Adapted physical education and aquatics contributes to the students' overall education and ability to learn. The school aims to help each student develop a positive self-concept, realize the value of learning, achieve the maximum level of independence, and become a productive citizen.

During the first half of the semester, PETE students learned about teaching students with disabilities. They became familiar with terminology, disabilities, and laws created to protect the rights of students with disabilities. Next, PETE students visited the school to take a tour, meet the teachers and students, and learn more about the goals and vision of the school. They were then randomly paired up and assigned to assist a classroom teacher with activities in that class. Each day, PETE students reported to the classroom where they worked in group and one-on-one settings for 90 min. This occurred twice a week for 5 weeks.

Examples of activities that PETE students experienced include rhythm and dance, basketball, aquatics, tossing and catching, following directions, and independent movement advanced communication (i.e., use of communication devices, reading body language, and interpreting verbal communication). As mentioned, literacy is a large part of all instruction within the school curriculum. PETE students led and participated in physical activities and in recreational games such as Bingo, read-alouds, and interactive games on the smartboard. They were responsible for completing a reflection after each visit and for designing a physical activity task for an individual student or the entire class. PETE students were

given the option due to the wide variety of abilities in the school. They also assisted with some of the school-sponsored events, which allowed them to get to know the students with disabilities on a more personal level. Finally, PETE students were required to complete a notebook that included a compilation of acquired materials from their experience at the school. The notebook provided PETE students with a tool to assist them when working with students with disabilities. Having access to the information learned during a field experience can provide much needed confidence for many situations that PETE students may encounter.

Instrumentation

This study employed qualitative and quantitative measures. The researchers collected data through a survey that contained Likert-scale and open-ended questions. They created the survey using questions targeted for obtaining data related to PETE students' and classroom teachers' experience at the school. To help achieve content validity, the researchers had individuals with experience working with students with disabilities evaluate the survey. The survey was distributed to PETE students prior to and at the completion (Table 1) of their field experience. In addition, the researchers interviewed four PETE students at the beginning and end of their field experience to gain more insight on effect the field experience had on the PETE students. The researchers interviewed each classroom teacher at the conclusion of the field experience to provide perspective on how the overall experience affected each teacher's classroom. Table 2 includes a list of questions that were asked to the PETE students and teachers.

Data Collection

The researchers collected data through a presurvey and post-survey that assessed PETE students' perceptions of participating in a field experience devoted to assisting students with profound and severe disabilities. The researchers interviewed all classroom teachers and four PETE students to provide a more in-depth discussion of the field experience. Finally, the researchers were present at each day of the field experience. During that time, PETE students were observed working in the classroom. The researchers maintained field notes to provide further analysis of the experience.

Table 1*Pre- and Post-Field Experience Survey*

Pre-field experience	Post-field experience
1. Please choose your gender Male Female	1. Please choose your gender Male Female
2. Please choose your appropriate class rank Freshman Sophomore Junior Senior	2. Please choose your appropriate class rank Freshman Sophomore Junior Senior
3. Please describe your experiences of working with students with disabilities prior to your field experience.	3. Name 3 things that you enjoyed most about your field experience.
4. Rate your excitement level prior to starting your field experience. (Scale 1–10)	4. Were your assigned teachers cooperative throughout your experience? (Scale 1–10)
5. Please provide an explanation for your previous answer.	5. How will the time spent with the students benefit you in the future?
6. Rate your confidence level for teaching students with disabilities prior to starting your field experience. (Scale 1–10)	6. Please describe how this experience will help you to include students with disabilities in regular Physical Education classes.
7. Please provide an explanation for your previous answer.	7. After completing the field experience, rate your confidence level for teaching students with disabilities. (Scale 1–10)
	8. Rate your overall experience. (Scale 1–10)
	9. If you could change anything about your field experience, what would it be?

Table 2*PETE Student and Teacher Interview Questions*

Student-Pre

1. Tell me about your experiences with individuals with disabilities. What do you remember most?
 2. Working with individuals with disabilities. Tell me what you think would be rewarding? Challenging?
 3. What do you think this experience will do for you?
 4. How will it impact you as a Physical Education teacher? As a person?
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Student-Post

1. Tell me about your experience.
 2. Did your excitement level increase during the experience? Explain.
 3. What was the most rewarding? Challenging?
 4. Did your confidence level increase? Explain.
 5. What did this experience do for you?
 6. How did it impact you as a future Physical Education teacher? As a person?
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Teacher-Post

1. How did the PETE students assist you?
 2. What overall impact did this have on you as a teacher?
 3. In the future, what would be most beneficial to you with regards to student assistance?
 4. How did your students respond?
 5. What impact does it have on them as students? Can you share an example?
 6. Overall, would you like to continue to see assistance from the PETE students? Why? Why not?
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Data Analysis

The researchers employed descriptive statistics to provide information regarding PETE students' Likert-scale responses to the survey. A one-way ANOVA determined whether change occurred regarding PETE students' confidence. Finally, the researchers analyzed open-ended responses from the PETE student surveys, as well as from PETE student and teacher interviews, using con-

stant comparison (Corbin & Strauss, 2008) and analytic induction methods (Patton, 2002). The researchers transcribed verbatim the audio-recorded data and then coded data with the goal of categorizing common themes based on the selected responses. The researchers then reanalyzed the data to confirm the created themes.

