


Spring 5-13-2022

The Effectiveness of Practicums on Preservice Physical Educators' Attitudes and Self-Efficacy Toward Teaching Individuals with Disabilities.

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THE EFFECTIVENESS OF PRACTICUMS ON PRESERVICE PHYSICAL EDUCATORS'
ATTITUDES AND SELF-EFFICACY TOWARD TEACHING INDIVIDUALS WITH
DISABILITIES.

by

Megan E. Johnson

A Dissertation Submitted in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF EDUCATION

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May 2022

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Dedication

This dissertation is dedicated to all the strong women in my life. You who have inspired, guided, provided, sacrificed, mentored, and nurtured me to become the woman I am today, I truly thank you.

“After all, Ginger Rogers did everything that Fred Astaire did.
She just did it backwards and in high heels.”

– Ann Richards

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Acknowledgements

First and foremost, I would like to acknowledge and thank my committee members, Dr. Boyd Bradbury, Dr. Brett Bruininks, Dr. Keri DeSutter, and the newly minted Dr. Tarrah Bisch, for all of their time and effort to guide, mentor, support, and challenge me within the writing of this dissertation. Your feedback, comments, and gentle nudges were met with gratitude and appreciation. Thank you for helping me turn out a product I am genuinely proud of during one of the most arduous journeys of my lifetime.

Second, I would like to acknowledge and thank my amazing colleagues in the Department of Health and Human Performance. Without your support, suggestions, and encouragement for the past five years, I would not be in the professional space I currently am, and for that, I am truly grateful.

Third, I would like to acknowledge my cohort members. This journey we accomplished together will be a bond we share forever. I am proud of each of you for your tenacity and perseverance, but mostly, I am appreciative of your friendship and slightly twisted humor, which we all needed to survive in this program! Thank you for the texts, weird text threads that had nothing to do with ontology or epistemology, and the undying support.

Finally, I would like to thank my wife, Katy. This isn't a thing without you. I couldn't have carried the weight without you by my side, without you going through the same thing. We did this well, not always with a smile, but we did it well. I'm so proud of you and your work, and I felt so supported by you in mine. Thank you, honey (and for making those really cool flashcards for ED 701)!

Abstract

The aim of this study was to explain the effects a practicum had on the attitudes and perceived self-efficacy of preservice physical educators toward teaching students with disabilities in an inclusive learning environment. Existing literature established most physical educators receive one semester-long course in adapted physical education (APE), which often leads to feelings of unpreparedness and negative attitudes toward teaching students with disabilities in the general physical education (GenPE) classroom. The present study utilized a mixed-methods approach to combine quantitative data results from the Physical Educators Attitudes toward Teaching Individuals with Disabilities (PEATID-III) survey (Rizzo, 1993) and qualitative data findings (i.e., reflective journals, summary of experience reports, semi-structured focus group interview) to determine what factors influenced the preservice physical educators (n = 9) change in attitudes and development of self-efficacy during the practicum. The results from this study determined relationship building through 1) connection, 2) valued experience, 3) leading by example, and 4) developing soft skills as a practical approach to changing attitudes toward teaching students with disabilities. Additionally, this study revealed competency and confidence can be developed through knowledge and hands-on experience using 1) course content and 2) modeled pedagogy as valuable tools to build self-efficacy toward inclusion. Finally, this study demonstrated the significance of advocacy as a step toward the future development of positive attitudes and self-efficacy in the APE profession through 1) promoting APE and 2) life-long learning.

Chapter 1. Physical Educators' Attitudes toward Teaching Individuals with Disabilities.

Physical education is "the development of physical and motor skills, fundamental motor skills, and patterns, skills in aquatics, dance and individual and group games and sport, including intramural and lifetime sports" (IDEA, 2004d; p. 1). Physical educators are essential to the educational process of all students in that they play a major role in teaching the necessary motor skills, movement concepts, and health-related fitness while empowering students to utilize physical activity for life-long health and wellness. Physical education teacher education (PETE) programs are tasked to prepare qualified professionals to teach physical education to children of all developmental levels, including those students with disabilities (Piletic & Davis, 2010).

The Individuals with Disabilities Education Act (2004d) mandates that students with disabilities receive a free appropriate public education (FAPE). In addition, they must have access to, be involved in, and progress in the general curriculum; this includes equal access and services in physical education in the least restrictive environment (LRE) (IDEA, 2004; U.S. Department of Education, 2017). Currently, over 7.3 million or 14% of all public-school students (ages 3-21) receive services under the IDEA (NCES, 2021). The majority of these students spend over 80% of their school day in the general classroom, including physical education (U.S. Department of Education, 2017). Therefore, it is essential to understand how physical education can be taught to all students, with and without disabilities, to ensure an effective and inclusive general physical education (GenPE) setting.

Adapted physical education (APE) is often misunderstood, primarily stemming from the misinterpretation of LRE. Physical education is a direct service in special education provided to those with qualifying disabilities and is delivered in a variety of settings including a) the GenPE setting; b) GenPE with APE consultation; c) APE with direct service in GenPE; d) Unified PE;

and e) self-contained APE. Due to the various types of educational settings, APE can be defined as any physical education that meets the student's distinctive needs (Lieberman et al., 2004; Winnick & Porretta, 2016). Therefore, physical educators need to be prepared with competency and intention to teach to a diverse population of students, including students with disabilities, by creating inclusive GenPE learning environments.

Unfortunately, while the diversity of abilities has increased in GenPE, as well as the established need for inclusionary instructional approaches, most PETE programs only provide one course devoted to APE. A study conducted on PETE programs by Piletic and Davis (2010) found 69% of undergraduate PETE programs offer one semester-long course dedicated to APE, in which a majority of the content knowledge taught consisted of disability characteristics. Hetland and Strand (2010) explored PETE programs' curricula and found 54.5% of APE to be offered as one separately focused course. GenPE teachers have frequently reported programming for students with disabilities is an area of need (Collier & Hebert, 2004); educators often feel inadequately prepared to teach students with disabilities in inclusive settings partly due to minimal or no training in their PETE programs (Combs et al., 2010; Piletic & Davis, 2010). Consequently, preservice physical educators often experience negative attitudes toward teaching students with disabilities due to a lack of preparation, confidence, and experience (Duchane et al., 2008; Folsom-Meek et al., 1995; Hodge, 1998; Hodge & Elliott, 2013; Rizzo & Vispoel, 1992).

Given the number of students with disabilities in GenPE and the current attitudes of professionals, it seems necessary for PETE programs to make improvements to their introductory APE course curriculum to provide the necessary resources and training for preservice physical educators. Additionally, it would benefit PETE programs to reevaluate how inclusion is

discussed, implemented, and valued within the curriculum (Combs et al., 2010). For inclusion in GenPE to be successful, preservice physical educators need positive dispositions and behavioral intentions toward teaching students with disabilities while feeling confident and prepared by PETE programs to create learning environments conducive to all students' success. The purpose of this study was to investigate the attitudes of preservice physical educators toward teaching students with disabilities in an effort to understand their beliefs toward inclusion and explain how a practicum in an introductory APE course impacts the self-efficacy of preservice physical educators toward teaching a diverse student population.

Brief Literature Review

Chapter two provides an overview of attitudinal research and the use of practicums as an educational tool in introductory APE courses. Recent research has provided more evidence on preservice physical educators' attitudes toward teaching students with disabilities and how practicum experience during introductory APE courses contributes to the development of perceived self-efficacy. The following research shows the connections between attitudes and self-efficacy toward teaching students with disabilities, practicums, and introductory APE courses.

Previous research indicated that positive attitudes toward a behavior increase the likelihood that an individual will perform the specific behavior with intention. In studies conducted with preservice physical educators enrolled in an APE course with a required practicum, researchers found significant positive changes in attitudes toward teaching students with disabilities through increased personal growth, empathy, patience, and self-confidence (Lee et al., 2020; Santiago et al., 2020; Wilson & Richards, 2019). Additionally, APE courses with hands-on learning (i.e., practicums) significantly impacted students' perceptions of preparedness

and comfort toward teaching students with disabilities (Dillon et al., 2020; Sofo et al., 2016; Wilson & Richards, 2019). The development of these feelings, specifically within the practicum experience, led to the perception of competency and self-efficacy in future physical educators. Notably, an experimental study conducted by Lee et al. (2020) explored the relationship between hands-on learning (i.e., service-learning practicum) and preservice physical educators' attitudes toward teaching students with disabilities. The study's significant findings established that the practicum incurred by students in the experimental group during the APE course was essential to changing their attitudes toward teaching students with disabilities by increasing their self-efficacy (Lee et al., 2020). Self-efficacy, how one thinks, feels, or believes in their ability to achieve a particular behavior or level of performance, could be developed through personal growth and perceived competence toward a behavior during experiential learning opportunities.

While practicums can offer opportunities for attitudinal change and improved self-efficacy toward teaching students with disabilities, the journey requires a purposeful implementation to engage the preservice physical educator in a guided learning experience. Purposeful practicums have been found to have a positive effect on participants' applied learning by "bridging the gap between theory and practice" (Santiago et al., 2020, p. 196). Further, research indicated preservice physical educators felt that feedback received during their practicum experience from peers, cooperating teachers, paraprofessionals, and professors contributed to their perceived levels of competence in their development of inclusive pedagogy (e.g., differentiated instruction) and application of content knowledge (Wilson & Richards, 2019). Additionally, well-planned practicums in APE courses are thought to positively affect students' perception of preparedness, advocacy toward students with disabilities, and affirmation in the chosen career path (Santiago et al., 2020; Wilson & Richards, 2019). Establishing a well-

planned experience for preservice physical educators to apply content knowledge gained from an APE course into a real-time practical setting, when combined with appropriate feedback and self-reflection, provides an opportunity for increased self-efficacy toward teaching students with disabilities.

Even though several studies have found positive effects of an APE course with a practicum on preparedness and competence toward teaching students with disabilities, not all inquiries found practicums to have a lasting impact on preservice physical educators' attitudes toward teaching students with disabilities. One such study found significant fluctuation between the APE course and student teaching regarding positive attitudes toward teaching students with disabilities (Dillon et al., 2020). Conclusively, preservice students felt a disconnect between the preparation in their PETE programs and the real-world context of student teaching when it came to instructing students with disabilities, resulting in feelings of self-doubt and frustration (Dillon et al., 2020). Additional studies found a negative effect on preservice physical educators' attitudes and beliefs towards teaching students with disabilities in an inclusive setting due to the social environment and marginalization of APE in schools. In a descriptive case study of graduate-level adapted physical education teacher education (APETE) students, Wilson and Richards (2019) found that the students had to endure social environments that undervalued APE students' role in the educational system. Similarly, an inquiry conducted by Dillon et al. (2020) of undergrad PETE students enrolled in an APE course discovered that while students felt feelings of preparedness and competence during the APE course and practicum, the feelings shifted during student teaching due to contradictions between the PETE program content (e.g., inclusive pedagogy) and cooperating teachers' beliefs and practices.

While suggestions for improving practicums in an undergraduate APE course are prevalent, overall findings are that such experiences are a vital component to changing intentions toward teaching students with disabilities while increasing the perceptions of self-efficacy. As physical educators' attitudes and self-efficacy toward teaching students with disabilities improve with hands-on experience, they are more likely to implement valid inclusive instructional approaches and learning opportunities for children of all abilities in physical education.

Theoretical Framework

Attitudinal studies toward teaching students with disabilities have been examined through various lenses over the past few decades. Moreover, Tripp and Sherrill (1991) established that attitudinal research in APE must be bound to a theoretical framework. Therefore, the author of this study utilized the following three theoretical frameworks in a hybrid format. First, the study explored attitudes, beliefs, and intentions toward teaching students with disabilities within Ajzen's (1991) theory of planned behavior. Second, the effects practicums have on developing perceived competence and preparedness were viewed through the lens of Bandura's (1977) self-efficacy theory. Finally, Kolb's (1984) experiential learning theory provided the framework for implementing an embedded practicum during the APE course. Together these theoretical frameworks addressed the purpose and significance of the research in this study.

Theory of Planned Behavior

The theory of planned behavior (TPB) (Ajzen, 1991) is an instrumental framework for exploring the relationship between attitudes and behavior and was designed to explain human behavior in explicit situations. The original theory, the theory of reasoned action (TRA) (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), made clear that behavioral intention is based on two factors, behavioral belief (i.e., an individual's attitude toward enacting a behavior) and normative

beliefs (i.e., an individual's subjective norm about conducting a behavior) (Madden et al., 1992). As in the original theory, Ajzen (1991) indicated the focus of TPB is on an individual's intention to perform a behavior.

Intentions are assumed to capture the motivational factors that influence a behavior; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior. (p. 181)

TPB extends the TRA model to posit that intention is based on three factors, a) attitude (positive or negative disposition) toward a specific behavior, b) subjective norms (social pressure to perform a behavior), and c) perceived behavioral-control (ease or difficulty of executing a behavior) (Theodorakis et al., 1995). The additional variable (i.e., perceived behavioral- control) within TPB allows for the inclusion of beliefs regarding the acquisition of resources and opportunities to impact one's perceived behavioral-control over a specific behavior (Madden et al., 1992). Therefore, intentions to perform a specific behavior can accurately be predicted through one's attitudes, subjective norms, and perceived behavioral control; moreover, intentions combined with perceived behavioral control account for the variance in actual behavior (Ajzen, 1991).

Self-Efficacy Theory

Self-efficacy theory was developed by Albert Bandura in 1977 and asserted that psychological procedures could alter the level and strength of self-efficacy. Perceived self-efficacy is defined as people's beliefs about their abilities to master various levels of performance that influence events, tasks, and behaviors in their lives. Self-efficacy determines how people think, behave, feel, and motivate themselves; individuals with a high perceived sense of self-

efficacy tackle demanding situations, set challenging goals, and develop deep intrinsic motivation for their responsibilities (Bandura, 1994).

Four sources are utilized to build self-efficacy, including performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal (Bandura, 1977). Each source can be introduced through several methods. Performance accomplishments are based on personal expectations to master a behavior or task. Failures lower one's level of belief to master a behavior; however, repeated success increases efficacy. When perceived mastery is established, efficacy can be transferred or generalized into other situations, tasks, or behavior.

Self-efficacy can also be developed during vicarious experiences, though not as effective when compared to performance accomplishments. Through observation, individuals feel an ability to improve their efficacy by seeing others perform a behavior, activity, or task without negative consequences (Bandura, 1977). Modeling provides more than just a social standard by which one can compare abilities. Moreover, proficient models serve as compasses to guide others in achieving the competencies they wish to possess.

Verbal persuasion is another source to strengthen and build the perception of competence and is widely utilized due to ease and availability. Individuals who are verbally persuaded often believe they can overcome barriers to be successful in various tasks through encouragement and motivation to develop necessary skills and the perception of self-efficacy. However, as with vicarious experience, this source's value is weaker in establishing efficacy than performance accomplishments due to a lack of authentic experiences.

Finally, the fourth way to improve an individuals' self-belief of efficacy is through emotional arousal. Stressful situations typically elicit emotions, which may have "informative value concerning personal competency" (Bandura, 1977, p. 198). Nevertheless, anxiety arousal,

caused by fear-provoking thoughts, can be quieted through modeling (i.e., vicarious experience) and mastery (i.e., performance accomplishments) of behavior and tasks.

Experiential Learning Theory

The experiential learning theory (ELT) suggests that knowledge is created through transformational events. David Kolb (1984) drew on the learning models of Kurt Lewin, John Dewey, and Jean Piaget to develop ELT not as an additional model to cognitive or behavioral learning theories but as a combination of the two types of theories. Through ELT, learning is defined as "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combinations of grasping and transforming experience" (Kolb, 1984, p. 41). ELT is comprised of six schemes, 1) learning is a process, not an outcome, 2) all learning is relearning, 3) learning necessitates resolving the conflict between modes of adapting to the world, 4) learning involves the functioning of the total person (i.e., thinking, feeling, perceiving and behaving), 5) learning results from transactions between the person and the environment, and 6) learning is the process of creating knowledge (Kolb & Kolb, 2012). The appropriate utilization of experiential learning can increase an individual's ability to apply content knowledge to real-world situations while improving performance and self-confidence.

Kolb (1984) proclaimed, "new knowledge, skill or attitudes are achieved through confrontation among four modes of experiential learning" (p. 30). The four modes included 1) concrete abilities (CE), in which the learner involves themselves fully, openly, and without bias in new experiences, 2) reflective observation abilities (RO), which include the ability to reflect on and observe experiences from many perspectives, 3) abstract conceptualization (AC), the ability to create concepts that integrate observations into sound theory, and 4) active experimentation (AE), the ability to utilize theories for decision-making and problem-solving

(Kolb, 1984). Furthermore, Kolb and Kolb (2012) describe the concept as a cycle where the learner "touches all the bases – experiencing, reflecting, thinking and acting" (p. 194).

By utilizing all of the ELT concepts, a deeper connection to knowledge and how to apply course content to practical situations can occur through meaningful engagement, building problem-solving and decision-making skills, and developing relationships. Experiential learning in higher education can be strengthened by creating learning spaces that include transformative experiences for the learner (Kolb & Kolb, 2012).

Statement of Problem

Several issues of significance guided this study, including a) negative attitudes of physical educators toward teaching students with disabilities, b) the effectiveness of the separate-course APE model at preparing physical educators for inclusion, and c) discrepancies toward the best way to implement practicum experience to benefit preservice physical educators' self-efficacy toward inclusion. Authors Fraenkel et al. (2019) argued that the rationale for exploring problems in education is to "make a clear and persuasive case for the importance of a study" (p. 33). This study contributed to the literature by investigating these problems.

First, the initial problematic situation that led to this study was that physical educators have been found to have negative attitudes toward teaching students with disabilities in inclusive learning environments, often leading to exclusionary instructional approaches. Existing studies concluded that physical educators' negative attitudes toward teaching students with disabilities result from a lack of time, resources, preparation, and support, all of which affect their intentions to create inclusive learning environments for students of all abilities (Croll & Moses, 2000; Kennedy & Yun, 2019; Lieberman & Grenier, 2019). Attitudinal research on preservice physical

educators' attitudes toward teaching students with disabilities provided foundational knowledge on the intention toward teaching to diverse populations in inclusive learning environments.

The second problem this study investigated was whether a single semester-long introductory APE course can provide future physical educators with the quality training and preparation needed to feel competent toward teaching students with disabilities in inclusive GenPE settings. Findings in research indicated that physical educators perceive a lack of preparation as the cause of negative attitudes and intentions toward teaching students with disabilities in inclusive classrooms (Kennedy & Yun, 2019; Lieberman & Grenier, 2019). Nevertheless, given that most PETE programs devote only this one course toward APE, exploring preservice physical educators' perceptions of how the course has prepared them to teach students with disabilities while also investigating what components of the course were most effective in increasing their perceived self-efficacy, would be of value.

Finally, this study focused on how practicums should be implemented into introductory APE courses and what effects they had on preservice physical educators' attitudes and perceived self-efficacy toward teaching students with disabilities. Several recent inquiries on practicums' effectiveness on attitudes toward teaching students with special needs have emerged, and findings indicate there are positive correlations between practicums and perceived competence and preparedness (Santiago et al., 2020; Sofo et al., 2016). Nevertheless, research on practicums in APE has also acknowledged discrepancies as to the best method for how PETE programs should implement hands-on experiences to influence positive change in attitude and perceived self-efficacy toward teaching students with disabilities (Sofo et al., 2016; Taliaferro & Bulger, 2020; Wilson & Richards, 2019). A theory-based, hands-on practicum experience in an undergrad APE course sets the foundation for preservice physical educators to develop and

promote inclusive physical education (An & Decker, 2019). Moreover, while PETE programs strive to offer substantial educational experiences for future teachers, this research provided a rationale for the importance of exploring how knowledge and experiences are delivered in APE across the PETE curriculum. Further development of opportunities is needed to prepare physical educators with the attitudes and self-efficacy to teach students with disabilities in inclusive learning environments.

Purpose of the Study

The purpose of this study was to provide a comprehensive evaluation of how an introductory APE course with an embedded practicum in a modified high school physical education class impacted preservice physical educators' attitudes toward teaching students with disabilities and perceived self-efficacy toward inclusion. The study results may support embedding a hands-on practicum through community partnerships into introductory APE courses and throughout the PETE curriculum to embrace inclusive learning environments.

The current study built on previous research by adding primarily qualitative data to the quantitative-dominant inquiry of preservice physical educators' attitudes toward teaching students with disabilities and how practicums impact perceived self-efficacy toward the inclusion of students with disabilities in the GenPE setting. The overarching probe investigated what role PETE programs have in preparing future physical educators to assume the responsibility of creating inclusive GenPE classrooms.

The philosophical underpinning of the study was pragmatism. The ontology of the pragmatist paradigm is that reality is always in debate and interpreted through new lenses within ever-changing situations. How one knows this reality is through the epistemological perspective of finding the most favorable method to solve problems and promote change (Patel, 2015).

This study investigated the previously listed concepts by employing a mixed-methods methodology. Mixed-methods allow for quantitative and qualitative methods to blend as long as both methodologies are valued within the research. Briggs et al. (2012) noted that mixed-methods research design has two components: time orientation and paradigm emphasis. Time orientation illustrates when the researcher uses various quantitative or qualitative methods. The time orientation for this study was sequential as one method followed the other. The second component of the mixed-methods research design was the paradigm emphasis. Paradigm emphasis showed the association between quantitative and qualitative methods and epistemological assumptions.

The following research had an explanatory, qualitative-dominant, sequential design (i.e., quan → QUAL). The researcher conducted a quantitative survey with preservice physical educators at the beginning of an introductory APE course and again at the end of the practicum. Qualitative data were collected at the end of the semester, including reflective journals, summary of experience reports, and a focus group interview. The following research question guided this study while the additional sub-questions served to answer the research question:

- RQ: What effect does an embedded practicum in a modified physical education class have on the attitudes and perceived self-efficacy of preservice physical educators toward teaching students with disabilities in an inclusive GenPE setting?
 - SRQ1: What are the attitudes and perceived competence of a preservice physical educator enrolled in an introductory APE course toward teaching students with disabilities before and after a practicum experience?

- SRQ2: What influence did the introductory APE course and practicum have on preservice physical educators' attitudes and perceived competence to teach students with disabilities?
- SRQ3: What components of the introductory APE course and practicum best prepared the preservice physical educator for teaching students with disabilities?
- SRQ4: How did the preservice physical educators view the practicum experience as relevant to their personal and professional development?

Definition of Variables

The following terminology is used to describe information and serve to identify concepts significant to the current study.