Results

A significant difference was found in confidence for all PETE students from pre- to post-field experience, $F(1, 140) = 21.99$, $p < .001$, as well as for males, $F(1, 100) = 15.98$, $p < .001$, and females, $F(1, 38) = 6.08$, $p < .05$ (see Table 3). At the beginning of the experience, PETE students expressed a moderate level of enthusiasm for working with students with severe disabilities ($M = 7.9$, $SD = 2.09$). This occurred even though 65% had no previous experience working with students with severe disabilities. PETE students expressed that their teachers were cooperative throughout their experience ($M = 8.9$, $SD = 2.04$). At the conclusion of their field experience, PETE students reported great satisfaction with the overall experience ($M = 9.4$, $SD = .96$).

Analysis of the surveys and interviews of the PETE students produced the themes of (1) lack of experience, (2) one-on-one instruction, and (3) appreciation for life. The teacher results produced the themes of (1) increased instruction, (2) student enjoyment, and (3) desire for lengthened field experience.

Students

Lack of experience. PETE students' lack of experience affected their level of enthusiasm for working with students with severe disabilities prior to the beginning of the field experience. There was a level of excitement, but PETE students expressed concern due to the new experience. One student provided, "I was unexperienced and very nervous because I had never been in an atmosphere like this school." Another PETE student had a similar response, "I am excited to get an opportunity to help students out but I am nervous at the same time because I do not know what to expect." Even with the lack of experience, PETE students expressed appreciation for receiving the hands-on training: "I have always had a heart for students with disabilities and am very excited about gaining more exposure in the gym/classroom."

Table 3
Descriptive Statistics for Effectiveness of Intervention

Variable	Group	Pre	Post	Intervention effect	
		<i>M (SD)</i>	<i>M (SD)</i>	<i>F(df1, df2)</i>	<i>p</i>
Confidence	All (<i>n</i> = 71)	6.59 (2.42)	8.16 (1.42)	21.99 (1, 140)	.000
	Male (<i>n</i> = 51)	6.54 (2.57)	8.20 (1.51)	15.98 (1, 100)	.000
	Female (<i>n</i> = 20)	6.75 (2.00)	8.05 (1.18)	6.08 (1, 38)	.018

One-on-one. PETE students experienced growth through their one-on-one interaction with the students with disabilities. One PETE student expressed, “It will [prepare me] to help any type of student no matter the challenge or the disability that child may have or present.” Another stated, “It helped me realize that you have to know the student and what he or she can or can’t do. You have to know their limits and help her or him without completely singling them out.” Finally, one PETE student discussed how the experience will help improve teaching ability: “This helped me understand how to modify certain things and know how to keep everyone involved no matter what the circumstance may be.”

Appreciation. PETE students expressed how the experience gave them a greater appreciation for life. One PETE student shared, “After the first day I got to work with the children, instantly they persuade(d) me to do all I can to make my life count.” Another PETE student felt more prepared for future opportunities because of the knowledge gained through the experience: “Just because they have a disability doesn’t mean they can’t be physically active. I learned to find different ways to include students with disabilities into physical education classes.” Finally, another PETE student described the overall benefit of the experience:

It has changed the way I think and view others. It isn’t the disability, it’s the ability of what the students can do. They are human just like everyone else but just needs extra help. Treat them as you would treat anyone else.

Teachers

Increased instruction. The teacher–student ratio was low at the school, but there was still a need for more instructional time. One teacher expressed appreciation for the PETE students:

I was in the middle of feeding and all the other kids were working on activities on the smartboard or working on physical activity positioning. I hate that because I'm over here feeding them and I'm kind of leaving the other kids to themselves and they came in and worked with the kids so they weren't just sitting or looking at the TV.

One teacher shared how one student with a disability had difficulty being around other kids: "Ricky can't always be next to the other kids. Just for him to have that one-on-one (instruction), he loved it, it was beneficial for him to have that one-on-one for that amount of time and have that much fun."

Student enjoyment. Teachers stated that their students loved seeing the PETE students come into the classroom: "My students can tell when someone doesn't want to be around them but they didn't feel that at all. They looked forward to them coming at their scheduled time." Another teacher shared how a normally reserved child opened up when the PETE students arrived: "Michael saw them and got excited and goes straight to them and [he] is not good with strangers. So, that was actually really good for him to be comfortable with someone new."

Lengthened field experience. All the teachers expressed a desire for the field experience to continue at the school. Their desire was that the field experience would be longer in duration. One teacher summarized it best: "Yes! I want [them] to come and I'm looking forward to them coming back next school year and coming for the prom. The children love it because they want to interact and move."

Discussion

Findings from this study provide evidence that opportunities to work with students with severe and profound disabilities can enhance the learning experience for physical education students and provide much needed support to classroom teachers. The uniqueness of working with students one-on-one can enrich awareness and thus provide greater potential for teaching students with disabilities in the future.

Results from this study supported research suggesting that practical experience can positively affect PETE students' confidence and overall satisfaction of working with students with disabilities

(Hardin, 2005; Hodge, 1998; Hodge et al., 2003; Sato & Haegele, 2017; Woodruff & Sinelnikov, 2015). Survey results revealed that although PETE students started out with a moderate level of confidence, there was a significant change after the completion of the field experience. This matches the findings from Hardin (2005), who found that teacher confidence increased after the initial teaching experience with students with disabilities. Similarly, Hodge et al. (2003) found that PETE students believed they could take what was learned through the field experience and apply it to a physical education program. This representation of confidence is needed to provide high-quality instruction to students with disabilities.

Another factor that helped increase confidence and overall satisfaction was the opportunity for PETE students to witness student success. In the beginning, PETE students did not believe that students with severe or profound disabilities would have many capabilities. Many, if not all, were able witness the students having success with communicating, motor development, and expressing enjoyment. After witnessing these abilities, PETE students experienced reduced anxiety and commanded an ownership of their role. Rust and Sinelnikov (2010) discovered that a teacher believed that the success of a lesson was dependent upon the enjoyment and participation of the student. Regarding this study, seeing students experience success helped reduce anxiety and increase PETE students' confidence for working with students with disabilities. Finally, being able to interact with the teachers allowed PETE students to see what it takes to be successful in working with students with disabilities. Takahiro et al. (2015) stated that teacher candidates believed that their confidence increased from having opportunities to interact and learn from special education teachers. Sato and Haegele (2017) found that graduate students could overcome unexpected difficulties through the example established by the cooperating teacher. PETE programs should consider strategies for future engagement between PETE students and special education teachers to enhance the overall experience.

Findings from this study produced some themes related to the PETE student experience. Many PETE students expressed a lack of confidence based solely on having limited or no experience of working with students with severe or profound disabilities. PETE students were somewhat excited about the opportunity, but were not sure what

to expect. These findings support Woodruff and Sinelnikov (2015), who discovered that undergraduate students expressed anticipation about the unknowns involved in working with students with disabilities. From observation, it was noted that PETE students were more at ease once they could have one-on-one interactions with students and have an opportunity to assist them with classroom work or play. This too supports Woodruff and Sinelnikov (2015), who found that undergraduate students entered a stage of familiarization at the end of their second or third week. During this stage, interpersonal relationships develop and student teachers begin to feel more comfortable in their role.

Many PETE programs seek to provide practical experience with the goal of preparing PETE students for teaching physical education. Often, PETE students will have previous experience of working with children, whether in coaching sports, working in summer camps, or interacting with family. These experiences can help PETE students as they transition into the classroom and learn how to become a teacher. This is not the case with working with students with disabilities. Due to their lack of experience, PETE students had low confidence at the start of this study. One factor that had the biggest effect on PETE students' confidence was the opportunity for PETE students to work with students with disabilities one-on-one. This contradicts the findings of Rust and Sinelnikov (2010). In their study, their participant believed that it would have been more beneficial to work with more students, since most practical opportunities would not be one-on-one. Regardless, this study found that working one-on-one for the duration of the experience allowed PETE students to develop a relationship with their student and focus on the student's developmental needs.

In addition, the teachers were appreciative of the attention that their students were receiving. Physical education teachers may be challenged with teaching large classes. Although teachers aim to maximize feedback and increase the amount of learning opportunities, this can be challenging with large classes. With this experience, PETE students could work one-on-one and receive the benefits that come with it. Finally, PETE students expressed a greater appreciation for life. Woodruff and Sinelnikov (2015) mention that the goal of service learning is the "development of a lifelong sense of caring

for others” (p. 306). PETE programs should emphasize the development of “caring” teachers. Regardless of ability, teachers should always place importance on the lives of their students.

Teacher interviews also produced some interesting results. Teachers often find themselves spending a lot of time with each of their students, each who has unique needs. Because of this, other students may be neglected, even in a class with fewer than 10 students. Often, these students are sitting idly with no interaction with others. All teachers enjoyed that their students received more attention due to the PETE students being there. Because of these interactions, they witnessed an increase in enthusiasm from their students. Teachers who work with students with severe or profound disabilities look for any possibility to celebrate success. Teachers shared how they could see improvements in their students who were able to spend time with the PETE students. For those reasons, all the teachers expressed a desire for the field experience to continue the following year. Some even asked if it could be a year-round experience. The positive responses suggest that PETE programs should examine their program to determine if this would be possible.

Conclusion and Practical Application

Research has shown that PETE programs offering field experiences for working with students with disabilities are becoming more common (Bishop & Driver, 2007). Based on the results of this study, it is evident that providing PETE students with field experiences to work with students with severe or profound disabilities can be a valuable part of a university PETE program. A commitment of as little as 15 hr can greatly affect the lives of PETE students and thus greatly enhance their potential for developing high-quality physical education programs, specifically programs that teach students with ALL types of disabilities. We recommend that PETE programs seek opportunities in their area to assist programs that work to meet the needs of students with severe or profound disabilities. These experiences can promote confidence and enthusiasm in PETE students and thus enhance the physical education instruction for students with disabilities.

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