- *Attitudes*: Cognitive (i.e., beliefs) and affective (i.e., feelings) attitudes are theoretically influenced by behavioral beliefs (Ajzen, 1991). "Attitudes develop reasonably from the beliefs people hold about the object of the attitude...(i.e., with other objects, characteristics, or events)" (Ajzen, 1991, p. 191).
- *Embedded Practicum*: Merriam-Webster (n.d.) defines practicum as an educational course for the preparation of teachers that includes practical application of previously attained content knowledge and theory. Embedded practicums are field placements designed to expose students simultaneously to job-like experiences and course content knowledge (Chandler et al., 2013).
- *Inclusion*: "Inclusion means all students belong in the community of learners. This community should invite all students to participate in meaningful learning that offers opportunities for personal success. An inclusive environment will make certain that both

curriculum modifications (what is taught) and instructional modifications (how the material is taught) are planned for" (Combs et al., 2010, p. 124).

- *Introductory Adapted Physical Education (APE) Course*: An undergraduate course predominantly required for PETE majors but also include kinesiology (i.e., exercise science, athletic training, coaching) majors focused on content knowledge (i.e., disabilities, instructional and motivation strategies, motor skill development, fitness, modifications) and application of skills (i.e., practicums) in adapted physical education settings (Piletic & Davis, 2010).
- *Modified Physical Education*: A small inclusive class of approximately 10-20 students with and without disabilities; also referenced as peer or buddy physical education or unified physical education (Lieberman et al., 2017).
- *Physical Education Teacher Education (PETE)*: Physical Education Teacher Education (PETE) programs “prepare qualified professionals with the ability to teach students with and without disabilities in physical education” (Piletic & Davis, 2010, p.31).
- *Perceived Competence*: Awareness of an individual’s knowledge, teaching skills, and professional confidence in a specific area of interest (i.e., teaching students with disabilities) (Hatlevik, 2017).
- *Perceived Preparedness*: Self-efficacy; "a judgment of one's capacity (i.e., preparedness) to accomplish a certain level of performance" (Bandura, 1986, p. 391).

Scope, Assumptions, Limitations, and Delimitations of the Study

Scope

This study's scope focused on undergraduate physical education majors (n = 19) in a separate semester-long introductory APE course at a Midwestern university in the Fall 2021

semester. During the 16-week APE course, students participated in a 13-week embedded practicum located at a local high school. Content knowledge for the course was conducted online for the course duration. The participants completed the Physical Educators' Attitudes toward Teaching Individuals with Disabilities (PEATID-III) (Rizzo, 1993) survey prior to beginning the practicum experience. Upon completion of the practicum hours, the same survey was issued as a post-test to measure the participants' attitudes and perceived competence toward teaching students with disabilities. Data collection for the qualitative phase included reflective journals, a summary of experience report, and a semi-structured focus group interview with participants to offer an in-depth understanding of the preservice physical educators' perceptions toward teaching students with disabilities and to explore the impact of the course and the practicum experience on attitudes toward teaching students with disabilities and perceived self-efficacy toward inclusion.

Assumptions

- The researcher assumed that the participating preservice physical educators were honest in reporting their attitude and perceptions of competence toward teaching students with disabilities and self-efficacy toward inclusion.
- The criteria for the practicum assumed all participants experienced the same or similar phenomenon within the study.

Limitations

- Participants' journal reflections were collected as part of the qualitative data and included self-reporting. Self-reporting can be a source of bias and becomes a limitation when they contradict other forms of data. These biases could include: a) selective memory, b) telescoping, c) attribution, and d) exaggeration (Brutus et al., 2012).

- While the practicum location received a level of guidance before the start of the experience, limitations to the study included a lack of process control at the practicum site concerning varying levels of a) hours of direct contact to teach students with disabilities, b) behaviors (i.e., passive versus active involvement) of the participants and c) supervision (Hodge, 1994).
- Given the researcher was also the course instructor; students potentially were more willing to participate in the study due to the power imbalance. Additionally, students potentially provided answers they assumed the instructor wanted to hear in the interview, reflective journals, and summary of experience reports.
- The researcher's biases, values, and experiences were a limitation of this study.
- Given the setting of the practicum, a Unified (i.e., modified) physical education class at a local high school, the sample of participants was limited to individuals with a schedule that accommodated a 10:55-11:40 a.m. class time.
- COVID-19 protocol for safety at the local high school limited some participants' ability to get 13-weeks of practicum time due to quarantine requirements for close contact exposure and positive cases.

Delimitations

- The study was delimited to undergraduate physical education students, of typical undergraduate age, enrolled in an introductory adapted physical education course in a Midwestern university. Therefore, the generalizability of the results was limited.
- The participants were not randomly selected since they were part of an intact course. The study used a purposive sample; the researcher chose the sample based on prior

information and felt the sample would provide the data needed for the study (Fraenkel et al., 2019).

- The final size of the sample (n=9) was not a representative distribution of the population. Therefore, the results were not generalizable.
- The current study did not examine the effect gender had on attitudes toward teaching students with disabilities, albeit several studies indicated that females typically have more positive attitudes toward individuals with disabilities (Folsom-Meek et al., 1999; Rizzo & Vispoel, 1991).
- The current study did not explore what role race had on preservice physical educators' attitudes, perceived competence, or perceived preparedness toward teaching students with disabilities since most of the participants were White.

Significance of the Study

"The problems facing disabled people cannot be resolved until attitudes are changed, and a truly inclusive conception of humanity is institutionalized" (Oliver, 1996, p. 194). Multiple studies have explored GenPE teachers' negative attitudes and beliefs of teaching in inclusive learning environments. However, few academic contributions exist on the perceptions of teachers who exhibit positive attitudes toward teaching students with disabilities and what led to welcoming inclusive instructional approaches into their GenPE classes. Within studies that do exist, several teachers contributed those feelings to focusing their programs on an array of objectives across the learning domains, preparing lesson plans with multiple teaching strategies, and completing training in APE undergraduate courses (Combs et al., 2010; Grenier, 2006; Hodge et al., 2004a; van Munster et al., 2019). Teachers who addressed the psychomotor domain of motor skill performance while strengthening the affective domain in GenPE provided social

benefits for students with and without disabilities (Combs et al., 2010; Hodge et al., 2004a). By focusing on social and emotional learning within an inclusive GenPE setting, all children can feel a sense of belonging. Also, teachers with positive perceptions of inclusion in GenPE created written, detailed lesson plans with multiple teaching strategies comprised of accommodations, modifications, and differentiated instructional approaches (Combs et al., 2010; van Munster et al., 2019). As more students with disabilities receive APE services in GenPE classrooms, there are growing demands associated with how inclusion is implemented, including a) factors that contributed to physical educators' intentions of teaching students with disabilities in GenPE; b) what training and resources PETE programs provided preservice physical educators on inclusion, and c) the increased need for self-efficacy (i.e., perceived competence) toward inclusion practices.

Typically, most undergraduate students who completed a PETE program enrolled in only one semester of an introductory course in APE. Several studies indicated the categorical approach to the course content versus practical experience as causation for the lack of preparedness and negative attitudes toward teaching students with disabilities by GenPE teachers (Grenier, 2006; Lieberman & Grenier, 2019; Piletic & Davis, 2010). The result of these negative attitudes has led to GenPE teachers practicing exclusionary instructional approaches, which often have students with disabilities participating in alternate activities alone or with a paraprofessional, or keeping score for their non-disabled peers. In a study on physical educators' preparedness for inclusion in GenPE, Hardin (2005) proclaimed, "no matter how valuable, one special education class or adapted physical education class is not sufficient" (p. 54). GenPE teachers' feelings of self-efficacy to adapt instructional approaches to be inclusive should be

influenced by teacher preparation programs' efforts to implement inclusive pedagogy and practicum experiences throughout the curriculum.

How PETE programs prepare future physical educators' for teaching students with disabilities in an inclusive GenPE learning environment has been a contested topic within literature and included demands to reevaluate and restructure programming to meet future professionals' needs (Hardin, 2005). Whatsmore, Piletic and Davis (2010) declared that due to only focusing on APE needs in a separate course, there is a lack of time to focus on additional requirements for teaching students with special needs.

Students of PETE preparation will be faced not only with teaching students with disabilities in the general physical education class, but more and more they will be faced with legal procedures (i.e., IEP, assessments, student progress, intake, progress reporting, and review meetings) while working with students with disabilities. (p. 31)

Moreover, preservice physical educators expressed hands-on experience teaching students with disabilities during their practicum as a way to improve competency and confidence in inclusive practices (Hardin, 2005; Hodge & Elliott, 2013). Hands-on work with diverse populations is impertinent early on in PETE preparation programs and during student teaching to best prepare preservice physical educators for inclusion.

It is central to explore preservice physical educators' attitudes and beliefs toward teaching students with disabilities, PETE programs' methods of preparation for future physical educators to engage in inclusive instructional strategies, and how embedded practicum experiences impact the perception of self-efficacy toward teaching students with disabilities in an inclusive GenPE learning environment. The breadth of this study can generate concepts for designing improved curriculum within PETE programs by developing physical educators who create evidence-based

inclusive learning environments for students of all abilities. Focus areas for change could include implementing embedded practicums for teaching students with disabilities early-on in the PETE program curriculum and during student teaching and by rethinking how to create inclusive GenPE classrooms that are welcoming and uplifting to all students.

Conclusion

Students with disabilities will always be part of the GenPE setting. There are growing demands for undergraduate PETE programs to include and infuse practical instructional approaches for teaching students with disabilities throughout the curriculum to generate teachers with positive attitudes, competency, and preparedness toward inclusion. It is critical to understand the perceptions of inclusion by preservice physical educators, the curriculum and training PETE programs provide, and how best to implement inclusion into PETE programs to further understand support these demands.

Previous studies focused on the absence of integrating teaching students with disabilities in all PETE preparation program course offerings. As stated by Hardin (2005), "the topic of teaching students with disabilities was virtually ignored except in the participant's adapted physical education course" (p. 52). PETE programs must examine proactive proposals of change. There are multiple studies conducted on the negative attitudes toward teaching students with disabilities. These studies conclude time, resources, motivation, priority, class size, and level of disability as excuses for why GenPE teachers cannot effectively create inclusive classrooms (Bredahl, 2013; Combs et al., 2010; Hodge et al., 2004b). By investigating how experiences, training, and preparation can affect preservice physical educators' confidence and competency in teaching students with disabilities, researchers can focus on developing a practical framework for including students of all abilities in the GenPE setting. "Many things must change, but teacher

educators must work for the day when all teachers will meet Sherrill's [1998] longstanding call that all physical education become adapted" (Folsom-Meek & Rizzo, 2002, p. 150). This study attempted to provide further knowledge to contribute to the development of PETE programming designed to empower GenPE teachers in providing a quality inclusive physical education for students of all abilities.

Chapter 2. Literature Review

Existing literature provided a wealth of knowledge within attitudinal research in adapted physical education (APE) and how general physical education (GenPE) in-service and preservice physical educators experience teaching students with special needs. A number of studies have been conducted on the impact practicums have on preservice students' perceptions of teaching students with disabilities. However, inconsistencies exist in how physical education teacher education (PETE) programs should implement effective practicums in introductory APE courses to create transformative experiences for preservice physical educators. Further knowledge of developing purposeful practicums in APE could lead to physical educators' increased self-efficacy toward the inclusion of diverse student populations in the GenPE setting. The purpose of this review of literature was two-fold: 1) to take readers through the historical context of inclusion, attitudinal research, and how APE is structured within PETE programs, and 2) to identify recent empirical research devoted to the influence of purposeful practicums on preservice physical educators' perceptions of self-efficacy in APE.

To begin the review, a historical overview of the Individuals with Disabilities Education Act (IDEA) provided context for the significance of inclusion. It included explanations of the least restrictive environment (LRE) and free and appropriate public education (FAPE), and placement options for APE services. Additionally, the definition of inclusion offered clarification for the term and includes the benefits of effective inclusionary practices in the GenPE learning environment. Further, the section also contained barriers of inclusion from the perceptions of teachers and students.

Second, this chapter covered significant studies on attitudinal research from the perspectives of in-service GenPE teachers and preservice physical educators toward teaching

students with disabilities. The literature examined both the widely used quantitative research approach as well as qualitative and mixed-methods studies. Additionally, this section identified various instruments used to measure attitudes, including the physical educators' attitudes toward teaching individuals with disabilities survey (PEATID-III) (Rizzo, 1993), attitudes toward disabled persons scale (ATDP) (Yuker et al., 1960), and a variety of qualitative methods.

Finally, a section on APE in PETE programs defined components of high and low-quality APE courses, reviewed pedagogical dissonance and resilience, and offered suggestions for infusing inclusive pedagogy into PETE programming. Additionally, this section utilized recent empirical research to discuss the value of quality practicums as an influence on preservice teachers' self-efficacy, preparedness, and competence toward teaching students with special needs.

Strategies for Searching Literature

This literature review was conducted using the online access to the Livingston Lord Library at Minnesota State University Moorhead and The Minnesota Program for Automated Library Systems (MnPALS). The online resources provided access to various sources, including Education Resource Information Center (ERIC), SAGE online journals, ProQuest, and the Elton Bryson Stephens Company (EBSCO). Additional resources were located with Google Scholar and Research Gate. The following terms were used: preservice physical educators, students with disabilities, attitudes, perceived preparedness, perceived competence, inclusion, physical education teacher education, practicum, field experience, adapted physical education, introductory adapted physical education, physical educators intentions toward teaching individuals with disabilities (PEATID-III), behavioral intentions, theory of reasoned action, experiential learning, service-learning, self-efficacy, disability, special education, and teacher

preparation. Additional sources were gathered from the reference sections of preceding research articles.

Individuals with Disabilities Education Act

The Individuals with Disabilities Education Act (IDEA), formally the Education for All Handicapped Children Act (Public Law 94-142), has undergone reauthorization several times. The significance and purpose of Public Law 94-142 is to make a free appropriate public education (FAPE) accessible to children with disabilities. It also assures those who qualify receive a special education and related services designed to meet their unique needs to prepare them for continued education, employment, independence, and recreation. Additionally, the role of IDEA is to ensure the rights of children with disabilities and their parents are met by a) providing educational services and early intervention services for all children, b) providing educators and parents with necessary tools to implement educational services, and c) assessing the effectiveness of the efforts put toward educating children with disabilities (IDEA, 2004d). The significance of establishing and continually reauthorizing Public Law 94-142 has meant that since excluding 1.8 million children with disabilities in 1975, the nation has grown to provide individualized special education and related services to 7.5 million students with special needs (IDEA, 2004d).

FAPE and LRE

Under IDEA (2004d), all children with qualifying disabilities are eligible to receive individualized special education and related services. These services must be provided as a free and appropriate public education (FAPE). Free signifies that the government pays for students with disabilities' education; there is no cost for families. The law defines appropriate by requiring all qualifying students to be provided with an Individualized Education Program (IEP) with

services to meet each students' unique strengths and needs. Under FAPE, special education and related services are public, meaning all components are supervised and directed by the public school. Finally, the education received by students with disabilities includes special education, including direct instruction services (e.g., physical education, reading, written language, mathematics) and related services (e.g., speech-language pathology, interpreting services, occupational therapy, counseling services, school health services, medical services, physical therapy).

As a direct service, physical education is defined as the “development of physical and motor fitness; fundamental motor skills and patterns; and skills in aquatics, dance, and individual and group games and sports (including intramural and lifetime sports). This includes special physical education, adapted physical education, movement education, and motor development” (Individuals with Disabilities Education Act [IDEA], 2004a). Further, according to Section 300.108, physical education must be made available to every child with a disability receiving FAPE and, if possible, in the regular (i.e., GenPE) physical education setting with non-disabled peers. If a child needs specially designed physical education, as noted in their IEP, the public agency is responsible for providing the child with the services directly or making arrangements for the services to be provided (Individuals with Disabilities Education Act [IDEA], 2004b). Placements for students with disabilities in physical education follow the guidelines for the least restrictive environment (LRE).

IDEA (2004c) defines LRE as requiring children with disabilities to be educated with their non-disabled peers in a general classroom setting to the maximum extent possible. Further, any special classes, schooling, or removal of students with disabilities from the regular educational setting should only occur if the severity of the disability “is such that education in

regular classes with the use of supplementary aids and services cannot be achieved satisfactorily” (Individuals with Disabilities Education Act [IDEA], 2004c). Because the learning environment and instructional strategies may differ for students with disabilities, LRE must be considered when selecting placement options for physical education.

Placement Options

Several placement options have been developed in physical education for students who qualify for APE services. Columna et al. (2010) offered a continuum of placement options, including a) GenPE with no support or modifications, b) GenPE with modifications, c) APE consult in GenPE, d) APE consult in GenPE combined with a segregated placement, e) segregated physical education several times per week or month in combinations with GenPE services, f) reverse mainstreaming – GenPE students go to segregated classes to assist APE students, g) segregated APE in school, and h) segregated APE outside of school. These placement options run the gamut of LRE choices for the APE service, and the correct placement can assist in a successful experience for the student.

Inclusion

Inclusion is not a placement; it is a “process that must be reflected on, analyzed and fine-tuned continuously” (Kurth et al., 2015, p. 271). Inclusion is defined as instructing students with and without disabilities in an integrated classroom setting with proper accommodations and supports (Block, 2016). IDEA (2004c) does not mandate schools to implement inclusion, but rather the law requires schools to place students with disabilities in the LRE to meet their unique needs. Further, IDEA (2004c) notes that school districts should offer a continuum of placements to accommodate diverse student needs.

In addition to art and music, physical education was one of the first educational settings that integrated students with disabilities into the general classroom (i.e., GenPE) alongside their peers without disabilities (Alquraini & Gut, 2012). An and Meaney (2015) provided further insight into how inclusion in physical education is defined by concluding,

Inclusive physical education is a learning environment for students with disabilities to develop motor skills, fitness, and knowledge of movement and to promote psychosocial well-being for a lifestyle appropriate to their abilities and interests with their age-appropriate peers with supplementary aids and support services as needed. (p. 144)

Benefits and Barriers of Inclusion

Research examining the perceptions of inclusion in physical education by GenPE teachers, APE specialists, and students offered several benefits of an inclusive learning environment, such as a) students without disabilities adopting more positive attitudes towards students with disabilities (Slininger et al., 2000; Vogler et al., 2000), b) improvement of students' social skills (Goodwin & Watkinson, 2000; Suomi et al., 2003), c) improvement of self-perception and personal development (Martin & Smith, 2002; Tapasak & Walther-Thomas, 1999), and d) students' receptiveness to accommodate unique abilities (Kalyvas & Reid, 2003).

Conversely, inclusion has held various negative impacts due to poor implementation (Lieberman et al., 2004). Poorly constructed inclusive learning environments in GenPE can a) impact students' active participation (Place & Hodge, 2001), b) affect the social experience of students with disabilities (Suomi et al., 2003), and c) result in negative interactions and exclusionary behaviors between students without disabilities and students with disabilities (Goodwin & Watkinson, 2000; Haegele & Sutherland, 2015). As students with disabilities join

general education settings at increasing rates, exclusionary learning environments directly impact their educational progress and quality of life (Wiebe Berry & Kim, 2008).

Teachers Perceptions of Inclusion

Recent studies have focused on the teachers' perspective of what is needed to create an inclusive learning environment (An & Meaney, 2015; Wilson et al., 2020). In a study on GenPE and APE teachers' attempts to develop inclusive learning environments in physical education, Wilson et al. (2020) noted the importance of collaboration and student-centered instructional strategies as approaches for successful inclusion. First, participants in the study shared the importance of working as a school community to support the unique needs of each student in the GenPE setting. This sentiment was mirrored in a Park and Curtner-Smith (2018) study in that a collaborative and supportive school culture can foster innovative teaching approaches, including implementing successful inclusive instructional strategies. Furthermore, in a phenomenological study on the inclusion practices of elementary GenPE teachers, An and Meaney (2015) discovered working in collaboration with APE teachers through sharing information (e.g., disability fact sheets, activity modifications, behavior management strategies), communicating with the IEP team, reviewing IEP documents, and seeking out additional supports increased the knowledge and understanding of the GenPE teachers toward teaching students with disabilities. An additional factor noted by recent studies on GenPE teachers' perspectives on implementing successful inclusive practices was the significance of student-centered teaching strategies. Several studies have rendered student learning outcomes and assessments as ways to move forward with inclusion in physical education by incorporating IEP goals and objectives within the lessons (An & Meaney, 2015; Wilson et al., 2020). Additionally, individualizing instruction based on students' unique needs creates the opportunity to demonstrate progress and IEP

effectiveness (Park & Curtner-Smith, 2018; Wilson et al., 2020). Finally, researchers concluded that a student-centered approach to inclusive practices in GenPE includes making modifications to equipment, tasks, instruction, and the environment to motivate, engage and offer practice opportunities for students of all abilities to find success in physical education (An & Meaney, 2015; Wilson et al., 2020).

Alternatively, poorly implemented inclusionary practices in physical education can lead to GenPE teachers' negative feelings toward teaching students with disabilities. Research revealed that despite knowledge of best practices for inclusion, GenPE teachers still face difficulties creating inclusive programming (Lieberman et al., 2017). This theme was also rendered from a Wilson et al. (2020) study as the authors described the feelings of GenPE teachers toward inclusion as, “we do the best we can” (p. 6). Additional research showed GenPE teachers often struggle with meeting the unique needs of all students due to large class sizes, lack of support staff, distracting environments, shortage of appropriate equipment, scheduling, and lack of time to devote to collaborative input with IEP teams (Lieberman et al., 2017; Wilson et al., 2020). Additionally, several authors have expressed concerns that educators may unintentionally exclude students with disabilities who are enrolled or “dumped” (Lavay & Depaepe, 1987) into integrated learning environments with unchanged instructional approaches, accommodations, or support (Haegele, 2019; Haegele & Zhu, 2017).

Attitudinal Research

Due to legislation (i.e., P.L. 94-142), the placement of students with disabilities in the LRE, and the implementation of inclusion across school districts, GenPE teachers have taken on new demands to teach to a diverse population. However, not all GenPE teachers have the necessary training, resources, experience, or confidence to teach students with disabilities

resulting in negative attitudes toward inclusion in GenPE. To address the inquiry of which factors contribute to GenPE teachers' attitudes toward teaching to the special needs population, Rizzo (1984) developed the Physical Educators Attitude toward Teaching the Handicapped (PEATH) survey. The twice revised PEATH, now the PEATID-III, is a commonly used tool for attitudinal research of in-service and preservice physical education teachers. The instrument was one of the first crafted for APE to include a theoretical framework; the tool uses the theory of reasoned action (Ajzen & Fishbein, 1980) to predict behavior. Theory-based attitudinal research can provide the foundation for education programs to support behavior change (Theodorakis et al., 1995). While multiple theories have been used to explore attitudes toward teaching students with disabilities, the theory of reasoned action (Ajzen & Fishbein, 1980) has been noted as one of the most commonly used among attitudinal researchers.

In-service Teacher Attitude Studies

Several studies have utilized the PEATID-III to explore physical educators' perceived attitudes and behaviors towards teaching students with disabilities in GenPE. Research has postulated several variables, such as educational training, experience, and perceived competence, as significant attributes that affect GenPE teachers' attitudes toward teaching students with disabilities.

By developing and utilizing the original instrument (i.e., PEATH), Rizzo (1984) explored 194 GenPE teachers' attitudes toward teaching students with disabilities. The instrument measured teachers' attitudes compared to two variables, types of disabilities and grade levels. Results indicated that teachers had more favorable attitudes towards teaching students with learning disabilities versus teaching students with physical disabilities. Further, teachers had

more favorable attitudes toward lower grade levels of students with disabilities; attitudes became less favorable as the grade levels advanced.

To further measure in-service GenPE teachers' attitudes towards teaching students with disabilities, Block and Rizzo (1995) compared 150 teachers attitudes against a variety of variables, such as a) teaching assignment, b) teaching level, c) quality of teaching experience, d) experience (i.e., years) teaching students with disabilities, e) prior APE coursework, f) prior special education coursework, and g) perceived competence in teaching students with disabilities. Results from the PEATID-III survey supported the need for quality teaching experiences, special education and APE coursework, and perceived competence, as each correlation produced favorable attitudes toward teaching students in the special needs community.

In a recent study using the PEATID-III, Yarimkaya and Rizzo (2020) explored many in-service GenPE teachers' attributes and their effect on attitudes toward teaching to a diverse population. The study looked at a) gender, b) age, c) professional experience, d) experience teaching students with disabilities, and e) disability type as factors that contribute to GenPE teachers' attitudes toward educating a diverse population. Results from the survey (n = 472) indicated that women had more favorable attitudes than men. Additionally, younger professionals who were recent graduates of PETE programs tended to have more positive attitudes. Finally, the teachers had a more positive attitude toward students with mild disabilities in the GenPE setting.

Attitudinal research of GenPE teachers' attitudes toward teaching students with special needs has also progressed into qualitative and mixed-methods research design. Ammah and Hodge (2005) conducted a descriptive study on high school GenPE teachers (n = 2) to explore

the beliefs and practices toward the inclusion of students with severe disabilities in the GenPE setting. Results from the study detailed the teachers' desire to be adequately prepared by PETE programs with APE coursework. Furthermore, exposure to students with disabilities, being equipped with modifications and accommodations to enhance self-confidence, and having inclusive practices supported by the school community contributed to the GenPE teachers' beliefs toward inclusion. In addition, a mixed-methods study by Combs et al. (2010) utilized quantitative and qualitative data to examine GenPE teachers' attitudes toward inclusion. The PEATID-III (Rizzo, 1993) survey was used to identify participants for the qualitative phase of the study. The survey yielded two participants with positive and two participants with negative attitudes toward teaching students with disabilities for in-depth interviews on how their attitudes were developed. Findings from the participants with an optimistic viewpoint on inclusion included focusing on student-centered teaching practices (e.g., objectives, differentiated instruction, modifications for unique needs) and a desire to see every student succeed in their GenPE classes. Additionally, the study asserted GenPE teachers with favorable attitudes towards students with disabilities had completed coursework and training in their PETE programs. Conversely, teachers with negative attitudes had not taken any APE courses in their teacher preparation programs.

Overall, both quantitative and qualitative research approaches have shown various variables that might account for a favorable change in GenPE teachers' attitudes toward teaching students with disabilities. APE coursework in PETE programs, type of disability, and perceived competence have all been echoing variables that significantly correlate to favorable attitudes toward teaching students with special needs. Notwithstanding, contact and experience teaching students with disabilities proved to be an additional factor in changing attitudes. However,

Yarimkaya and Rizzo (2020) suggested that the challenge with this particular variable is in research measuring the quantity and not necessarily the quality of the experiences. Therefore, the authors suggested advancing the literature by utilizing a mixed-methods study to assess the relationship between GenPE teachers' quality of experiences and perceived competence and preparedness toward teaching students with disabilities.

Preservice Teacher Attitude Studies

While numerous studies on in-service teachers employed the usage of the PEATID-III, alternately, several researchers in the field have specifically utilized the survey to explore the effects of a variety of attributes (i.e., variables) on preservice physical educators' attitudes towards teaching students with disabilities. Rizzo and Visopel (1992) offered one of the earliest studies investigating the impact of coursework on preservice physical educators' attitudes toward teaching students with disabilities. The study employed two different styles of courses, one which was geared toward APE and the other as a physical education course designed for children. The PEATH-II (name of PEATID-III before revisions) was given as a pre- and post-test survey to determine changes in the students' attitudes. Results showed a significant change for the students in the APE course in favor of teaching students with disabilities compared to the students in the physical education for children course. The results suggested that coursework design in PETE programs could significantly impact preservice physical educators' attitudes toward teaching students with disabilities.

Another early study by Folsom et al. (1995) surveyed 1,081 undergrad physical education students currently enrolled in an APE course across 30 different colleges and universities in the United States (U.S.). The study aimed to explore the relationship between various attributes and general attitudes toward teaching students with mild disabilities. The PEATID-III (Rizzo, 1993)

was utilized as the survey tool and was modified for preservice teachers for this study (PEATID-III Preservice Revision [P.S.]). The study showed significant reliability, consistent with other research using the same instrument, with a coefficient alpha of 0.88 (Folsom et al., 1995).

Results from the study showed significant predictors of positive attitudes towards teaching students with disabilities, a) perceived competence derived from coursework and other variables such as prior experiences with the special needs population, b) educational preparation, including APE courses and other courses (e.g., special education courses, physical education with infused inclusion pedagogy, psychology), and c) field experience as a requirement for the APE course.

In a similar research design, Hodge and Jansma (2000) explored the attitudes of preservice physical educators toward teaching students with disabilities by also employing the PEATID-III (Rizzo, 1993) survey. This study consisted of 704 physical education majors and others enrolled in an introductory APE course from 40 colleges and universities in 21 states across the U.S. The independent variables (i.e., attributes) in this study differed from the Folsom-Meek et al. (1995) study. They included gender, ethnic status, coursework preparation, academic major, experience teaching the special needs population, and perceived comfort level. Significant findings from the data show that females from the study displayed higher scores for favorable attitudes than males. Additionally, the participants with previous experience teaching students with disabilities also exhibited higher attitude scores than those without any such experience. Furthermore, females with experience showed higher attitude scores than males and females with no experience and males with experience teaching students with disabilities. Further, noteworthy data showed that coursework in PETE programs significantly contributed to the participants' perceived comfort levels.

Moreover, additional research into PETE programs' introductory APE courses explored the relationship between practicum experience and attitudes toward teaching students with disabilities. In a study of 2,942 undergraduates focused on academic major, gender, and hands-on experience, Folsom-Meet et al. (1999), employed the PEATID-III P.S. and concluded that hands-on experience was critical to a favorable attitude of preservice physical educators toward teaching students with disabilities. These findings resulted in the suggestion to further implement practicum experience in introductory APE courses within PETE programming.

While the PEATID-III (Rizzo, 1993) continues to be a reliable and theory-based instrument to measure preservice physical educators' attitudes toward teaching students with disabilities, not all attitudinal research on GenPE teachers' feelings toward the special needs population employs this instrument. Several significant studies have examined attitudes towards teaching students with disabilities based on other theories (e.g., contact theory, self-efficacy theory) while utilizing various methodologies. In an early study to determine what variables would favorably change the attitudes of preservice physical educators toward teaching students with disabilities, Rowe and Stutts (1987) utilized the Attitudes Toward Disabled Persons Scale (ATDP) (Yuker et al., 1960) to measure the attitudes of 175 undergraduate physical educators in four different practicum placements. The survey was administered before and after the 12-week practicum, and results indicated prior experience and quality field placement as factors that contribute to the differences in attitudes.

A longitudinal study conducted by Duchane et al. (2008) also utilized the ATDP scale to measure the attitude of 183 preservice physical educators enrolled in an undergraduate APE course. The survey was given to the preservice physical educators during the first APE course, before any class experiences, over five years from 2002 to 2007. Results determined that the

positive but low attitudes indicated the preservice physical educators viewed students with disabilities differently than their non-disabled peers, thus creating an implied negative attitude toward students with disabilities. However, it was determined that previous experience with students with special needs and those majoring in APE resulted in more favorable attitudes. Additionally, the authors argued that contact time (e.g., students with family members with disabilities versus students with no experience) significantly impacted favorable attitudes towards teaching the special needs population.

In a recent study using contact theory, Wozencraft et al. (2015) investigated the role of service-learning on undergraduate students' attitudes toward individuals in the special needs community. Eighty-four college students participated in coursework and a 12-week hands-on experience at a therapeutic camp for individuals with disabilities. The findings revealed a significant change in attitude resulting from the combination of coursework (e.g., assignments, lecture) and the practicum experience. However, the participants' gender and academic major had no significant impact on the undergraduates' attitudes toward the individuals with special needs. The authors' findings concluded that coursework alone does not significantly influence attitudes, nor does stand-alone experiences without connection to content knowledge. Therefore, the most impactful intervention on changing preservice physical educators' attitudes is for PETE programs to provide content knowledge in APE courses and practical experiences with students with disabilities.

While not as numerous as quantitative research, qualitative approaches have also yielded invaluable in-depth data on how attitudes toward teaching students with disabilities may change. By gathering descriptive data through interviews and observations, Parker (2002) explored the experiences the educators had teaching students with emotional and behavioral disorders (EBD)

in the GenPE setting. Results determined that the participants felt they needed more experience to feel competent to teach students with disabilities. Additionally, findings indicated the need for PETE programs to implement frequent and quality experiences with diverse populations before student teaching.

Overall, while some variables show up in research as predictors to preservice physical educators' attitudes toward teaching students with disabilities, such as gender (Folsom-Meek et al., 1995), others did not indicate certain variables like gender as factors (Wozencroft et al., 2015). However, common threads that run through most preservice teacher attitudinal studies include a) the significance of APE course design and content, b) quality practicum experiences, and c) prior experience with the special needs population.

APE in PETE

The goal of physical education is to create physically literate individuals, who through well-designed and sequenced learning tasks, develop skills, knowledge, and behaviors to be active and proficient movers in recreational, vocational, and daily living tasks (SHAPE America - Society of Health and Physical Educators [SHAPE America], 2014). Moreover, the addition of physical literacy into discourse among physical educators has helped to understand how individuals learn and demonstrate skilled action (Corlett & Mandigo, 2013). "Individuals who are physically literate move with competence in a wide variety of physical activities that benefit the development of the whole person" (Mandigo et al., 2009, p. 28).

Quality physical education programs are built around all learning domains (i.e., psychomotor, cognitive, affective) that benefit the whole child and include essential components such as a) meeting the needs of all students, b) keeping students active for the majority of the instructional time, c) providing plenty of practice opportunities, d) teaching self-management in

a positive emotional environment, f) emphasizing lifelong physical activity, and e) creating enjoyable experiences for all students (Graham et al., 2020; SHAPE America, 2015). Physical educators' role is to teach movement concepts and motor skills, health-related fitness, rhythm and dance, and aquatics while instilling a life-long appreciation for physical activity to promote health, happiness, and social growth (Graham et al., 2020; Corlett & Mandigo, 2013). Therefore, the role of a PETE program is to design and sequence a curriculum to prepare and train undergraduate students to become professional physical education teachers capable of educating students with diverse needs and abilities (Bruno, 2020; Drewson & Lackman, 2020).

Quality PETE programs should include a) national accreditation, b) PETE standards, c) an array of experiences to practice effective teaching strategies and current best practices, d) content knowledge, and e) professional dispositions modeled by PETE faculty in higher education settings (Jin et al., 2013; Napper-Owen et al., 2008). The National Standards for Initial Physical Education Teacher Education serves as a guideline for PETE programs to train teacher candidates in content knowledge, skills and health-related fitness, planning and implementation, instructional delivery and learning management, student assessments, and professionalism (SHAPE America, 2017). Even under the guidance of national accreditation and standards, PETE programs cover a wide variety of curriculum content (e.g., motor learning, administration, behavior management, methods, biomechanics, adaptive, technology, assessment, exercise physiology) in several delivery models (i.e., separate courses, infused courses, separately & infused courses) (Hetland & Strand, 2010).

Quality APE

Every learner in the GenPE classroom has a distinctive set of needs, skills, and attributes. There is a growing diversity of abilities and an emerging need for pedagogical approaches to

include all types of learners. Inclusion in GenPE respects all types of student learning abilities through an array of movement concepts and skill themes (Graham, Holt-Hale, & Parker, 2013; Webb & Pope, 1999).

A case study by Park and Curtner-Smith (2018) revealed characteristics of high-quality APE courses. The first characteristic involved coursework that was practical and felt relevant to real-world application. Students found the most valuable material to include information on various disabilities, how to modify and adapt equipment, complete appropriate assessments, demonstrations for adapting sports and physical activities, and disability law. However, students indicated that the most significant characteristic of a high-quality APE course was the practicum. The hands-on experience allowed the preservice teachers to observe, try various instructional strategies, and connect with the students. Additionally, students valued the mentorship, knowledge, and passion of their instructors and cooperating teachers as models of effective teaching in APE. Contrastingly, low-quality APE classes included more surface-level coursework on different disabilities, the history of APE, and basic modifications to sports and physical activities with minimal time devoted to pedagogy. Most absent in these courses was the implementation of quality practicum experience yielding preservice teachers who felt overwhelmed and underprepared.

Pedagogical Dissonance and Resilience in APE

Pedagogy is the science of methods and practice used for teaching. Further, the connection between these components and classroom culture is defined by the instructor's values, attitudes, and beliefs on how learning occurs. According to Bradbury (2020), "pedagogical dissonance emerged from the intersection of pedagogy, cultural dissonance, and cognitive dissonance" (p. 106). An individual experiencing pedagogical dissonance combats a

lack of harmony in their teaching practice compared to reality. “This discomfort is derived from a fear of the unknown” (Bradbury, 2020, p. 107). This phenomenon is experienced in settings that are unfamiliar to the teacher and contradict their training and preparation in teacher education program.

In contrast, “pedagogical resilience requires teachers to adjust their beliefs and practices to accommodate a student population that is diverse” (Bradbury, 2020, p. 115). Every learner in an inclusive GenPE classroom has a distinctive set of needs, skills, strengths, and attributes. The diversity of student developmental levels, including those on IEPs, shows an emerging need for inclusive pedagogy practices to be implemented into PETE programs. Universal Design for Learning (UDL) framework is one example of inclusive pedagogy recommended for PETE programs to infuse into their curriculum.

UDL framework is a tool for GenPE teachers to gain knowledge, comfortability, and training toward teaching students with and without disabilities. Using UDL in physical education removes barriers for students of all ability levels. Additionally, the physical and social learning environment is supported, thus increasing learning possibilities (Lieberman & Houston-Wilson, 2018; van Munster et al., 2019). There are multiple ways of infusing the UDL framework into undergraduate PETE pedagogy courses, including methods courses and student-teaching. Undergraduate physical education methods courses can infuse the framework in lectures, lesson planning, and assess the application of UDL in peer teaching and field-experience lessons (Lieberman & Grenier, 2019).

Another type of inclusion pedagogy PETE programs can infuse into the curriculum is differentiated instruction (DI). As the research showed, DI provides modifications and accommodations to students with disabilities based on the individual’s unique needs. A study by

van Munster et al. (2019) depicted teachers utilizing similar programming for all students but differentiating program goals, content, or assessment when needed for students of varying abilities. Pedagogical accommodations included minor adjustments to the class. Instructional adaptations provided differentiated instructions to students with disabilities. Rules and roles were modified to maximize participation. Environment and equipment were readily changed by distance, height, shape, size, weight, or tactile feel to meet the needs of the diverse student population.

In sum, PETE programs can enhance teacher candidates' pedagogical resilience by infusing inclusive pedagogy practices throughout the curriculum beyond a one-semester introductory APE course. However, while pedagogical resilience is possible, it is not always promised. "Analysis, application, and reflection help prospective teachers to innovate and improvise to meet the needs of specific classroom contents" (Bradbury, 2019, p. 109). The infusion of inclusive pedagogy into all PETE courses is a step forward to adequately preparing preservice physical educators with the resources needed to teach students with and without disabilities (Folsom-Meek & Rizzo, 2002, Griggs & Medcalf, 2015; Lieberman & Grenier, 2019). The diversity of students' ability levels in a physical education class varies across all developmental domains (i.e., psychomotor, cognitive, social). "The very visible requirement for differentiation is magnified by the performative nature of the outcomes which define perceived success of any individual task accomplishment" (Griggs & Medcalf, 2015, p. 123). As PETE programs infuse practical instructional approaches (i.e., pedagogy) for teaching students with disabilities throughout their curriculum, the outcome is to generate GenPE teachers with behavioral intention, competency, and preparedness for inclusion. Due to significant findings on the importance of academic preparation and its effect on GenPE teachers' attitudes toward

teaching students with disabilities, PETE programs need to train preservice teachers to use inclusive pedagogy while providing hands-on experiences to apply the knowledge.

Practicums in APE

A significant detail found in literature was the value of field experiences in introductory APE courses as a factor contributing to the confidence and competence of preservice physical educators toward inclusion. Studies showed that field experience, both on and off-campus, is invaluable for improving the attitudes of preservice physical educators when teaching students with disabilities (Folsom et al., 1995; Hodge & Jansma, 1999; Hodge & Jansma, 2000). Several researchers have suggested introductory APE courses not only to include content but to provide a required practicum for students to apply knowledge in efforts to enhance preservice physical educators' experiences teaching students with disabilities (French et al., 1978; Jansma, 1988; Lavay & Pizarro, 1987; Walsh et al., 1992). Further, Lavay and Pizarro (1987) proclaimed, "preservice university training programs need to graduate physical education teaching majors who are prepared and confident to effectively teach all children, including those who are handicapped" (p. 81).

In recent empirical research on APE courses with required practicum, Roper and Santiago (2014) determined that hands-on experience through practicums provides future physical educators with "opportunities to explore preconceived ideas surrounding disabilities, positively affect their attitudes, and develop interpersonal and problem-solving skills for working with students with disabilities in a physical activity setting" (p. 176). The qualitative, grounded theory study examined the attitudes toward individuals with disabilities of 14 undergraduate students enrolled in an APE course with a 6-hour service-learning project. Data were collected through focus group interviews, designed to allow participants to build on each other's ideas

(Patton, 2015). Results indicated that all 14 participants had a positive experience, and the practicum increased their knowledge, pedagogy, and self-efficacy toward teaching students with disabilities.

Furthermore, Woodruff and Sinelnikov (2015) utilized a similar research approach for how the perceptions of teaching students with disabilities evolved during a 10-week strength and conditioning practicum. Participants included 50 undergraduates enrolled in an APE course with a required practicum. Data were collected through formal interviews, informal interviews, reflective journals, direct observation, and critical incident reports, a technique used to collect data on significant events contributing to the participants' knowledge. Results from data analysis concluded that the participants' most meaningful experiences were in developing relationships with the students. Conversely, communication and effective pedagogy were the most challenging. The authors concluded that hands-on experience (i.e., service learning) is an effective strategy for mastering APE course content knowledge through purposeful integration. In additional qualitative research, an explanatory case study by Sato et al. (2015) examined ten preservice physical educators enrolled in an APE course with an adapted aquatic practicum to describe and explain the beliefs toward teaching students in the special needs population. Data were collected through interviews, reflective journaling, and follow-up email correspondence. Findings revealed that APE coursework and practicum experiences teaching students with disabilities should be “recommended, if not required, in our PETE programs” (p. 325).

Quantitative studies in attitudinal research on in-service and preservice physical educators are the most common research design. Taliaferro et al. (2015) used this methodology to investigate the effects of an APE course with an on-campus practicum on preservice physical educators' self-efficacy toward teaching students with disabilities. The study utilized self-

efficacy theory (Bandura, 1977) to evaluate personal beliefs of competency, learn more about how they were developed, and predict future beliefs toward inclusion (Block et al., 2010). Participants of the study included 98 undergraduate PETE majors enrolled in one of two 15-week APE courses. Data were collected over three semesters, and all participants, regardless of the specific APE course, were assigned the same 9-week, on-campus practicum experience. The practicum was designed to meet all four sources of self-efficacy – social persuasion, social modeling, psychological responses, and mastery experiences (Bandura, 1977). Data were collected through two instruments, the Physical Educators' Self-Efficacy Toward Including Students with Disabilities – Autism survey (PESEISD-A) (Taliaferro et al., 2010) and the Situation Specific Self-Efficacy Instrument for Physical Education Teacher Education Majors scale (SSSI-PETE) (Block et al., 2013). Results of the study aligned with previous studies to conclude that APE courses combined with practicum experiences impact preservice physical educators' self-efficacy toward teaching students with special needs in an inclusive learning environment. Conversely, previous studies have pointed to prior experience and previous academic preparation as variables that impact attitudes toward inclusion (Block & Rizzo, 1995; Duchane et al., 2008; Hodge & Elliott, 2013; Hodge & Jansma, 2000); however, the findings contradicted those results. Data indicated no significant change in self-efficacy scores between the participants who had prior academic preparation and experience compared to those who did not have any prior experience or courses in APE.

Few studies have utilized a mixed-methods approach to determine and predict the attitudes and self-efficacy of preservice physical educators toward inclusion and to examine in-depth how and why the variables (e.g., APE courses, practicum experience) play a role in building competence and preparedness in the future teachers. Estel-Layne and Blasingame

(2018) utilized a mix-methods approach to measure 71 PETE students' perceptions of a 15-hour practicum experience in a self-contained APE setting. Data were collected through pre- and post-test surveys using Likert-scale and open-ended questions. Additionally, four PETE students were interviewed at the beginning and the end of the practicum. Results showed a significant increase in confidence for all participants and supported previous research that practicum experience is a factor in increasing self-efficacy, competence, and confidence toward teaching students with disabilities (Taliaferro et al., 2015; Woodruff & Sinelnikov, 2015).

Literature Gaps

Based on the extensively reviewed literature, there is a long history of research conducted on GenPE teachers' attitudes toward teaching students with disabilities. Additionally, several instruments have been developed to measure what variables contribute to changing attitudes. There were also multiple theory-based suggestions for implementing quality practicums to affect the educational philosophy of inclusion. However, there is an emerging and suggested need (Yarimkaya & Rizzo, 2020) to develop mixed-methods studies to determine if changes occur in preservice physical educators' attitudes toward inclusion but also to gather in-depth data into how, why, and when self-efficacy toward teaching students with disabilities occurs during APE courses combined with quality practicums.

Chapter 3. Methodology

The following chapter aimed to outline the methodology of the study and the methods or techniques used to explore the research questions. By utilizing a mixed-methods methodology for this study, the researcher attempted to answer gaps in the literature by providing a complete understanding of the research problem through sequentially examining both quantitative and qualitative data within the investigation. The overarching focus of this chapter was on the procedures employed to examine what impact an embedded practicum in a modified (i.e., Unified) physical education class had on preservice physical educators' attitudes toward teaching students with disabilities and their perception of self-efficacy toward creating inclusive learning environments in the general physical education (GenPE) setting. Data on preservice physical educators' attitudes toward teaching students with disabilities were collected through both a pre- and post-practicum survey. The quantitative data collected measured changes in attitude and perceived competence. Additionally, the qualitative data were utilized to explain the factors and deepen the understanding of the participants' change in attitudes, perceptions of self-efficacy, practicum effectiveness, perceived preparedness, and personal and professional development.

The following chapter has seven sections, including a description of the research questions, rationale for the approach and design of the study, the setting and sampling methods, instrumentation and materials, data collection, data analysis and validation procedures, and ethical considerations of the study.

Research Questions

Based on a review of the literature, the following research questions guided this investigation. The principle question for the study was *what effect does an embedded practicum in a modified physical education class have on the attitudes and perceived self-efficacy of*

preservice physical educators toward teaching students with disabilities in an inclusive GenPE setting? The following four additional sub-questions provided further insight to answer the study's principle research question:

- SRQ1: What are the attitudes and perceived competence of a preservice physical educator enrolled in an introductory adapted physical education (APE) course toward teaching students with disabilities before and after a practicum experience?
- SRQ2: What influence did the introductory APE course and practicum have on preservice physical educators' attitudes and perceived competence to teach students with disabilities?
- SRQ3: What components of the introductory APE course and practicum best prepared the preservice physical educator for teaching students with disabilities?
- SRQ4: How did the preservice physical educators view the practicum experience as relevant to their personal and professional development?

Research Design and Approach

The selected research approach for this study was mixed-methods, which provided a thorough, comprehensive understanding of the research problem. While the mixed-methods approach is not without scrutiny from research purists, who believe in a research methods dichotomy, pragmatists believe that multiple approaches can be utilized within research to find solutions for real-world problems. Researchers in the pragmatic paradigm often employ the mixed-methods approach to collect and analyze multiple types of data sets. Additionally, pragmatists focus on the practical implications of the study and what method can collect the best data (i.e., quantitative and qualitative) to answer the research problem (Creswell & Poth, 2018). Quantitative data sets were provided through numerical data collection (e.g., surveys) and

statistical analysis. In contrast, qualitative data were collected from thick, descriptive communication (e.g., interviews, reflective journaling) and analyzed by memoing emerging ideas, classifying codes into themes, developing interpretations, and representing the data (Creswell & Poth, 2018).

The strength of mixed-methods research lies in the utility of thoroughly explaining relationships. First, the mixed-methods approach assisted the researcher by helping to annotate the correlational relationships between variables. Second, the approach allowed for variables to be explored in-depth, resulting in one approach identifying areas of interest for the other. Finally, mixed methods allowed the researcher to "confirm or cross-validate relationships discovered between variables... to see if they converge on a single interpretation of a phenomenon" (Creswell & Poth, 2018, p. 504).

Research Design

Multiple research designs can exist within the mixed-methods approach, and each design encompasses a certain combination of quantitative and qualitative data. The characteristics of the research questions determined this research design; this study utilized an explanatory sequential research design. Explanatory research first employs a quantitative method (i.e., survey) followed by qualitative methods (i.e., interviews, documents) to enhance the results. For this investigation, the researcher analyzed data separately and used the results from the qualitative phase to provide a more in-depth explanation of the quantitative results from the study.

Within this explanatory research design, data were collected and analyzed sequentially. Using a sequential design within the mixed-methods approach allowed one phase of the study to build upon the other. In this study, the researcher first collected and analyzed data in the

quantitative phase and then used the findings to develop data collection and analysis in the predominant qualitative phase.

Setting and Sample

Research Site Profile

A local high school modified (i.e., Unified) physical education class served as the research site. The modified physical education class was a small inclusive physical education learning environment that included 13 students with disabilities and eight students without disabilities. Often referenced as “Unified PE”, the class utilized curriculum from Special Olympics to unite students of all abilities in an inclusive service-delivery model.

According to the U.S. Department of Education (2019), the midsized suburban school has 1,826 total students enrolled in grades nine through twelve. Seventy-two percent of the students were White, 11% Black, 9% Hispanic, 6% are Two or More Races, 2 % are American Indian or Alaska Native, 1% Asian, and less than 1% are Native Hawaiian or Pacifica Islander. Twenty-nine percent of the student population qualified for free lunch while 6% were eligible for reduced-price lunch.

Population

The setting for this study was a university in a northern Midwest border-town community with a total population of approximately 205,000. Currently, the university enrolls 5,860 students, with 82% of the population as undergraduates. 61% of the university's student population were female, and 39% were male. The ethnicity of the university student population was as follows, 79% White, 4% Black, 4% Two or more races, 3% Hispanic/Latino, 2% Asian, 1% American Indian, and 1% race/ethnicity unknown (National Center for Education Statistic, n.d.).

Sample

The participants for the study were physical education majors from a northern Midwest university who were enrolled in an introductory APE course (i.e., PE 452). There were 20 total students enrolled in the course, 90% of the undergraduate students were physical education majors while 10% were either nursing or exercise science majors. Initially, the participants in the study included 13 physical educators in the APE course, however, one participant did not complete the pre-practicum survey and three participants did not complete the post-practicum survey, yielding nine total participants for the study. Of the participants who completed the study ($n = 9$), 66% were cisgender men and 33% were cisgender women. The participants' class standings included 11% sophomores, 44% juniors, and 44% seniors. Additionally, 88% of the participants identified as White and 11% as Hispanic or Latino.

Given the study's qualitative dominance (i.e., $\text{quan} \rightarrow \text{QUAL}$) within the mixed-methods research design, purposive sampling was employed for this inquiry. Purposive sampling is often used in qualitative studies as researchers look to intentionally select a population of information-rich participants and have experience in or knowledge of the central idea within the area of interest. Additionally, qualitative studies typically choose a limited number of participants who can provide a wealth of in-depth knowledge and detailed information that would be harder to gather from a large group of participants. Conversely, quantitative studies often choose larger randomized populations so that results can be generalized. When this is a challenge, such as in educational settings, a purposive sample is used along with the author's suggestions and encouragement for replicating the research to strengthen the external validity of the original study. As the original research is repeated while using different participants under different

conditions (e.g., socioeconomic status, ability, geography), similar results would yield more generalizable findings (Fraenkel et al., 2019).

The specific sampling frame of the study's participants was based on specific criteria. The criteria included a) participants must be physical education majors, and b) participants must be enrolled in the university's introductory APE course (i.e., PE 452: Adapted Physical Education). Fraenkel et al. (2019) suggest this type of sampling does not allow the population (e.g., all physical education majors) to have an equal opportunity to be selected by the study and, in some cases, no chance at all (e.g., students enrolled in the APE course who are not physical education majors).

Role of Researcher

The researcher was an assistant professor and Developmental Adapted Physical Education (DAPE) Program Coordinator in the Department of Health and Human Performance at a Midwestern university. The researcher had seven years of teaching experience in inclusive physical education learning environments in the K-12 public school setting, one year serving as a DAPE consultant, and 13 years in higher education. The researcher held the role of DAPE Program Coordinator for two years at the time of the study and had been the primary instructor for all the DAPE courses at the institution for three years. Additionally, for five years, the researcher taught the introductory APE course (i.e., PE 452), which served as the course under investigation in this study.

Before conducting the study, the researcher assumed multiple roles within the data collection process. First, the researcher sought approval from the university through the institutional review board (IRB). Next, the investigator identified a site (i.e., high school modified physical education class) for the embedded practicum and developed a relationship

with the gatekeeper. According to Creswell and Poth (2018), "a gatekeeper can be especially important when seeking access to marginalized groups because of the trust" (p. 156). The researcher developed a collaborative rapport with the gatekeeper over several years, but before the study, the following questions from Bogdan and Biklen (1992) were discussed:

- Why was the site chosen for the study?
- What will be done at the site during the research study?
- How much time will be spent at the site by the [participants and] researcher?
- Will the researcher's presence be disruptive?
- How will the results be reported?
- What will the gatekeeper, the participants, and the site gain from the study?

Furthermore, the researcher requested permission to utilize Dr. Terry Rizzo's (1993) Physical Educators' Attitudes toward Teaching Individuals with Disabilities (PEATID-III) survey. Upon receiving permission to use the instrument, the researcher generated an electronic version of the survey in Qualtrics (see Appendix A).

During the study, the researcher invited the sample (i.e., physical education majors enrolled in the APE course) to participate in the research. The participants were informed that their participation in the study was voluntary, responses would be kept confidential, and identities would remain anonymous. Participants were also notified that their participation or non-participation in the study would not be part of the evaluation for the course. The participants were advised that they could withdraw from the study at any time without fear of penalty or retribution from the researcher. The primary role of the researcher in this study was to collect data through surveys and documents (i.e., reflective journals, summary of experience reports) and to conduct a focus group interview and analyze the results. Upon completing the data

analysis, the researcher shared the results with the participants, the gatekeeper, and the university stakeholders.

Data Collection

The research methodology for this study ventured to contextualize how preservice physical educators felt about teaching students with disabilities and whether hands-on experience in a practicum setting increased their self-efficacy toward creating inclusive learning environments for students of all abilities in their future GenPE classes. Additional items attempted to be measured in this study were the participants' feelings of preparedness from the APE course and embedded practicum and their competence and professional development toward teaching students with disabilities.

Upon receiving IRB approval from the university, stakeholders at the institution allowed access to a purposive sample of students in the PETE program enrolled in the introductory APE course (i.e., PE 452) (see Appendix B). In the Fall semester, the researcher met with the sample and provided an invitation letter and informed consent form explaining the purpose of the study (See Appendix C). The preservice physical educators were informed that participation would be voluntary and that their participation or non-participation in the study would not affect their course grades. Participants of the study included 9 of the 20 students enrolled in the course. After obtaining informed consent, the researcher emailed the quantitative survey (PEATID-III, Rizzo, 1993) to the participants. The survey was designed to predict behaviors toward teaching students with disabilities based on how the participants answered the attitudinal (i.e., belief) questions. During the practicum, the participants kept reflective journals detailing their observations and practices in the 13-week experience. At the completion of the practicum, the participants took the PEATID survey again and completed a summary of experience report, which was also collected

as data. Finally, a semi-structured focus group interview was conducted to gain further knowledge into the participants' feelings toward teaching students with disabilities.

Instrumentation and Materials

The Physical Educators' Attitudes toward Teaching Individuals with Disabilities (PEATID-III) (Rizzo, 1993) survey served to provide quantitative data for the study. The survey was initially used as a pre-test prior to the start of the practicum to explore the relationship between preservice physical educators' (n = 9) attributes and attitudes toward teaching students with disabilities. Upon completing the 13-week practicum, the PEATID-III survey was administered a second time as a post-test to discern what changes in attitude and perceived competency toward teaching students with disabilities had transpired throughout the practicum experience.

The PEATID-III survey, initially the Physical Educators' Attitudes toward Teaching the Handicapped (PEATH) (Rizzo, 1984), has been revised twice and is the first survey in adapted physical activity to be linked to a theoretical model. The instrument was developed from the theory of reasoned action (Ajzen & Fishbein, 1980) and assumes that attitudes or beliefs can predict intention to perform a behavior. Results from the PEATID-III infer that participants' attitudes toward the behavior (i.e., teaching students with disabilities) were based on their agreement to the 12 belief statements in the survey.

The PEATID-III consists of two sections. The first section assessed attitudes towards teaching students with disabilities by measuring the beliefs of the preservice physical educators. The participants in this study answered based on a 5-point Likert attitude scale (i.e., 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree). There were 12 total questions about attitudes toward teaching students with disabilities, six were phrased positively

(e.g., teaching students labeled _____ in my regular physical education classes will motivate nondisabled students to perform motor skills) and six were negatively phrased (e.g., students labeled _____ will not be accepted by their nondisabled peers in my regular physical education classes). This study used the definitions of four labeled disabilities: 1) physically impaired (PI), 2) autism spectrum disorder (ASD), and 3) mild-moderate intellectual disability (DCD). Scale scores were generated from the survey, one for each disability label item and a total score. Additionally noted, the PEATID-III allows for the specification of different disability types and the number of disabilities to be investigated by researchers, thus the instrument's utility.

The second section of the PEATID-III (Rizzo, 1993) measured the participants' demographic and descriptive attributes. There were 13 questions about various demographics (e.g., gender, age, number of adapted physical education courses taken, number of special education courses taken) and descriptive attributes (e.g., experience and competence teaching individuals with disabilities, relationships with individuals with disabilities) of the participants. The attribute questions were modified from the original survey to fit the participants' preservice physical educator status (Folsom-Meek et al., 1995).

For this study, an electronic version of the PEATID-III (Rizzo, 1993) survey was generated through Qualtrics (See Appendix A). The researcher sent the survey link to the participants' email addresses and included a signed copy of the informed consent form for the participant's files. Three days following the initial email, the researcher sent a follow-up email as a second request for participation in the PEATID-III survey. The survey was closed prior to starting the practicum.

Validity

Content and construct validation were measured for the initial PEATH (Rizzo, 1984). Six experts in adapted physical education research (i.e., physical education, special education, educational psychology) determined the instrument's content validity. Fraenkel et al. (2019) note that the content and format of the instrument must be correlated with the variable's definition and the sample of participants in the study.

Further, results from an unpublished study explained the construct validity of the PEATH survey through a principal components analysis resulting in the reduction of the length of the PEATH from 20 to the current 12 questions on attitudes toward teaching students with disabilities. Construct validity uses an array of evidence to measure an instrument's validity, including content and criterion-related. According to Fraenkel et al. (2019), construct validity consisted of the following three steps: 1) the variable was defined, 2) theory-based hypotheses were formed on how participants with a little or a lot of the variable will behave in various situations, and c) the hypotheses were empirically tested.

Reliability

Reliability measures the accuracy or consistency of an instrument. There are several methods to find an instrument's reliability that require two testing sessions. However, various methods require a single administration of the instrument, called internal consistency methods. One of these methods is calculating the alpha coefficient (Cronbach, 1951), which is the recommended measure of reliability for Likert attitude scales. Reliability estimates generated an alpha coefficient of 0.85 for the PEATH (Rizzo, 1988).

The original PEATH and revised PEATH-II were renamed the PEATH-III to reflect trends in the terminology used to describe individuals with disabilities. A study conducted by

Folsom-Meek and Rizzo (2002) were the first to explore the validity and reliability of the PEATID-III pertaining to preservice teachers by administering the survey to 3,464 participants enrolled in an introductory APE course across 235 colleges and universities. Construct validity was acquired through principal components analysis and factor analysis, which show intercorrelations between the scores to determine how many constructs account for the intercorrelation—the clusters show which questions in the instrument measure the same construct and the strength of the measurement.

Results of the analysis showed the PEATID-III measured the following three beliefs about teaching students with disabilities: 1) outcomes of teaching students with disabilities in GenPE, b) effects on student learning, and c) the perception of academic preparedness for teaching students with disabilities (Folsom-Meek & Rizzo, 2002). Furthermore, the reliability of the PEATID-III was estimated through the coefficient alpha at 0.88 for the total scale and 0.71 or higher for each of the disabilities (i.e., behavioral disorders, mild mental retardation, learning disabilities) scales.

Qualitative Sequence

During the qualitative phase of the study, the researcher employed two different types of information, including a semi-structured focus group interview and collection of documents (i.e., reflective journals, summary of experience reports). After completing the PEATID-III (Rizzo, 1993) post-practicum survey, a focus group was created and a semi-structured interview was conducted via Zoom. The researcher's interview protocol can be found in the Appendix D. Qualitative data were also collected by the researcher through documents (i.e., participants' journals, summary of experience reports) to achieve trustworthiness in the study. Triangulation, the use of more than one research method, allowed the investigator to establish credibility,

validation, and reliability in the qualitative phase of the study (Creswell & Poth, 2018).

Triangulation was achieved through surveys, a semi-structured focus group interview, and documents. Raw data from the participants' journals and the summary of experience reports were not included in the appendices to keep the anonymity of the participants.

Data Analysis

In this mixed-methods study, data collection and analysis processes occurred sequentially and were treated separately in the explanatory research design. Both the quantitative and qualitative data played a role in answering the main research question found in the study, with the qualitative data providing further insight into the sub-questions. Subsequently, strategies to ensure validity for both methodologies were employed throughout the study.

Quantitative Data Analysis

Data from the quantitative phase (i.e., PEATID-III) were analyzed using Statistical Package for the Social Sciences (SPSS version 28). Scores were calculated for each disability label and a total was summed to interpret the preservice students' attitudinal responses. Rizzo (1993) suggested deriving proper means by reversing any negatively worded item during analysis to offset respondents' mental set during the survey.

For this study, descriptive statistics were used for the survey results of the 12 belief statements from the first half of the PEATID-III (Rizzo, 1993) survey. Negatively phrased items (i.e., 5, 6, 7, 8, 9, 10) were reverse coded in SPSS to positive scores. The range of possible total scores was 36-180, with the higher score reflecting more positive attitudes toward teaching students with disabilities. Mean (*M*) scores were used to measure central tendency while the standard deviation (*SD*) measured the variability of the participants' scores. Total score mean increases and mean percent change were calculated to determine the significance of participants

score changes over a period of time. Correspondingly, data from the 13 demographic and descriptive questions (e.g., age, gender, educational status, perceived level of competence, types of experiences) obtained in the second half of the survey were used for demographic and descriptive analysis.

Qualitative Data Analysis

Data from the qualitative phase (i.e., focus group interview, documents) were analyzed in a process Creswell and Poth (2018) call the data analysis spiral. The data analysis spiral includes five steps:

- Managing and organizing data
- Reading and memoing emergent ideas
- Describing and classifying codes into themes
- Developing and assessing interpretations
- Representing and visualizing the data

First, the researcher in this study began with collecting and managing data. Data (i.e., interview transcriptions, participant journals, summary of experience reports) were organized into digital files, and a consistent naming system was created. The researcher developed a data inventory spreadsheet to organize all files by category, data form, date of collection, and participant pseudonym for quick retrieval. All files were stored on a password-locked computer.

Second, the researcher got a sense of the entire database by analyzing the data through reading and memoing emergent ideas on the transcriptions, participant journals, and summary of experience reports. Creswell and Poth (2018) suggest three memoing practices for researchers:

- Prioritize memoing throughout the entire analysis process.
- Create a system for memoing organization.

- Develop a strategy for sorting and retrieval of memos.

An additional strength memoing brings to qualitative data analysis is the creation of a digital audit trail. An audit trail allows for the data analysis process to be retraced and is a validation strategy that researchers take to document the thinking process when developing the study's findings (Creswell & Poth, 2018).

In the third step of the data analysis spiral, the researcher moved from reading and memoing to describing, classifying, and interpreting the data to form codes and themes. Creswell and Poth (2018) described codes as "the heart of qualitative data analysis" (p. 189). Further, the authors suggested researchers use a lean coding approach by developing five to six coded categories and then expanding the code list with each review of the data. This process is completed through inductive and deductive logic from the 'bottom up' by organizing data inductively into abstract units of information, back and forth from data to themes, until cohesive, comprehensive themes are established (Creswell & Poth, 2018). According to Patton (2015), the process of inductive analysis consists of locating themes, patterns, and categories found in the data. Conversely, in the deductive analysis process, data are evaluated against and pre-existing framework. Data in this study were coded using both the inductive and deductive analysis logic. Once the code list was finalized, a codebook was created to formulate boundaries and included a name for the code, whether the code was prefigured (i.e., deductive) or emergent (i.e., inductive), a definition and description of both inclusionary and exclusionary criteria, and a verbatim example of text from the study. The codebook for this study can be located in the appendices (see Appendix G).

Classifying several codes into aggregated common ideas is the process of theming, often resulting in five to seven general themes (Creswell & Poth, 2018). Further, Bazeley (2013)

described the invaluable role coding plays in the creation of themes in that "the development of themes depends on data having been coded already" (p. 191). The researcher of this study utilized the following approaches for the exploration and development of the study's themes, based on the suggestions of Creswell and Poth (2018):

- Utilized memoing to capture emerging thematic ideas
- Highlighted significant quotes during the coding process
- Created diagrams to represent relationships among codes
- Drafted summary statements of recurring notable data

The fourth step in Creswell and Poth's (2018) data analysis spiral focused on developing and assessing interpretations. The interpretive process required creative and critical judgments of what meaning was held in patterns, themes, and categories developed through the analysis process (Patton, 2015). This process moved beyond the practice of coding and theming by extracting a more significant meaning and sense-making from the data. The researcher based the interpretations on hunches, feelings, and insight to connect to an existing construct or theory developed in other research. Qualitative researchers must stay vigilant for alternative understandings and utilize strategies to challenge their interpretations (Creswell & Poth, 2018).

In this study, the researcher linked interpretations of the study's data to research literature, sought peer feedback on the study's audit trail, and applied Grbich's (2013) questions for guiding interpretation:

- What surprising information did you not expect to find?
- What information is conceptually interesting or unusual to participants and audiences?
- What are the dominant interpretations, and what are the alternate notions?

In the final step of the data analysis spiral, Creswell and Poth (2018) suggested that researchers represent and create a visualization of the data. Researchers can present information in various ways, including comparison tables, matrices, or hierarchical tree diagrams. For this study, the author chose to display data in the latter, as hierarchical tree diagrams offer a visual that depicts the inductive analysis process. Additionally, the researcher compared the findings to published literature on preservice physical educators' attitudes and self-efficacy toward teaching students with disabilities and developing inclusive learning environments.

Validity. Internal validity and credibility are vital to the success of a study. According to Fraenkel et al. (2019), internal validity means that "observed differences on the dependent variables are directly related to the independent variable" (p. 161). Identifying potential threats to internal validity or credibility in a mixed-methods study can assist the researcher in eliminating or minimizing these hazards.

There are four techniques suggested by Fraenkel et al. (2019) to reduce the threat of internal validity in quantitative studies, 1) standardize the conditions, 2) obtain relevant characteristics of the participants, 3) obtain more information on the study's details, and 4) choose an appropriate design. In this study, the researcher employed the strategies mentioned to eliminate the threats of implementation, location, instrumentation, data collector characteristics, and testing. To reduce the threat of implementation, the researcher provided the same methods to all participants. All the study participants were offered the same online content knowledge in the APE course instruction and practicum experience. Additionally, the same research site location was used for the practicum experience and interview site (i.e., Zoom) for all participants to eliminate location threats. Further, the researcher employed a widely used instrument for quantitative data collection (i.e., PEATID-III) known for its validity and reliability. Finally, by

offering the same pre- and post-test (i.e., PEATID-III) to the participants, the researcher avoided internal validity threats to testing by concluding that any improvements or changes in attitudes toward teaching students with disabilities (i.e., dependent variable) were due to the practicum experience and introductory APE course (i.e., independent variables).

In qualitative research, Lincoln and Guba (1985) declared that to establish the trustworthiness of a study, terms like credibility, authenticity, and confirmability are offered as "the naturalist's equivalents" for internal validation (p. 300). There are nine strategies outlined by Creswell and Poth (2018) that offer researchers guidance on implementing strategies for validation in qualitative studies. The authors placed these strategies into three different categories based on the lens the strategy embodies. First, through the researcher's lens, investigators can validate a study through corroborating evidence through triangulation of data sources, discovering negative case analysis, and clarifying the researcher's bias. Second, from the participant's lens, a researcher can implement member checking, persistent observation in the field, and collaborating with participants. Finally, researchers can employ tactics from the reader's lens to validate a study, including enabling external audits, generating rich, thick descriptions, or employing a peer review of the data and research process (Creswell & Poth, 2018). Subsequently, Creswell and Poth (2018) recommended that qualitative researchers utilize at least two strategies for validation in any given study. For this study, the researcher adopted the usage of six different approaches to create credibility or validation through the three lenses:

- Through the researcher's lens, the author of this study corroborated evidence through data triangulation by using multiple methods (i.e., survey, interviews, documents) and theories (i.e., TPB, self-efficacy theory, ELT). Additionally, the researcher discovered and reported any disconfirming evidence. Creswell and Poth (2018) indicated that to provide

a realistic assessment of the phenomenon, it is necessary to report negative analysis (i.e., evidence that does not fit into a code or theme). Finally, the author of this study practiced reflexivity by clarifying and disclosing any biases, values, and experiences she brought from the beginning of the study so that the reader understands her positionality which likely shaped the interpretation and approach to the study.

- The researcher utilized member checking via the participant's lens by creating a focus group of participants in the study to reflect on the accuracy of how well the data analysis represented their experience.
- The researcher engaged in a third validation strategy from the reader's perspective by employing a peer review of the data and research process.

Ethical Considerations

Researcher Bias

Qualitative researchers have often been questioned on the possibility that their positionality and preferences could bias the data (Fraenkel et al., 2019). Given human nature, even when a researcher attempts to be objective, data can be subjected to unintentional bias based on past experiences and views of the world. Additionally, it is essential for qualitative researchers to intentionally position themselves in the study by conveying their background, how their past experiences inform their interpretations of the data, and what they stand to gain from the research (Creswell & Poth, 2018).

The researcher of this study was an assistant professor in the Department of Health and Human Performance at the university where the study took place. In 2018, the researcher completed a DAPE certification program at the same institution and at the time of the study, held a license to teach physical education, health education, and DAPE in the state. During the DAPE

certification program, the researcher spent 160 practicum hours at the study's research site, albeit not in the Unified setting. The transformational experience combined with being the instructor of record for the introductory APE course prompted an interest in the study. Additionally, the researcher served as the DAPE Program Coordinator at the university and had been tasked with a program curriculum overhaul while improving the recruitment and retention of students. The researcher sought professional gains from this study if the collaboration between the introductory APE course and the research site positively changed participants' attitudes toward teaching students with disabilities, developed self-efficacy, and prepared preservice physical educators for creating inclusive learning environments.

Additionally, the researcher was committed to completing an ethical study from start to finish to avoid biases that might affect the study. As determined by Creswell and Poth (2018), ethical considerations should be examined throughout the research process. The author listed ethical considerations prior to the start of the study, during data collection and analysis, while reporting the data, and in publishing the study.

Permission and IRB Approval

Prior to conducting this study, the researcher sought Institutional Review Board (IRB) approval to ensure the ethical conduct of research involving human subjects (Mills & Gay, 2019). Authorization by all stakeholders to conduct this study can be found in the appendices (see Appendix B). Also, the researcher sought the permission of Dr. Terry Rizzo, author of the PEATID-III survey, to utilize the instrument for this study (see Appendix A).

Participants' Protections. At the beginning of the study, the researcher determined that the participants would not be put in any possible harm. According to Fraenkel et al. (2019), the first question a researcher should ask themselves is, could anyone be harmed physically or

psychologically during the study? The author of this study found that there were no foreseeable reasons any participant should be harmed, in either form, during the research.

Participants were provided an informed consent form, assured participation in the study would be voluntary, and were informed of their rights to withdraw from the study at any point without retribution. Participants were not coerced into signing the informed consent forms, and no grade was attached as an incentive to participate in the study. All students in the introductory APE course (i.e., PE 452) partook in a 13-week practicum regardless of their participation in the study.

During data collection and analysis, the researcher took caution to avoid potential power imbalances due to the teacher-student relationship by following recommendations from Creswell and Poth (2018) through the inclusion of several strategies of validation "to ensure that the account is accurate and insightful" (p. 154). Further, the privacy of the participants was respected. The researcher assigned each participant a pseudonym while keeping the participants' identities in confidence on a password-locked computer.

Ethical considerations during reporting and publishing were adhered to by the researcher by reporting honest data, findings, and conclusions. The confidentiality of the participants was maintained throughout the study, and all data were stored in a password-secured location.

Conclusion

The purpose of this study was to examine what changes in attitudes and self-efficacy toward teaching students with disabilities can occur during an introductory APE course with embedded practicum. The study was designed to investigate what factors, if any, shifted the preservice physical educators' feelings of preparedness, competence, and professionalism toward creating inclusive learning environments in their GenPE setting for students of all abilities.

This chapter included the methodology of the study, including 1) the research design and approach, 2) information on the setting, participants, and sampling, 3) details of both the quantitative and qualitative methods utilized by the researcher, 4) processes for data collection, analysis, validation, and 5) ethical consideration for a sound study. The next chapter includes the study's findings, with data collected from the sample and presented in both quantitative and qualitative analysis.

Chapter 4. Findings

The diversity of abilities has expanded in the physical education (PE) setting, as well as the need for inclusionary pedagogy, as more students who qualify for adapted physical education (APE) are receiving their services in a general (i.e., GenPE) setting. Often GenPE teachers feel inadequately prepared to teach students with disabilities and consequently experience negative attitudes toward teaching students with disabilities due to perceived competence and lack of experience. The purpose of this mixed-methods study was to examine the effects of an embedded practicum in an introductory APE course on preservice physical educators' attitudes and perceived self-efficacy toward teaching students with disabilities.

Specifically, this study analyzed pre- and post-practicum results from the Physical Educators' Attitudes toward Teaching Individuals with Disabilities (PEATID-III) (Rizzo, 1993) survey. In addition, the study pulled qualitative data from participants' reflective journals, a summary of experience reports, and a semi-structured focus group interview to explain the effects of the practicum at a deeper level. The results reported in chapter four are directly related to this study's guiding research question: *What effect does an embedded practicum in a modified physical education class have on the attitudes and perceived self-efficacy of preservice physical educators toward teaching students with disabilities in an inclusive GenPE setting?* In addition, four sub-research questions were developed to provide a holistic understanding of the effect of the practicum on attitude, perceived competence, preparedness and professional development. Results for the following sub-research questions were reported in this chapter and related directly to the guiding research question:

- SRQ1: What are the attitudes and perceived competence of a preservice physical educator enrolled in an introductory APE course toward teaching students with disabilities before and after a practicum experience?
- SRQ2: What influence did the introductory APE course and practicum have on preservice physical educators' attitudes and perceived competence to teach students with disabilities?
- SRQ3: What components of the introductory APE course and practicum best prepared the preservice physical educator for teaching students with disabilities?
- SRQ4: How did the preservice physical educators view the practicum experience as relevant to their personal and professional development?

Sections in this chapter include a summary of participant demographics, results of the pre- and post-practicum survey data (i.e., PEATID-III) (Rizzo, 1993), and thematic analysis results of the qualitative data (i.e., reflective journals, a summary of experience reports, focus group semi-structured interview) related to each of the sub-research questions and guiding research question. In this mixed-methods study, quantitative and qualitative data were used to answer the research question and sub-questions individually and combined. This allowed for a deeper understanding of what effect the embedded practicum had on the attitudes of the participants toward teaching students with disabilities and the factors that may have influenced a change in attitude, self-efficacy, and perceived competence. The findings were divided into four sections, 1) participant demographics, 2) data analysis procedures, 3) data analysis results from the quantitative and qualitative data (organized by each of the research sub-questions followed by the guiding research question), and 4) a summary.

Participant Demographics

The following section summarizes the demographic data of the study's participants. Initially, 19 preservice physical educators enrolled in an introductory APE course were invited to participate in the study. Due to the scheduling limitations of the modified (i.e., Unified) PE class time, only 13 (68%) of the undergraduate students initially participated in the study. These 13 students were sent the PEATID-III (Rizzo, 1993) pre-practicum survey via a link to Qualtrics. Three reminders were sent out to the students over two weeks; the response rate was 92% (12 of 13). One student did not complete the pre-practicum survey and was removed from the sample.

Upon completing the 13-week practicum, the 12 participants were emailed the same survey (i.e., PEATID-III) (Rizzo, 1993) with a link to Qualtrics to measure post-practicum attitudes toward teaching students with disabilities. Reminders were sent out every four days for two weeks, the response rate was 75% (9 of 12), yielding a final sample of nine participants. Factors that may have led to attrition from the study included finals week, time, forgetfulness, and end-of-the-semester responsibilities.

Demographic data of the participants ($n = 9$) showed the study included six (66.6%) cisgender men and three (33.3%) cisgender women preservice physical educators enrolled in an introductory APE course at a Midwestern university. The mean age of the participants was 22.88 years. Eighty-nine percent of the sample indicated that they had not taken any APE courses prior to the study, while 11% had taken at least one previous APE course. Conversely, 89% of the participants had taken a Special Education (SPED) course prior to the study. Seventy-seven percent of the sample had prior experience working with students with disabilities. Prior experience with students with disabilities ranged from zero to four years. Participants with a family member with a disability represented 22.2% of the sample. Finally, 44.4% of the sample

indicated they had a close personal friend with a disability. The demographics of each participant are outlined in Table 1.

Table 1

Demographic Participant Data

Pseudonym	Gender	Age Range	Prior APE Courses	Prior SPED Courses	Experience with Students with Disabilities	Family Member with Disability	Close Friend with a Disability
Allison	Woman	24-26	No	Yes	Yes	No	No
Taylor	Woman	21-23	Yes	Yes	Yes	No	Yes
Brad	Man	18-20	No	Yes	Yes	No	Yes
Cristofer	Man	27-30	No	Yes	Yes	Yes	No
Carter	Man	21-23	No	No	No	Yes	No
Josh	Man	18-20	No	Yes	Yes	No	Yes
David	Man	21-23	No	Yes	Yes	No	Yes
Jake	Man	27-30	No	Yes	Yes	No	No
Amy	Woman	18-20	No	Yes	No	No	No

Note. Adapted Physical Education (APE); Special Education (SPED).

Data Analysis Procedures

As noted in the third chapter of this study, quantitative data were collected from the pre- and post-practicum PEATID-III (Rizzo, 1993) survey results via Qualtrics and were exported to the Statistical Package for Social Sciences (SPSS), version 28. Six negatively phrased questions (i.e., 5, 6, 7, 8, 9, 10) were reverse coded in SPSS. Participants answered each question based on three types of disabilities (i.e., Autism Spectrum Disorder, Physical Impairment, Mild-Moderate Intellectual Disability) they encountered during the practicum. A composite sum from the 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree) was calculated for each of the 12 questions (Min = 3, Max = 15). Total sums were generated for both the pre- and post-practicum attitudinal scores. Additional data were collected on participants' perceived competence at pre- and post-practicum time points. Mean scores were

calculated from the 5-point Likert scale (1 = Not at all, 2 = A little, 3 = Somewhat competent, 4 = Very Competent, 5 = Extremely Competent).

Three qualitative data sets were collected to ensure validation of the study by corroborating evidence through triangulation (Creswell & Poth, 2018). First, daily journals were completed by the participants throughout the practicum. Daily reflective journaling was an APE course requirement to document the undergraduate students' actions, feelings, and thoughts throughout the practicum experience. The daily journals were submitted to D2L Brightspace, a learning management system utilized by the university. Second, a summary of experience report (see Appendix E) was submitted at the conclusion of the semester. This report gave the introductory APE course students another opportunity to reflect on the practicum experience, with prompts given by the instructor. All students completed the report by choosing five of the seven possible prompts to answer. The reports were submitted into D2L Brightspace as an assignment for the APE course. Given the course instructor was also the researcher, the participants granted the researcher permission to access these documents for the study in an informed consent letter (see Appendix C). Finally, the researcher conducted a semi-structured focus group interview with volunteer participants from the sample. All nine participants who completed the post-practicum survey were invited via email to participate in the focus group. A Doodle Poll was sent out to find the best date and time to meet. Two reminders to complete the poll were sent out within the week. The date and time were selected on the best availability for the participants. The qualitative data collected were transcriptions from the semi-structured focus group interview. The focus group interview was conducted with three participants (i.e., Jake, David, Taylor) via Zoom, a web conferencing platform. The conversation was recorded and an automatic transcription was generated in Zoom. The researcher downloaded, read, and edited the

original transcription for accuracy prior to analysis. To ensure the trustworthiness of the study, the transcriptions were sent to the participants for member checking (Creswell & Poth, 2018).

The participants found the transcriptions accurate.

The researcher utilized Creswell and Poth's (2018) data analysis spiral to analyze the qualitative data. This process allowed the researcher to 1) manage and organize the data, 2) read and memo emergent ideas, 3) describe and classify codes into themes, 4) develop and assess interpretations, and 5) represent and visualize the data.

The data analysis process began with collecting and organizing the data sets from the participants. A digital filing system was created to name (e.g., PE452_DJ_Fall2021_Amy) and house all of the files and participant information (i.e., pseudonyms, participant numbers, links to files, data collection dates, memoing and coding dates). A copy of the qualitative digital filing system can be found in Appendix F.

The second step of the data analysis spiral process began with reading the documents and transcripts in their entirety. Creswell and Poth (2018) recommended rereading the documents and using various levels of memoing. The researcher began with segment memoing by adding comments to each document's margins within Google Docs. Next, the researcher used memos from each data set to establish document memos to record evolving concepts across multiple files and eventually develop codes. Creswell and Poth emphasized the importance of memoing throughout the entire qualitative data analysis process from the first read-through to writing the conclusions.

Third, the researcher uploaded the documents into Quirkos, a computer-assisted qualitative data analysis software package, and used the software to develop initial codes for this step in the data analysis spiral. Creswell and Poth (2018) described coding as the "heart of

qualitative data analysis" (p. 189). Codes were determined through inductive (i.e., emergent) and deductive (i.e., prefigured) processes. The researcher developed a codebook and organized the codes by each question. Additional codebook information included definitions, descriptions, non-descriptions, and verbatim examples from the documents and transcriptions. Themes were developed by reducing and aggregating the initial codes to form common concepts. The themes were then added to the codebook. A copy of the finalized codebook for this study can be found in Appendix G.

The fourth and fifth steps of Creswell and Poth's (2018) data analysis spiral occurred simultaneously in this study's analysis process. The researcher developed and assessed interpretations for each theme and commenced with the writing process, while visually representing the data. Visual representation of the data can be found within each research sub-question in this chapter and in the final summary for the guiding research question. Figures included in the results show the levels of data abstraction in the analysis process, represented by hierarchical tree diagrams. Additionally, tables were organized to show the themes, codes, and phrases used by the participants to provide an audit trail for the reader. Creswell and Poth (2018) concluded that qualitative researchers use audit trails to provide validity by documenting the thinking process during data analysis.

Data Analysis Results

Results from the quantitative and qualitative data analyses are located within this section. Quantitative data were used to answer sub-research question one (i.e., SRQ1) and the guiding research question (i.e., RQ). Qualitative data were used to answer all sub-research questions (i.e., SRQ1, SRQ2, SRQ3, SRQ4) and the guiding research question. Data analysis results for each of

the sub-research questions were displayed first; with a summary of how the sub-questions answered the guiding research question at the end of this section.

SRQ1: Results Related to Pre- and Post-Practicum Attitudes and Perceived Competence

The first directly related sub-research question in this study involved examining the attitudes and perceived competence of preservice physical educators enrolled in an introductory APE course toward teaching students with disabilities before and after a practicum experience. This sub-research question (i.e., SRQ1) was answered with quantitative and qualitative data. Quantitative data on attitudes toward teaching students with disabilities were reported from the PEATID-III (Rizzo, 1993) survey results using a paired-samples *t*-test. In addition, survey results on pre- and post-practicum perceived competence were reported with descriptive statistics. Finally, qualitative data were reported through two categories, 1) pre-practicum and 2) post-practicum, with each category respectively yielding two themes, as shown in this section.

Quantitative Results for SRQ1

Descriptive statistics (see Table 2) were utilized to determine the difference between the total mean scores between the preservice physical educators' attitudes toward teaching students with disabilities at the beginning and the end of an embedded practicum experience in an introductory APE course. The primary goal was to determine if the mean for the post-practicum survey was higher than the mean for the pre-practicum survey. The descriptive statistics indicated the participants' attitudes toward teaching students with disabilities positively changed after the embedded practicum during the APE course ($M = 139.33$, $SD = 18.74$) opposed to the pre-practicum attitudes toward teaching students with disabilities ($M = 130.66$, $SD = 16.54$). The total score mean increase was 8.67. Additionally, there was a 6.64 mean percent change, which showed a significant change in a short time period during the 13-week practicum. If the

students were immersed in the practicum setting longer of continued practicum settings with students with disabilities, potentially the mean percent change could increase.

Table 2

Descriptive Statistics: Attitudes Toward Teaching Students with Disabilities

Total Sum Score	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>Range</i>
Post-Test Total Sum	9	139.33	18.75	103	176	73
Pre-Test Total Sum	9	130.66	16.55	102	159	53
Total Score Mean Increase		8.67				
Mean Percent Change		6.64%				

Descriptive statistics were also calculated from the pre- and post-practicum surveys on participants' perceived competence toward teaching students with disabilities (see Table 3).

Results indicated an increase in perceived competence after the completion of the APE course with embedded practicum ($M = 3.89$, $SD = .78$) when compared to the pre-practicum survey data ($M = 3.22$, $SD = 1.09$). The total score mean increase was 0.66. Additionally, there was a 20.5% mean percent change, which showed a significant increase in perceived competence throughout the practicum experience. Additional time and experiences with students with disabilities could result in an increase in the percent mean change for perceived competence toward teaching students with disabilities.

Table 3

Descriptive Statistics: Perceived Competence

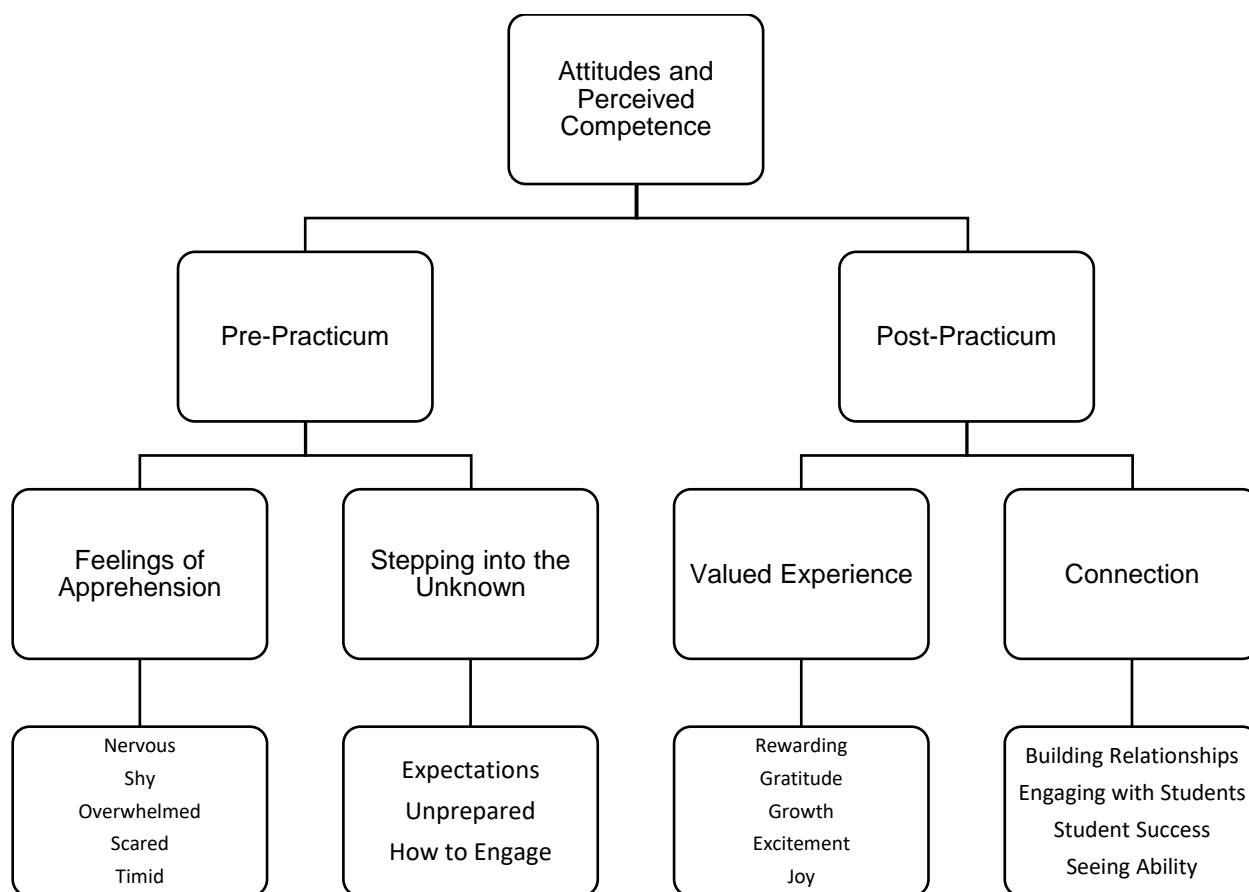
Perceived Competence Score	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>Range</i>
Post-Test Total Sum	9	3.22	1.09	2	4	2
Pre-Test Total Sum	9	3.88	.78	1	4	3
Total Score Mean Increase		0.66				
Mean Percent Change		20.5%				

Qualitative Results for SRQ1

Emergent themes were identified to explain factors that affected participants' attitudes and perceived competence toward teaching students with disabilities before and after a practicum experience. Two themes emerged from the pre-practicum data: 1) Feelings of Apprehension and 2) Stepping into the Unknown. Additionally, two themes emerged from the post-practicum data: 1) Valued Experience and 2) Connection (see Figure 1).

Figure 1

Factors Affecting Attitudes and Perceived Competence: Pre- and Post-Practicum



Pre-Practicum Theme 1: Feelings of Apprehension. The participants reported multiple *Feelings of Apprehension* to describe their beliefs toward teaching students with disabilities at the beginning of the practicum, including nervousness, shyness, and fear. The codes related to this theme and participant phrases are summarized in Table 4.

When describing their first day entering the practicum site, many students shared feelings of nervousness and fear due to having little to no experience teaching students with disabilities. In her journal entry for the day, Amy explained, "On my first day of practicum, I was nervous, and I never knew someone personally with a disability. It was foreign to me." Carter, another student with limited experience with students with disabilities, affirmed, "At the start [of the practicum], I was a little nervous to engage at all...teaching students with disabilities, in all honesty, scared me a little bit."

Though other participants had prior experience teaching students with disabilities, similar feelings toward the practicum and students were expressed. Allison, who indicated she had four years of experience with individuals with disabilities, shared, "When I first started, I was nervous to be around so many students with disabilities and not knowing their background." Other participants, each with one year of experience with students with disabilities, described being shy at the start of the practicum. Brad explained, "[At] the beginning of the class period when I first started going to [the practicum site], I was really quiet and didn't really know how to introduce myself to the students." Josh agreed, stating, "Towards the beginning of the practicum, we were all shy and [kept] to ourselves because we didn't know each other yet." For several participants, the practicum itself developed feelings of apprehension. Cristofer described feeling consumed on the first day, "I was a bit overwhelmed with the task." Amy agreed, adding, "I was nervous for my first practicum ever. I went to the wrong school but managed to find the right place in time."

Table 4*SRQ1 Pre-Practicum Theme 1 Summary: Feelings of Apprehension*

Theme	Codes	Phrases
Feelings of Apprehension	Nervous	<ul style="list-style-type: none"> • Nervous, never knew anyone with a disability • Nervous to engage • Nervous to be around multiple students with disabilities • Nervous, didn't know role • Nervous, first practicum
	Shy	<ul style="list-style-type: none"> • Quiet, didn't know how to introduce myself • Shy and kept to self • Shy, didn't know anyone
	Fear	<ul style="list-style-type: none"> • Scared to teach students with disabilities • Overwhelmed with the task • Cautious, didn't know how to engage or converse with students

Pre-Practicum Theme 2: Stepping into the Unknown. A second theme, *Stepping into the Unknown*, emerged from the participant data at the beginning of the embedded practicum in a modified (i.e., Unified) physical education class. Participants discussed feeling unprepared, not knowing what to expect, or how to engage with students with disabilities. The codes associated with this theme and participant phrases are summarized in Table 5.

Engaging students with disabilities seemed to be an initial concern for several participants in the study when stepping into the practicum setting. Participants described not knowing how to converse or engage with the students during the beginning of the PE class. Taylor stated, "I started out being very timid in engaging with the students. I had a hard time finding my place." Another student, Allison, shared, "When I first entered the classroom, I also didn't really know how to engage with the students." Cristofer expressed this sentiment as well, "I was a little cautious about how to engage or converse with these students." While several

participants expressed not knowing how to engage with the students initially, it was not just the participants who felt apprehensive. Cristofer continued, “the students in this unified classroom were a bit cautious with us at first.”

In addition to the unknowns during the first encounter, the participants noted uncertainty in their role, knowledge, and expectations. Carter commented, “it scared me because I just didn’t know what to expect. There were just so many what-ifs in my mind...we didn’t have much prior knowledge.” Allison agreed, “When I was on my way to school, I wasn’t sure what to expect when I got there.” Unknown expectations were additionally declared by Taylor, “Before I spent any time in the APE classroom, I thought it wasn’t [going to be] that fun, that [it] would be really hard.”

Table 5

SRQ1 Pre-Practicum Theme 2 Summary: Stepping into the Unknown

Theme	Codes	Phrases
Stepping into the Unknown	Expectations	<ul style="list-style-type: none"> • Didn’t know what to expect • Thought it would be really hard • So many what-ifs in my mind
	Unprepared	<ul style="list-style-type: none"> • New classroom, didn’t know anything about it • Didn’t have much prior knowledge
	How to Engage	<ul style="list-style-type: none"> • Didn’t know how to engage • Students were cautious of us at first • Timid in engaging with the students

Pre-Practicum Discrepant Cases: Anticipation. While data from most participants revealed feelings of apprehension to step into the unknown on the first day of the practicum, a few participants approached it with *Anticipation*. Brad exclaimed, "for the first time I really saw what I am going to be doing in the future, which is awesome to start to see how close I am to my

actual career." Jake, a participant with four years of experience teaching students with disabilities, affirmed, "I did not know what to expect before starting the practicum, but I knew I was excited."

Post-Practicum Theme 1: Valued Experience. After completing the practicum in a modified (i.e., Unified) PE class, participants reported their attitudes toward teaching students with disabilities. Data were collected from the participants' daily journals and the summary of experience report. The participants expressed feelings of joy, excitement, growth, and gratitude while describing the experience as incredible and rewarding. These feelings were themed as Valued Experience and can be contributed to changes in both attitudes and perceived competence toward teaching students with disabilities. A summary of codes with participant phrases for this theme was charted (see Table 6).

Several participants approached the end of the practicum with mixed emotions. Taylor described her final day of the practicum, sharing:

Today was bittersweet as I finished out my time in adaptive PE at [the practicum site]...I got to push [a student] in her wheelchair, hold [a student's] hand while walking, talk with [a student], and of course say hi to [a student via assistive technology] along with so much more. I am so grateful for the relationships I have been able to build during the time I have spent at [the practicum site].

This sentiment was repeated by Cristofer, who vowed to continue working with the students outside of the APE course requirements, "It was another incredible experience. I truly was upset that it was my last day...I asked to participate in their Special Olympics in the Spring and I am already looking forward to seeing these guys again!"

Many participants noted the value of the practicum as a rewarding experience. Josh stated, "This has been a very rewarding experience...and [I] am very thankful." Another participant, Carter, agreed, "...it has been such a rewarding experience." Additionally, Brad shared the joy he felt from teaching the Unified PE class, "helping with the adapted physical education class made me happy."

Several participants expressed how the practicum helped their growth as future physical educators with the responsibility of teaching students with disabilities, noting improvement in knowledge, skills, comfort, and confidence. Allison shared, "I got more comfortable as the semester went on." Another participant agreed, "I started to grow more comfortable with the atmosphere and my influence as a leader" (Taylor). To express the knowledge gained throughout the APE course and practicum, Carter declared, "This semester has taught me probably 95 percent of what I know about Adapted Physical Education." For Jake, the value of the practicum experience cemented his place in teaching:

Throughout my experience, I grew as an individual as I became more compassionate for those with disabilities. I know I am meant to teach, and it is something I am very excited about, but this experience strengthened those feelings.

Table 6*SRQ1: Post-Practicum Theme 1 Summary: Valued Experience*

Theme	Codes	Phrases
Valued Experience	Rewarding	<ul style="list-style-type: none"> • Very rewarding experience • Rewarding experience for all • So rewarding • Rewarding field with many benefits
	Gratitude	<ul style="list-style-type: none"> • Very thankful • Grateful for this experience. • Showed me how much I want to do this in future
	Growth	<ul style="list-style-type: none"> • Grew as an individual • Developed compassion • Built confidence and knowledge • Got more comfortable • Skills improved • Confidence in ability
	Excitement	<ul style="list-style-type: none"> • Incredible experience • Brought me happiness • Highlight of the day • Enjoyed getting to know students • Really happy when teaching them • Excited for the future to teach students with disabilities • Looked forward to going to practicum.

Post-Practicum Theme 2: Connection. The second theme that emerged from the post-practicum data was Connection. A connection can be defined multiple ways, but for participants in the embedded practicum, factors that contributed to developing connection were building relationships, engaging with students, seeing ability, and experiencing student success. After the practicum, these factors contributed to participants' attitudes toward teaching students with disabilities. A summary of the theme, including codes and phrases, is located in Table 7.

For many of the participants, learning how to engage with students began their journey of connection. Cristofer touted the opportunities to work directly work with the students, "[The cooperating teacher] was a great instructor and gave us plenty of opportunities to engage and learn from her students." Allison agreed, sharing:

Throughout the semester, I noticed that I wasn't as nervous to go to my practicum. I definitely changed I was more engaging with the students. I wasn't worried about what they were doing I just went in and talked to them or helped them with what they were playing. I felt more confident when one of the students needed help or just needed someone to talk to while they were walking or playing their games.

Building relationships became a natural component of connection. Several students reported the importance of relationship building with students with disabilities. Taylor stated, "I found myself becoming more invested in the relationship aspect of teaching." She continued by sharing, "I found these moments happened most authentically in the moments I spent outside the classroom with the students whether that was at bowling, the parade, or even a walk down the hall to their classroom or the bathroom."

Other students also reported listening, asking questions, showing they care about each student as attributes that helped build relationships with students in the short amount of time they spent at the practicum. Josh commented, "it was cool to see how the relationships with the students can build in such a short time." Multiple students also shared the importance of communication to build relationships and found that it can take on many formats. Carter discussed his first interaction with a student using assistive technology:

So last week I met a student, listed above and I had the most awesome interaction with them. So, there's this device they use for hearing and they have it wrapped around their

neck with a lanyard. Whoever speaks into this device can directly talk to them. They gave me his lanyard for a little bit so that I could talk to them. I just thought this was the coolest thing.

Another student, Josh, described having the same first-time communication experience with the student:

Today I learned about some of the new technology that is around to help some of these students with disabilities to communicate. He also has a tablet with different words and phrases that he can pair together to make sentences. This is his main form of communication, and it was so cool to see how well he used that tablet and how fast he could pair sentences together to talk.

Further factors that led to the theme connection, were the participants' opportunities to assist in student success and their capacity to see students' abilities. Carter shared this thought transformation upon the completion of the practicum:

I also noticed my views change on certain disabilities. I would say that I had certain assumptions about certain disabilities, none bad, but assumptions. I walked in with an opinion already, and doing this whole practicum changed my opinion completely. As a future educator, I am very excited to teach those with disabilities.

Other participants also commented on how the practicum changed their views of students with disabilities. Amy stated, "I learned from my [practicum site] students that even if you have a disability you are still able to do so many things in life." Allison echoed this sentiment:

No matter if they have a disability or not, they are able to get out and be physically active. People without disabilities need to realize that just because one has a disability it doesn't always stop them from going out and being physically active.

Additional participant statements compounded student ability. Taylor stated:

One of the biggest things I learned was that no matter who the student is, and what they are currently capable of, every student is capable of improvement and growth. I think this is so incredibly important because if we don't even believe in our students who will?

Josh agreed, noting, "I also found that these students are more like people without disabilities than we think." Another student, David, added:

The biggest thing anyone can take from an experience like this is how important it is to treat these kids like they are just as capable as any other student. They might need help or modifications but for the kids in this class there is no fail, our job is to show them they can succeed all they need to do is try.

One participant directly witnessed student abilities and success in a first-hand teaching experience. In a journal entry, Jake discussed a student success he experienced during the practicum:

I have been working with [a student]. We spent the entire hour trying to make a shot in the ten-foot basketball hoop. It was so fun to work with him because of his motivation and unwillingness to give up. He works very hard! He did not make a shot, but he never once became frustrated. However, we made progress today. He finally made the ball up over the rim! It is fun building relationships with the students and having them wanting you to come back on Monday.

The following week, Jake continued his work with the student and noted the following milestone within his journal, "[The student] finally made a shot! Seeing him make a shot was the highlight of the day. I was so happy for him because he had been working so hard to accomplish this goal!"

Table 7*SRQ1: Post-Practicum Theme 2 Summary: Connection*

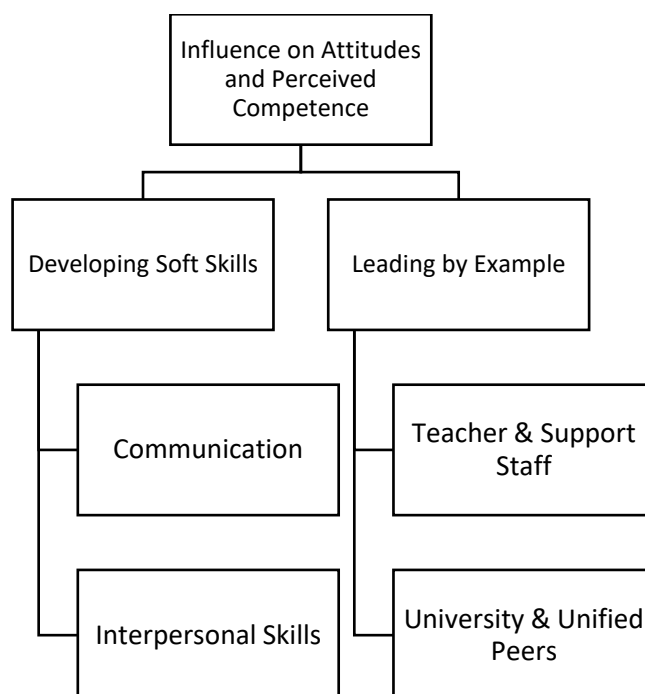
Theme	Codes	Phrases
Connection	Building Relationships	<ul style="list-style-type: none"> • I got to know them, and they got to know me • Grateful for relationships built during practicum • Building relationships in a short time • More invested in relationship aspect of teaching • Connected with students • Authentic moments outside the classroom • Learn more about them by asking questions • I listened and showed I cared
	Engaging with Students	<ul style="list-style-type: none"> • I was more engaging with the students • I stepped out of my comfort zone • Grew more comfortable • Participating versus observing was best way to engage • Enjoyed interacting with students • Changed how I engage with students
	Student Success	<ul style="list-style-type: none"> • Seeing students improve daily • Seeing student reach goal was highlight of my day • I was so happy for him. • They can succeed • Made the shot after trying for 30 minutes
	Seeing Ability	<ul style="list-style-type: none"> • Treating students the same as non-disabled peers • Having regular conversations about life • We are all human • Just like other students in our program • Having a disability doesn't stop participation in PE • Able to do so many things in life • Able to get out and be physically active • Every student is capable of improvement and growth • They seemed to come to life in the weight room • Using assistive technology to communicate together

SRQ2: Results Related to Influences of the APE Course and Practicum on Attitudes

The second sub-research question related to the guiding research question examined the influence of the introductory APE course and practicum on preservice physical educators' attitudes and perceived competence to teach students with disabilities. Qualitative data were used to provide insight to factors the participants' commented on as influential during the modified (i.e., Unified) PE class. Influence is defined as "the act or power of producing an effect without apparent exertion of force or direct exercise of command" (Merriam-Webster, n.d.-a). The participants experienced multiple influences mentioned in this section and noted them as significant with their daily journals, the summary of experience reports, and during the focus group interview. Two themes emerged from the data in relation to SRQ2, 1) Developing Soft Skills and 2) Leading by Example. A hierarchical tree diagram detailing how the themes were conceptualized for SRQ2 (see Figure 2).

Figure 2

Influence of APE Course and Practicum on Attitudes and Perceived Competence



Theme 1: Developing Soft Skills

The first emergent theme from the qualitative data sets was *Developing Soft Skills*. Soft skills are often described as non-technical skills that relate to how individuals conduct themselves in a work setting, including interacting with others, solving problems, setting goals, and managing work or people. Communication and interpersonal skills were mentioned by the participants as soft skills they either noted as significant when teaching students with disabilities or had a chance to develop throughout the practicum experience. The codes related to this theme and participant phrases are summarized in Table 8.

The participants described communication as using verbal, non-verbal, and listening skills to interact with another individual or individuals. The study participants commented on how they communicated with the students in the modified (i.e., Unified) PE class and shared the significance of using a variety of communication skills to develop their perceived competence toward teaching students with disabilities. One participant, David, discussed his engagement level with the whole class but specifically shared his daily interaction with a particular student:

I was pretty engaged in the class, there is one [student] specifically that comes up to me at least three times at the beginning of class when we are walking, and he asks my name every time. He knows my name as he has done this every class period I have been there. When I ask him what my name is his response is to point to another kid in the class who is a student helper and happens to have the same name as myself. He thinks it is absolutely hilarious and has yet to miss a day of asking me what my name is.

Other participants also discussed the impact of introductions and the power of non-verbal communication to connect with the students. Jake shared:

I made sure to introduce myself to as many students as I could the first few times that we met...If a student wanted a hug, I was sure to give them a hug...the students did not think twice to give you a hug or tell you that they were excited to see you that day.

Josh affirmed the impact of non-verbal communication, "[The cooperating teacher] always greeted you with a smile (through the mask) when you arrived. Not only did she do that for the [participants] but the students in her class." Additionally, Josh commented on the power of conversation, sharing his insight to verbal communication skills and what impact it had on the students:

The biggest thing with the students is that they just want to have normal conversations and feel that people care about them. Having regular conversations with them about life can go a long way. Even asking about their day or week and sparking a conversation that way can make some of these students' days, knowing someone cares.

Taylor agreed with Josh, also disclosing how she developed conversations with the students in the class, "I enjoyed trying to connect with different students by asking them questions, complementing their skills and attitudes, or listening to their jokes and concerns." Amy added how listening skills influenced her relationship with one student:

Every day she would have new jokes and she loved to tell them and to get an expression from the person that she was telling them to. That student is so amazing, and it not only made an impact on her that I was there listening to her, but it also made an impact on me as well.

While interpersonal skills have often included communication, additional factors have been added outside the communication parameter, including self-confidence, assertiveness, patience, empathy, positive attitude, respectfulness, and leadership skills. The participants commented on

these skills as they observed them in the practicum, particularly patience, sharing the influence they had on their attitudes toward teaching students with disabilities. As Carter noted from his observation of the cooperating teacher, "it takes a lot of patience and understanding." Josh affirmed this lesson, stating, "I have learned that patience is very important." Additionally, Cristofer confirmed this sentiment in his explanation:

The number one thing I learned about working with students with disabilities is having patience. Working with special needs students requires a strong sense of understanding and being aware of that everyone's needs are different and that each person requires their own sort of attention.

Additional participants noted the importance of respect and empathy in their approach to teaching students with disabilities. Taylor shared how being all in was the best way to interact with the students, stating:

I found that participating with the students rather than observing or half-heartedly participating was the best way to engage the students and show them that I genuinely wanted to be a part of their lives.

Other students commented on the exchange between students as their confidence and positive attitudes built during the practicum toward teaching students with disabilities. Amy shared, "not only did they [the students] seem happy that you were with them, but they seemed like they gained a new best friend. As did I." Allison also acknowledged this feeling:

I helped one with hockey today (she told me she loved me which melted my heart) I also encouraged her when she hit the pin. All in all, I feel that throughout the semester I connected with the students well as I got to know them.

Additionally, Cristofer asserted his final thoughts on the influence of the practicum toward his attitude and perceived competence, "as a teacher in this field, you'll face a variety of obstacles that require a particular kind of focus and patience, but within those experiences, you'll also receive a feeling of accomplishment."

Table 8

SRQ2: Theme 1 Summary: Developing Soft Skills

Theme	Codes	Phrases
Developing Soft Skills	Communication	<ul style="list-style-type: none"> • Hugs • Encouragement • Telling jokes • Listening • Conversations
	Interpersonal Skills	<ul style="list-style-type: none"> • Connected with students • Participating • Patience • Understanding • Relationship impact for students and for me • Showing students I genuinely wanted to be a part of their lives • Engagement

Theme 2: Leading By Example

The second theme emergent theme in sub-research question two was *Leading by Example*. The participants vocalized the impact of the leadership skills exhibited by the cooperating teacher, support staff, their university peers, and the Unified peer partners as factors that influenced their perceived competence and attitudes toward teaching students with disabilities. A summary of this theme, with codes and phrases is located in Table 9.

The participants had several comments on the leadership skills they observed from the cooperating teacher and support staff (i.e., paraprofessionals) during the practicum experience.

Amy stated, "as soon as I walked into the gym, I realized just how much of an impact [the cooperating teacher] and the paraprofessionals had on the students. They built those relationships already and the students absolutely loved and trusted them." Jake concurred, adding "because she [the cooperating teacher] has put in the work to create a great experience for her students, that positivity is transferred to the Paraprofessionals that enter the classroom." Additionally, Taylor shared her plan for following the leadership demonstrated by the staff, asserting:

[The cooperating teacher] and the paraprofessionals inspired me to be creative and flexible...Being flexible can be hard for me sometimes, but they were such great examples of that, and I hope that this lesson will reach beyond the classroom for me.

Other participants noted the skills exhibited by the cooperating teacher and the support staff, sharing the influence it had on their perceived competence. Cristofer commented on the wide variety of skills displayed by the teachers, sharing:

I learned that becoming the Jack of all trades is an essential trait to establish in this setting...On a daily basis, you may assume the roles of a teacher, a counselor, a support system, or an event coordinator. In addition to these changing jobs, you will interact with students who have a wide range of personalities and developmental struggles...And this is something [the cooperating teacher] and [the research site] paras displayed very well.

Cristofer went on to share the impact of engaging with the cooperating teacher to learn from her years of experience, noting:

Every time there was a situation as such I would personally ask [the cooperating teacher] how to handle it and understand why...She was able to provide great insights from her personal experiences. This course also helped me learn how to handle certain situations

as a teacher because I was able to watch how [the cooperating teacher] managed the classroom without being totally overwhelmed.

Several participants shared the impact of working with the cooperating teacher as inspirational to their development. Jake noted being in attendance when the cooperating teacher was honored for her teaching as an influential moment:

For another class, we have to attend a school board meeting. And I actually happened to choose the one where [the cooperating teacher] was actually recognized for her work. that just goes to show you...I mean I thought, wow that is really cool because I actually know who that is.

Correspondingly, Taylor commented how deep the influence of the cooperating teacher's leadership went within the modified (i.e., Unified) PE class, sharing:

I noticed so many of the students in the Unified class, I think at least three of them told me that they want to have [the cooperating teacher's] job someday, like that's what they want to go to school for, because of [the cooperating teacher]. And I just thought that was pretty impactful, like that's kind of all these kids' experiences, that is what they want to be like.

In addition to the cooperating teacher and support staff, many participants felt their university peers were influential to their development toward teaching students with disabilities. Carter stated, "I also learned a lot from my [university] peers." Allison agreed and shared this reflection:

I learned from my peers to step out of my comfort zone. [Amy] was very good at that. She walked in everyday and just talked to the students. Once I noticed her doing it I also did it. I got more comfortable with it as the semester went on.

One unexpected result the participants spoke of as influential to their attitudes toward teaching APE was the Unified peer partners. Carter reflected, "What surprised me the most were the [peer partners]. They were just students from the high school, and I honestly thought that they wouldn't do a lot. However, [they] were probably the most helpful people in the room." Taylor echoed these thoughts and shared how the peer partners influenced her:

The general education students in the unified class were a big inspiration to me. The conversations I had with them revealed a passion that I know did not exist in me when I was their age. The lesson I learned from those students is that we are never too young, or too old, to start being passionate about something and making a difference. The love and tenderness these students demonstrate to the special education students in their class is something that I admire and strive to become like.

Several participants focused on the Unified peer partners' example as inspirational. David explained:

The students really helped me understand how the general population feels about the APE population and why it is important to advocate for them. They proved that there is still hope in the world and those who will stand for them even when they can't stand for themselves sometimes literally.

In an exchange during the focus group interview, Jake reminisced on the impact of the Unified peer partners on his practicum experience, sharing:

I mean, it was just really fantastic to see willingness of those students in that class to be such a helping hand. You know, it just made the whole...going back to that whole environment thing... just this positive, learning experience. I mean it was just really cool

and I was honestly kind of surprised, at the high school level, the willingness of those other students to just to be there for each other.

David concurred, explaining how the peer partners' example during the practicum was unlike anything he had previously experienced, noting:

I totally agree with [Jake], seeing those students in that class...my experience in high school didn't really look like that, from my perspective, there was a lot of students that weren't really understanding and kind of rude towards those students with disabilities. And so, to go into this high school classroom and see all those kids help out in the way that they did...it was amazing to see.

Table 9

SRQ2: Theme 2 Summary: Leading By Example

Theme	Codes	Phrases
Leading By Example	Teacher & Support Staff	<ul style="list-style-type: none"> • Greeted with a smile • Positivity transfer • Playful and cheerful • Jack of all trades • Sharing personal experiences • Inspired to be creative and flexible • Developed relationships • Recognized by school board for work
	University & Unified Peers	<ul style="list-style-type: none"> • Step out of comfort zone • Learned a lot • Hope in the world • Most helpful people in the room • Surprised and inspired by peer partners • Peer partners were different from my high school experience

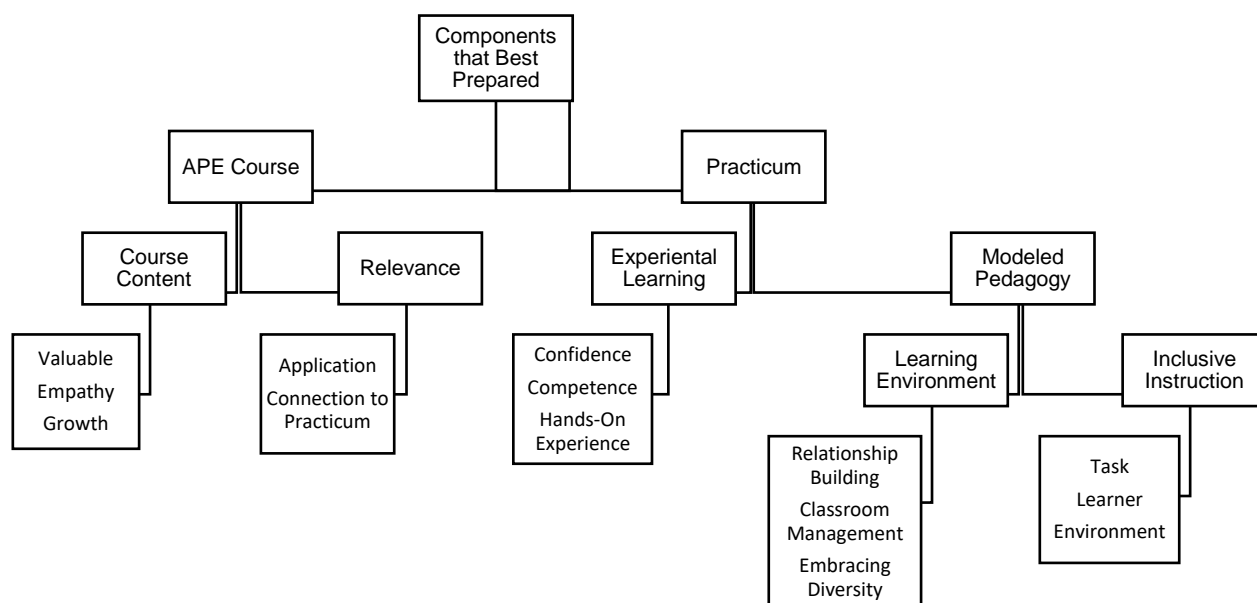
SRQ3: Results Related to Components That Best Prepared Preservice Physical Educators

The third sub-research question related to the guiding research question explored which components of the introductory APE course and practicum best prepared the preservice physical educator for teaching students with disabilities. Participants were asked to comment on the APE course and practicum components that prepared them to teach students with disabilities (see Appendix E). Participants were also asked to elaborate on these thoughts during the semi-structured focus group interview (see Appendix D). These two qualitative data sets were utilized to determine what the participants thought best prepared them to teach students with disabilities.

Themes were identified under the following prefigured categories: 1) APE course and 2) Practicum. The APE Course category had one prefigured theme, Course Content, but another theme, Relevance, emerged as significant. The Practicum category yielded two emergent themes, 1) Experiential Learning and 2) Modeled Pedagogy. Additionally, two sub-themes emerged from Modeled Pedagogy, 1) Learning Environment and 2) Inclusive Instruction (see Figure 3).

Figure 3

APE Course Components that Best Prepared Participants to Teach Students with Disabilities



APE Course

The study participants experienced a hybrid learning modality during the introductory APE course. They attended the practicum at regularly scheduled times, in person, at the research site. However, the course content was taught completely asynchronously in an online format. Online course content included 1) presentations, 2) case studies, 3) discussions, 4) reflections on the documentary *Crip Camp: A Disability Revolution* (LeBrecht & Newnham, 2020), 5) readings, 6) exams, and 7) lesson planning. Results from the participants on how the introductory APE course prepared them to teach students with disabilities yielded two themes, 1) Course Content and 2) Relevance.

Theme 1: Course Content. In this prefigured theme, the participants described the Course Content as valuable, helpful in developing empathy, and essential in the growth of knowledge and preparedness. A summary of the theme, codes, and participant phrases can be found in Table 10.

For some participants, the course content was deemed valuable, offering insight into various disability diagnoses and how to meet individuals' unique needs. Amy stated, "Another reason why this course helped me understand students with disabilities was learning about all the different kinds of disabilities that students have." Carter affirmed, "I would say that the course content prepared me very well. There were a lot of different aspects of disabilities that I had never heard of before started this class. It helped me with actually understanding." Another student, Taylor, agreed and added further connection as to how the course material prepared her as a future physical educator:

The content we covered like practicing writing lessons, case studies, the *Crip Camp* movie, and the disability presentations also were valuable material to me. I think the

content we covered gives me a starting point to understanding where we need to come from as teachers of those with not only different abilities and disabilities, but just different backgrounds and life experiences in general.

Additional participants discussed how the course content incited feelings of empathy toward individuals with disabilities. After viewing *Crip Camp: A Disability Revolution* (LeBrecht & Newnham, 2020), Carter noted his thoughts:

Something I would like to talk about was the “Crip Camp” documentary. Watching this documentary really made me feel something that I hadn’t thought about before. We never really look at disabilities and think that someone with one, could be treated so poorly.

The course content prepared me in a way to be more understanding and patient with those who have disabilities.

David concurred, “The course content was helpful in giving insight into why things happen and a deeper understanding of thinking processes. To understand your students through and through is the key to teaching in a successful classroom.”

In addition to finding the course content valuable, both in developing preparedness and empathy, the participants also commented on the growth they experienced in knowledge and skill. Cristofer noted feeling prepared to adapt his teaching to meet student needs:

This class prepared me by helping me understand more from how I can adapt to each student’s needs. Before learning about what special education students can do, I assumed their activities were limited due to their needs but as I learned from this course, there was plenty of ideas and activities these students had. I was able to take the knowledge from these activities to be able to apply them to my future classroom.

Amy also commented on her development due to the course content, stating, “doing case studies, presentations, discussions, lesson planning, and reading through the chapters helped me grow and understand so much more about students with disabilities and how to be able to teach them.”

Table 10

SRQ3: APE Course: Theme 1 Summary: Course Content

Theme	Codes	Phrases
Course Content	Valuable	<ul style="list-style-type: none"> • The content covered was valuable material to me • Content was helpful and insightful
	Empathy	<ul style="list-style-type: none"> • Didn't think someone with a disability could be treated so poorly • Prepared me to be more understanding and patient • Watching the documentary made me feel something I hadn't before • Content gave me a starting point of understanding where we need to come from as teachers
	Growth	<ul style="list-style-type: none"> • Content helped me grow • Understand so much more about students with disabilities • Knowledge of activities can be applied to future classroom • Content is what is needed to be fully prepared to teach students with disabilities. • Content prepared me very well.

Theme 2: Relevance. The second theme, *Relevance*, emerged from the sub-research question of how the APE course prepared the participants to teach students with disabilities. Many participants noted the connection between the course content and real-life experiences. The relevance of the APE course allowed participants to take the content knowledge and apply it during the practicum and in their foreseeable futures. The codes related to this theme and participant phrases are summarized in Table 11.

Several participants spoke about how the APE course could apply to their preparedness as future physical educators, noting the relevance to real-life situations. One participant, David, made this connection stating, “The content gave us a good understanding of those students and cases we will be most likely faced with as future professionals and gave us an understanding of how we can deal with them.” Another participant, Carter, concurred, “It wasn’t a “hey here’s the info, now do this homework”, it was more of “hey here’s this info, now apply it in a real-life situation.” Taylor, a participant with previous APE course experience, agreed, stating:

I liked how everything we covered was very applicable to real life teaching and gave us perspective on what kinds of things students in our classes might be struggling with. I was glad we covered some heavy content because that content is what will be needed to be fully prepared to teach students in the future.

In addition, many students also commented on the connection between the APE course and the practicum. Amy stated, “I think it is so important to have all these assignments and of course practicum because this is the only way to really dive into and learn what you need to know to be a successful teacher and peer.” Carter also commented on the direct association between the APE course and the practicum, voicing, “You did a great job of connecting the course content to the actual practicum.”

Table 11*SRQ3: APE Course: Theme 2 Summary: Relevance*

Theme	Codes	Phrases
Relevance	Application	<ul style="list-style-type: none"> • Everything we covered was applicable to real-life teaching • Apply it in a real-life situation • Heavy content prepares to teach in future. • Content gave good understanding of students we will encounter as future professionals
	Connection to Practicum	<ul style="list-style-type: none"> • Important to have assignments and practicum • Connection of course content to actual practicum.

Practicum

The participants noted the *practicum* as the most critical component of the introductory APE course, as proclaimed by Amy, "The number one way that this course helped me was practicum." David mirrored the statement, sharing, "If I didn't have practicum experience, I wouldn't know what to do." Carter also asserted, "[The] practicum has become a class that I really look forward to." Results from the qualitative data on how the practicum prepared the participants to teach students with disabilities yielded two themes, 1) Experiential Learning and 2) Modeled Pedagogy. Additionally, two sub-themes emerged from modeled pedagogy, 1) Developing a Learning Environment and 2) Inclusive Instruction.

Theme 1: Experiential Learning. The first theme that emerged from the participants' perceptions of how the embedded practicum prepared them to teach students with disabilities, was Experiential Learning. Factors that assisted in developing this theme included hands-on experience, developed confidence, and perceived competence. A summary of this theme, with codes and participant phrases, can be found in Table 12.

The hands-on experience was touted as the most crucial element during the practicum for participants, regarding their preparedness to teach students with disabilities. The setting allowed participants to learn while working alongside the students. Cristofer commented:

This course gave me the opportunity to work closely with special education students in an actual school setting to truly experience the life of a special physical educator. This is an experience you cannot replicate outside this kind of classroom.

Jake agreed with this sentiment during the focus group interview, stating:

I think anytime that you're able to actually go into the profession and actually observe and work hands-on, I mean I feel like that's going to prepare you, no matter what, whether that be good or bad, I mean you're going to learn.

Further comments were made about how the hands-on training allowed the participants to build relationships and deepen their understanding of students with disabilities. In addition to sharing how the hands-on experience helped her gain knowledge, Amy discussed how being hands-on helped her to develop rapport with the students, "Having hands-on experience and being able to build relationships with the students was amazing. It not only helped me genuinely [sic] about students with disabilities but helped me understand and be able to teach students with disabilities." Jake confirmed:

I think it was great to be able to experience it hands-on because unfortunately there's a lot of negative that comes towards working with students with disabilities, that you hear from other people, and that can be exhausting so it's nice to actually see for yourself.

Two additional factors within the experiential learning theme that participants noted developing during the practicum were confidence and competence. Several participants commented that learning in a real-life situation gave them the conviction they needed to teach students with

disabilities. Taylor noted, "The hands-on experience gave me so much more confidence in my skills as a teacher in an adaptive physical education classroom." David also stated, "My biggest change was my comfort level in teaching a mixed population of "gen-ed" and "APE" students." Allison agreed, adding how the practicum changed her assurance, "I got more comfortable as the semester went on...I felt more confident when one of the students needed help." Brad concurred that feeling comfortable improved his confidence, sharing, "I really made the change of being able to be comfortable with teaching in front of students and giving them the best teacher they can have in the physical education class." Participants also shared how an increase in knowledge changed their perception of competence. Allison noted, "My skills improved throughout the semester." Amy affirmed and added, "gaining knowledge and being hands-on was so important." Carter projected his perceived competence, proclaiming:

I am more knowledgeable about Adapted Physical Education. I am a strong believer that knowledge is power and in order to advocate for something you have to have knowledge about that subject...if I can share the knowledge I have now, I think that it will be beneficial for anyone. I think a lot of bad opinions about disabilities still from not knowing enough about them and teaching them can hopefully slow down these bad opinions. Becoming an advocate for Adapted Physical Education will be what I strive for, for the rest of my professional career.

Table 12

SRQ3: Practicum: Theme 1 Summary: Experiential Learning

Theme	Codes	Phrases
Experiential Learning	Perceived Competence	<ul style="list-style-type: none"> • Gaining knowledge • My skills improved throughout the semester • Advocacy
	Developed Confidence	<ul style="list-style-type: none"> • Gave me more confidence in my skills • Felt more confident when students needed help • More comfortable
	Hands-On Experience	<ul style="list-style-type: none"> • Experience in profession helps to grow as teacher • Course content prepared me to be hands-on • Having hands-on experience to build relationships • More experience better advocacy for students with disabilities • Hands-on is so important

Theme 2: Modeled Pedagogy. The second emergent theme for how participants in the study felt the practicum prepared them to teach students with disabilities was Modeled Pedagogy. The participants' discussed several modeled inclusive teaching strategies that transformed their perceived preparedness and competence toward teaching students with disabilities. Jake commented, "It helped having a teacher like [the cooperating teacher] leading the class." Taylor reaffirmed the comment, stating, "[The cooperating teacher's] mentorship was a big part of the reason why I feel so much more prepared in this area." Dialogue on mentorship and role modeling produced two sub-themes within modeled pedagogy, 1) Developing a Learning Environment and 2) Inclusive Instruction.

Sub-Theme 1: Learning Environment. Developing a *Learning Environment* emerged as a sub-theme of modeled pedagogy. Creating an inviting and safe learning environment for all

students with varied backgrounds, learning styles, abilities, and assets is a component of inclusive pedagogy. Participants indicated relationship building, classroom management, and embracing diversity as factors that led to an inclusive learning environment. These codes associated with the sub-theme and participant phrases are summarized in Table 13.

The participants noted relationship building as a way to create a safe, inclusive learning environment modeled by the cooperating teacher and paraprofessional staff members. Jake shared:

[The cooperating teacher] has done a great job creating a positive environment for her classroom...I also learned that it is important to not only build relationships with your students but with their paras as well. Everyone is working towards the same goal and that is to provide that student with the best opportunity to learn. To build that relationship, there needs to be communication.

Another participant, Josh, agreed with this conclusion, "It's also great to see all the staff working so well with the students and the bond they have formed with them so that the students are comfortable around them." Further, participants discussed building relationships with the students to develop inclusive learning environments. As David noted:

To understand your students through and through is the key to teaching in a successful classroom. The only way you will be able to get through to your kids and gain respect is to know where they are coming from and how their thinking works.

Another participant, Amy, relayed how the cooperating teacher modeled the student-teacher relationship, "It is crucial to build relationships with your students. [The cooperating teacher] did a great job by building relationships with students and I could tell the first day that I walked in the gym that these students feel comfortable and safe." Taylor reiterated this statement, adding

"The relationship aspect is key in providing an emotionally safe and healthy learning environment."

Further, several of the study's participants acknowledged the significance of classroom management as a means to develop a safe and positive class climate. Factors like routine, behavior management, and communication were role modeled in the practicum and noted by the participants. Taylor confirmed the value of practical experience in behavior management, stating:

I feel like we can talk about different behaviors and stuff all the time, as much as we want in class, but you really don't know what to do or how different responses are going to change the way kids are acting until you're actually in the classroom and it happens.

Cristofer agreed, sharing that he felt equipped to handle maladaptive behaviors in his future class because of the modeled classroom management pedagogy by the cooperating teacher. He commented, "I feel comfortable attempting to handle them the same way we did in our practicum class because it seemed more than reasonable and effective."

Many participants also described the cooperating teacher's routine for the students as a modeled classroom management strategy. A few weeks into the practicum, Josh picked up on the sequence, declaring, "I can start to notice patterns and routines. Every day we start with a 3–5-minute walk around the gym as a warmup. We then do stretches that the students lead." Amy also shared her classroom management experiences, stating:

The students did their normal routine of walking around the gym and doing their stretches. I think [the cooperating teacher] having daily routines for these students is really important and I think it helps the students a lot knowing that it is a safe place and that students are welcome.

Further, Amy added the impact of this modeled classroom management strategy on the students, noting, "These students depend on you and depend on your routines and effectiveness. [The cooperating teacher] and the paraprofessionals taught me so much and they really are so great for those students."

In addition to relationship building and classroom management, embracing diversity was modeled by the cooperating teacher and recognized by the participants as an essential factor in building a positive learning environment. By accepting the students' unique strengths and needs, the cooperating teacher was able to demonstrate this inclusive practice to the participants.

Allison journaled about her experience, stating:

This lady is truly amazing. She works very well with these students, and you can tell that all of them love her. She treats all the kids with respect no matter what their disability is.

She is very patient with all of them, and I can tell that she really enjoys what she is doing.

David discussed an encounter he had with a student, sharing, "He said on his talking device 'I am happy because I am in school.' I just think that speaks absolute volumes about what [the cooperating teacher] does over at the school." Taylor commented on the perspective she gained from the practicum:

I gained a deeper understanding of what students with disabilities experience in the school system. I think that any opportunity to gain perspective on the world and lives around us is a deep growing experience and this was certainly one of those.

Table 13

SRQ3: Practicum: Theme 2: Sub-Theme 1 Summary: Learning Environment

Theme	Sub-Theme	Codes	Phrases
Modeled Pedagogy	Developing a Learning Environment	Relationship Building	<ul style="list-style-type: none"> • Creating positivity • Great experience for students • Communication • Knowing your students • Gaining respect • Key to emotional safety
		Classroom Management	<ul style="list-style-type: none"> • Depending on routines and effectiveness • Students depend on you • Managing behaviors
		Embracing Diversity	<ul style="list-style-type: none"> • Inspired me to be creative • In tune with student need • Making a difference • Perspective on the world • Deep growing experience • Treated with respect

Sub-Theme 2: Inclusive Instruction. Inclusive Instruction was deemed the second sub-theme of modeled pedagogy. There are multiple strategies a teacher can take to create inclusive instruction. This study's participants commented on the cooperating teacher's modeling of adaptations and modification to the task, learner, and environment as factors that best prepared them to teach students with disabilities. The sub-theme, along with codes and participant phrases, are summarized in Table 14.

Modifications to the task can involve changes to the activity, rules, purpose of the game, field of play, or motor skills. Several participants reflected on their observations of these modifications that were modeled during their practicum. Allison shared how she thought this

would prepare her to teach students with disabilities, "It will help me in the future because I know now how I can modify certain games." Taylor concurred, stating, "I started to automatically think of ways to adapt certain games or activities to make them more inclusive to different types of students and learners." Additionally, David confirmed, "I was a little unsure of how to modify some activities and teach different skills, however after this class, I am confident I could do something very similar at my future school."

Some of the participants mentioned specific tasks they either observed or modified during the embedded practicum. David shared about a modified game of floor hockey, where the class focused on more than just the game:

Today we played floor hockey and we had to really focus on the social aspect of it, we played games right away but in those we had to be mindful of passing to each other as some really struggled with it, and we also had to modify goals and rules so that it was harder for some and easier for others. We also didn't keep score but focused on passing and how to communicate with it being loud. Student helpers were great with holding some back and helping others to have a chance at scoring and playing the game.

Additionally, Taylor shared her experience of applying task modification for shooting a basket, stating:

I worked with [a student]. It was so fascinating to see the progression and her confidence grow throughout the day. We started off with a volleyball and the hoop low on the bleachers. We progressed next to moving the hoop higher. Then we switched to a basketball and finally moved the hoop even higher. She did the best when I demonstrated the cues for her while I reminded her of them, and she would copy my position and then shoot. She loved it when we took a break to shoot, and I gave her small dribbling tasks to

show me. She really seemed to enjoy any praise or positive affirmations and needed encouragement to progress. Overall, it was one of my favorite days so far this year in the class.

Participants also noted observing various inclusive teaching strategies based on the learner's unique needs. The cooperating teacher modeled modifications or adaptations based on the learners' strengths, needs, learning style, assets, interests, and prior knowledge. Josh commented on this observation, sharing:

Each student learns differently, and that goes for adaptive or regular students. I learned that finding these learning styles early will help me understand the best way to reach that student and make them successful. I also learned how to adjust my thought process and teaching style based on the student I was working with and what disability they had. As I worked with different students, I learned what teaching style I needed to use and what pace to go at to best fit their individual needs.

Amy agreed, stating, "I also learned that you always have to be engaged and focused on each individual. Every student is so different and needs different things from the teacher or helpers."

Cristofer concurred:

These differences rely on the awareness and compassion of someone who can appreciate the individual paths that lead someone to a better future, and more importantly, that person must have the strength to honor the rarity that each student has to offer to the classroom.

In addition to modeled modifications for the learner and task, participants valued changes made to the environment. Modifications and adaptations to the environment included changes to equipment, space, lighting, noise, assistive technology, and field of play. Most participants

commented on how the cooperating teacher modified the equipment to be inclusive to all learners. Taylor described an equipment modification she observed, stating, "[The cooperating teacher] had set up hoops of different heights around the gym—low floor baskets, regular height baskets, and hula hoops wedged between the bleachers at different heights for another level of challenge." David confirmed these modifications, "The students all chose their comfort level of shooting with three options, a hula-hoop in the bleachers, a basket on the ground or a normal basketball hoop." Jake added, "I thought that was a great addition to the classroom. There were also balls of all different weights and sizes."

Another modeled equipment modification for volleyball was noted by Brad, who shared, "We didn't use normal volleyball, but we used big balloons that we [put] in this super cool cape that help the balloon stay aloft when it was getting hit." Several students also commented on the impact of modifications to badminton equipment. Taylor stated:

Today during class, we used pool noodles and balloons to work on skills that meet the standards involving using an object to hit a ball. Since we normally don't do these things, I was glad I got to see how [the cooperating teacher] made modifications to the equipment and games so that everyone was able to participate. We started off by simply hitting the balloon around and advanced to facing another group and hitting our balloons back and forth across the "net" which was simply the line on the floor. The students grew in their confidence throughout the activity, and they were encouraged by their progress. David also commented on the badminton modifications and the general impact of experiencing modeled inclusive instruction during the practicum, sharing:

I feel like it gave us a good example of how to modify and adapt different activities. I have never even thought of using pool noodles for badminton. That was completely new

to me, same with the balloon. I wouldn't have known where to start with the whole badminton...and stuff like that, so it just kind of gave me some more ideas of things I can use in the future.

Taylor made a closing remark on the impact of the introductory APE course on her preparation to teach students with disabilities, asserting "I would say that these two areas, automatic adaptations in my toolbox, and the attitude towards relationships in the classroom have been my two biggest pieces of growth from my experience in PE452 this semester."

Table 14

SRQ3: Practicum: Theme 2: Sub-Theme 2 Summary: Inclusive Instruction

Theme	Sub-Theme	Codes	Phrases
Modeled Pedagogy	Inclusive Instruction	Task	<ul style="list-style-type: none"> • Students chose their comfort level of shooting with three options • I now can modify certain games • Make modifications to lesson plans • Modifications that work and what didn't work • Teach different skills • Modify activities
		Learner	<ul style="list-style-type: none"> • Each student learns differently • Understanding learning styles will help me reach student • Adapted activities for learners' needs • Change plans based on student need • Learning styles to motivate students • Each student is unique
		Environment	<ul style="list-style-type: none"> • Pool noodles, balloons for badminton • Create equitable experiences • Require extra tools • Modify on the fly • Modifications to equipment • "Net" was line on the floor • Hoops at different heights

Discrepant Cases: Fun Friday. Although all participants commented on the impact of the practicum, not all were able to reach the same level of practical hands-on training. As one student noted, "I know [the cooperating teacher] had some classes that required a lot more hands-on work from the teacher, so I wish I could have been able to experience that as well" (Jake).

Josh commented further about the class agenda on Fridays, sharing:

I found out that since I am going on Fridays, it will always be a free day for the students. This is good and bad at the same time. It is bad because I won't really learn much about lesson planning and how to do that, but it is good because the students will always be in a good mood, knowing that they get to do what they want.

An additional student, Carter, concurred, "My role hasn't really changed, I think somewhat because Fridays are game day so much doesn't change." Jake doubled down during the focus group interview after hearing the other participants share their experiences of modeled pedagogy.

He commented on missing out on the modifications, stating:

I was Friday, so I had Free Day every week. So that's the part where I'm like, that would have kind of been nice to be able to see how it went on those other days. I got to see a few of those adaptations and stuff like that, but you know they had their choices...which is fine and great and they all did really well and they enjoy it, and they stick to it the entire time they're there. But yeah, that was something that would have been nice to see.

SRQ4: Results Related to Personal and Professional Development

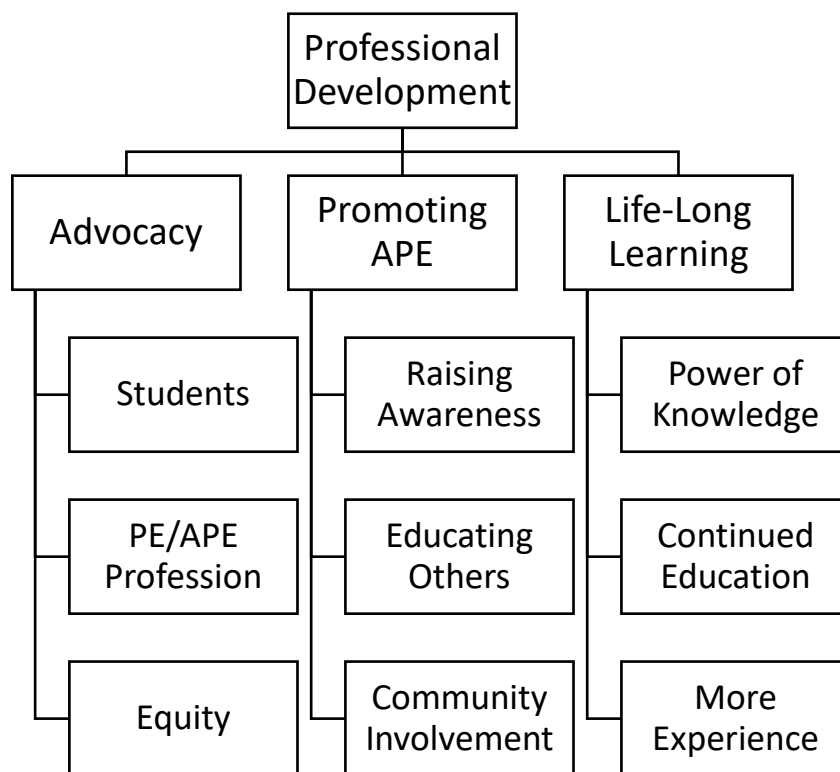
The final sub-research question related to the overarching research question examined how the practicum experience was relevant to the participant's personal and professional growth. In the prompts for the summary of experience report, participants were asked to discuss how they

can advocate for APE in the future (see Appendix E). The focus group was also asked to expand these thoughts during the semi-structured interview (see Appendix D).

Three themes were identified for this sub-research question 1) Advocacy, 2) Promoting APE, and 3) Life-Long Learning. The first theme, Advocacy, was prefigured as it was a direct prompt asked in the summary of experience report. The two additional themes emerged from the data as the participants commented on their personal and professional development (see Figure 4).

Figure 4

Personal and Professional Development



Theme 1: Advocacy

Advocacy was a prefigured theme for sub-research question four (i.e., SRQ4).

Participants were asked to reflect on becoming better advocates for APE. Data showed the

participants felt championing for the students, the profession, and equity were essential factors in their perceived advocacy. A summary of the theme, codes, and phrases is located in Table 15.

Several participants felt advocating for the students was the best way to support APE. As a future physical educator, David described his plans: "My purpose is to enable students to reach their goals no matter what it is and how impossible it may seem." Allison concurred, sharing her thoughts on positivity as a way to advocate for students with disabilities, stating, "I think I could become a better advocate just by expressing to people that just because you may have a disability big or small you can still do what you put your mind to." David added:

Sometimes these kids don't realize what they are actually capable of because society has shut them down or says no don't do that you could hurt yourself. In reality, all they need is some adaptations and they can do the same things that we can, It just might look a bit different or require extra tools.

Other participants commented on the introductory APE class as a platform to advocate for students with disabilities within their future profession. Allison shared:

After being in this Adapted Physical Education class I think it changed the way I see physical education. I feel that I can be a better advocate and voice to people that everyone, no matter if they have a disability or not, they are able to get out and be physically active.

Carter affirmed this sentiment, "Becoming an advocate for Adapted Physical Education will be what I strive for, for the rest of my professional career." Taylor explained, "If every student that took this class decided to advocate in some way for Adapted Physical Education, it would be a powerful movement."

Other participants noted a way to advocate for students with disabilities was to provide equity to all students. Jake explained his thoughts on this matter:

To provide equitable experiences to all it is important to place emphasis on Adapted Physical Education. It gives students the opportunity to thrive in a least constrictive environment. This will be the place they learn best and will feel a sense of belonging. Students have a right to an education, and we need to do everything we can to provide them with the best possible experience.

Additionally, Brad shared his perspective on how schools are providing more options for students with disabilities as a way forward in APE, stating, "The school districts around the US are getting better at making sure the students that have disabilities have a safe space that they can be themselves. I think adaptive physical education is their space that they can be themselves."

Table 15

SRQ4: Theme 1 Summary: Advocacy

Theme	Codes	Phrases
Advocacy	Students	<ul style="list-style-type: none"> • Even with a disability, you can do what you put your mind to • Right to an education and best possible experience
	PE/APE Profession	<ul style="list-style-type: none"> • Changed the way I see PE • Everyone should take this class, it would be a powerful movement • I will strive to be an advocate for the rest of my career
	Equity	<ul style="list-style-type: none"> • Everyone is able to be active • Provide equitable experiences for all • Least Restrictive Environment (LRE) • School districts are getting better

Theme 2: Promoting APE

One of the two emergent themes for SRQ4 was *Promoting APE*. Participants commented on sharing their passions for APE with others as future professionals, and included raising awareness, educating others, and community involvement as strategies to advance APE as professionals. This theme, along with codes and phrases, was summarized in Table 16.

Several participants felt raising others' awareness would be the best way to promote APE as future professionals. Taylor asserted:

Every chance I get I tell people that I am getting certified in adaptive physical education. It is something that I am excited about and proud of and it often seems that many people don't know much about it which gives me the opportunity to explain some of the neat experiences I have had with APE thus far.

She went on to share her thoughts on how she could reach a broad audience with her message, explaining she can raise awareness:

By utilizing social media. That is such a powerful tool that is literally always in my pocket. Raising awareness for the kinds of services that are offered and the ones that should be offered would be so easy to do with a simple post.

Several students shared the importance of educating others about students with disabilities to promote APE. Jake shared, "All of this starts by educating others (administration, coworkers, students, parents, community). Physical Education is so important for all individuals and has been shown to have so many benefits." Carter concurred, hoping that through educating others, some stigmas about students with disabilities could be improved, stating:

I am going to teach others about disabilities. Again, knowledge is what it is all about. If I can share the knowledge I have now, I think that it will be beneficial for anyone. I think a

lot of bad opinions about disabilities still from not knowing enough about them and teaching them can hopefully slow down these bad opinions.

To further the point, Jake argued that educating others includes individuals in the PE profession as well, asserting "All PE teachers should be certified, or even licensed; that should be required for them to have this knowledge and training."

Other participants focused on community involvement as a way to promote APE. Participants noted their ideas for spreading APE into the community and how they could lead the efforts. Allison, a participant from a small rural community, shared, "I could start Special Olympics for the students that don't get the attention they need in a small community." Brad agreed, sharing some of the ways he could continue his involvement in the community:

I want to find things that involve students or adults that have disabilities and doing activities with them. Like one of the things that comes to my mind is the bowling thing that the [research site] team did for the students in the adaptive class. Just becoming more involved is always a good thing for going into this profession.

Table 16*SRQ4: Theme 2 Summary: Promoting APE*

Theme	Codes	Phrases
Promoting APE	Raising Awareness	<ul style="list-style-type: none"> • Utilizing social media • Raise awareness for services offered • I'm going to tell people about APE
	Educating Others	<ul style="list-style-type: none"> • Many people don't know about it • I'm going to explain some of the neat experiences I have had in APE. • It starts with educating others • I'm going to teach others about disabilities. • All PE teachers should be required to have this training.
	Community Involvement	<ul style="list-style-type: none"> • I could start a Special Olympics in my town • Be more involved • Find things that include students or adults and do those activities with them

Theme 3: Life-Long Learning

The third theme for this sub-research question also emerged from the data, *Life-Long Learning*. The participants explained the power of knowledge, how they could continue their education and the importance of gaining more experience teaching students with disabilities as methods for professional development. A summary of this theme, with codes and phrases, is located in Table 17.

Some of the participants commented on the importance of knowledge. Knowledge, as they explained, is believed to be the key to professional development in APE. Carter defined how he feels about his competency in APE, stating, "I am more knowledgeable about Adapted Physical Education. I am a strong believer that knowledge is power and in order to advocate for something you have to have knowledge about that subject." Cristofer shared this opinion,

explaining his thoughts on knowledge to "learn as much as I can about the different special needs. Having the knowledge can help me explain to others how truly prestigious it is to be able to work with unique children and make a difference in their lives."

In addition to the power of knowledge, participants explained the value of continuing their education and gaining additional experience in the field as impactful toward their professional development. Cristofer detailed the importance of finding new ways to engage his students, sharing:

As a future teacher, I will be challenged to discover the specific interventions that will fulfill the needs of students. Figuring out what each student needs is like having a new puzzle to solve every single day and figuring out those puzzles will develop resilience.

David agreed, commenting on his life-long learning vision, stating "My main goal for my career is to find new ways all the time to include the APE students in new activities they didn't think they could be a part of." Additional participants conveyed the impact of more experience in the field as a method for life-long learning in APE. Amy combined the two, disclosing her plans of "learning more and becoming educated in adapted physical education...gaining more experience with students with disabilities." Taylor, the only participant with prior APE course experience concurred, "I would love to continue to spend time in these kinds of settings."

Table 17*SRQ4: Theme 3 Summary: Life-Long Learning*

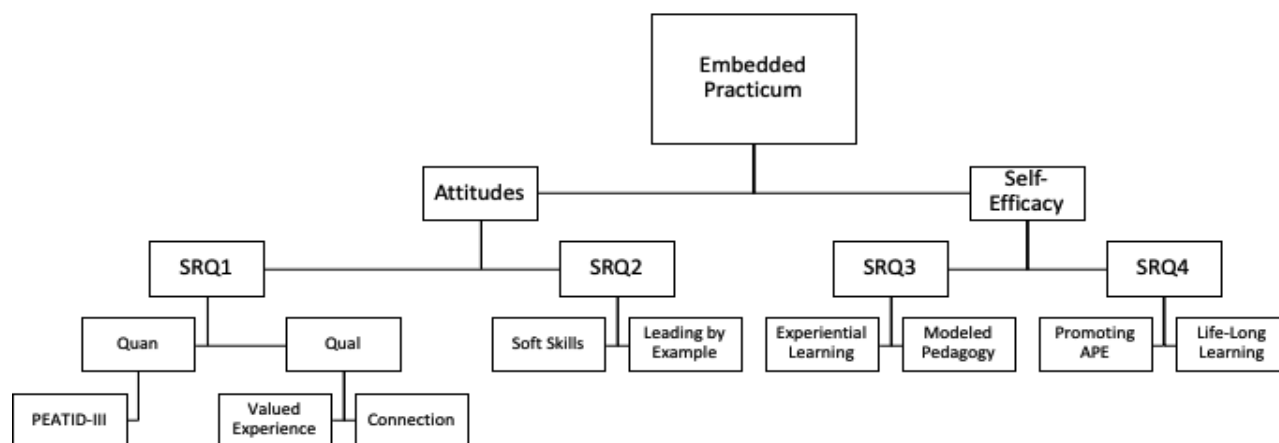
Theme	Codes	Phrases
Life-Long Learning	Power of Knowledge	<ul style="list-style-type: none"> • I am more knowledgeable about APE • Knowledge is power • Knowledge can help me explain
	Continued Education	<ul style="list-style-type: none"> • My main goal is to find new ways to include APE students • Discover interventions that fulfill the needs of students • Learning more and being educated in APE
	More Experience	<ul style="list-style-type: none"> • Gaining more experience with students with disabilities • I'd love to spend more time in APE settings

RQ: Summary of the Practicum's Effects on Attitudes and Perceived Self-Efficacy

The overarching research question in this study attempted to explain what effect an embedded practicum in a modified physical education class had on the attitudes and perceived self-efficacy of preservice physical educators toward teaching students with disabilities in an inclusive general physical education (i.e., GenPE) setting. The four sub-research questions in this study were developed to provide deeper explanations to this guiding question. Two sub-research questions (i.e., SRQ1, SRQ2) provided a rationale for the practicum's effect on the participants' attitudes, while two sub-research questions (i.e., SRQ3, SRQ4) showed the significance of the practicum experience on developing self-efficacy. The alignment of the quantitative data (i.e., PEATID-III) (Rizzo, 1993) and qualitative data (i.e., thematic analysis) for each sub-research question and how it relates to the guiding research question can be viewed in Figure 5.

Figure 5

RQ: Summary of Sub-Research Questions



Note. APE = adapted physical education, Quan = quantitative data, Qual = qualitative data, PEATID-III = Physical Educators' Attitudes toward Teaching Individuals with Disabilities survey (Rizzo, 1993).

Attitudes

Attitude can play a significant role in determining one's intentions and actions. Ajzen (1991) established the theory of planned behavior to explain how attitude could influence an individual's intention, willingness, and effort to perform a behavior. This study explored if an embedded practicum would significantly change preservice physical educators' attitudes toward teaching students with disabilities. In addition to the quantitative results from the PEATID-III (Rizzo, 1993) survey, which indicated an increase in attitudinal mean scores, two sub-research

questions (i.e., SRQ1, SRQ2) provided a detailed explanation of the participants' attitudes after completing a practicum in a modified (i.e., Unified) PE class.

Within SRQ1, the quantitative results from the PEATID-III (Rizzo, 1993) survey indicated a change in participants' attitudinal and perceived competence scores after the completed practicum. Additionally, thematic analysis from the qualitative data revealed that the participants valued their experience while expressing the significance of connection as a change agent toward teaching students with disabilities. Taylor discussed how she valued her time in the practicum, explaining, "It is so rewarding, and I am truly grateful for the experience." Other participants described how the practicum changed the way they saw their role as physical educators. As Brad stated, "I can't wait for the day that I get to do this every single day and get to meet these bright students and get to teach them the way and the knowledge of physical education." Jake added, "I learned how important it is to come with a great attitude every day."

Further, within SRQ2 results, participants noted the influence of the cooperating teacher, staff, university peers, and Unified peer partners on their attitudes and perceived competence to teach students with disabilities. David commented on the importance of collaboration with all stakeholders, sharing, "The better your relationship with all of those people, the better you'll be able to do your job." The participants described the significance of learning soft skills, such as communication, interpersonal skills, relationship building, patience, collaboration, and self-confidence, as factors that changed their attitudes. Additionally, the participants noted the significance of having others lead by example, including the Unified peer partners in the class. Taylor shared more on how the modified (i.e., Unified) class design significantly broadened her awareness and attitude toward teaching students with disabilities in a GenPE setting, asserting:

I think the Unified is really cool. Because, could we have a [Gen]PE class with the students [with disabilities]? And it's like, definitely. If the general ED students are willing to be a part of the experience for the kids that need a little special help, totally you could do that. Just the kindness of some of those kids... I'm like wow, when I was high school I could not have done what you're doing or, the way you're doing it. It's really cool to see. And you can see them developing those leadership skills throughout it, so that's really cool.

Self-Efficacy

As described in the first chapter of this study, *Self-Efficacy* is based on individuals' beliefs about successfully performing various tasks or life behaviors. Bandura (1974) developed self-efficacy theory to explain how people think, behave, motivate themselves, handle demanding situations, problem-solve, and conduct themselves in their responsibilities. This study explored how an embedded practicum would influence beliefs on self-efficacy in preservice physical educators toward teaching students with disabilities. Two of the four sub-research questions (i.e., SRQ3, SRQ4) provided emergent themes that could be applied to how the practicum developed the perception of self-efficacy in the participants.

Within the thematic data analysis for SRQ3, participants noted how the practicum prepared them to teach students with disabilities. As previously described in this chapter, the themes of experiential learning and modeled pedagogy emerged as significant in the participants' perceived preparedness. Self-efficacy can be developed through various sources, including meaningful observation of a professional in a practical setting. Participants in this study valued the cooperating teacher as an APE professional and described her as influential to their self-efficacy development and preparedness to teach students with disabilities. During the focus

group interview, Taylor described her transformation after working with the cooperating teacher, sharing:

I feel like before I spent any time in the APE classroom, I probably thought it wasn't that fun, that would be really hard, that you'd have to have a ton of patience, which I think is true. But I do think, being in that experience, I realized that it can be a lot of fun and...[the cooperating teacher's] demeanor of just relaxing and letting things happen, that's really something that I think I learned. That's a different view that I never really had before, just realizing that it can be a lot of fun to be working with those kids.

Jake added his take on the attributes he observed from the cooperating teacher and instructional skills he experienced:

She never yelled at the children or students, and I bring that up because she intentionally told me that. She said, 'you know I make sure to never do this, I can only remember a few times that I maybe had to [yell at students] just to keep somebody safe.' But she's just really got a kind heart and a special place for all those students.

Participants in this study also discussed several instances in which they believed they could master teaching students with disabilities as a source of self-efficacy development. Jake explained:

Like teaching any other students, when it's done correctly, you can have a well-oiled machine. Teaching can just happen and it's not something that you have to dread or think is going to be impossible. Just be more prepared and understanding and build those relationships with students.

Further, participants in the focus group were asked if they felt prepared to teach students with disabilities in a GenPE setting. Without hesitation, all three students replied with confidence.

David jumped in first, stating, "My biggest change was my comfort level in teaching a mixed population of "gen-ed" and "APE" students." Jake agreed with David and added, "I do think that is something that is achievable [teaching APE students in GenPE] and I know that's only going to improve as my training continues within this field." He went on to add:

It's going to be good to have that knowledge because students with disabilities will be in your classroom, in your Gen-Ed [PE] class, and it's going to be crucial that you know as much as you can and how to make sure that they're going to have the same experience as that person right next to them.

David compounded Jake's comment and jumped back into the conversation, asserting:

I feel like I agree with [Jake], and not necessarily just students with a tested or a measurable disability but, students that aren't as developed in motor skills and didn't have those experiences, even in elementary school. They might not necessarily have a disability, but you're still gonna [*sic*] have to be able to teach them.

Emergent themes were also found in SRQ4 that connected to the development of self-efficacy. Specifically, participants commented on how the practicum experience held relevancy to their personal and professional development. Promoting APE and life-long learning arose as significant in advancing these skills and perceived self-efficacy. During the focus group interview, Jake described an emotion elicited in a previous experience and how it fueled his passion for learning more about APE. He shared:

I felt they [previous place of employment] were not receiving the adequate resources they needed to meet those needs, I mean it's great that we were able to have staff from different places to be hands-on working with those students, but we didn't have someone that could be there all the time with them. So, you felt like you weren't meeting their

needs, which is really, really hard. Because you know, I mean, you're doing the best you can but you know it's not enough. That was something that created that passion in me too, to venture into this side of things [special education] and make sure I got this [APE] certification because I wanted to fill that need.

Taylor enthusiastically nodded her head as Jake shared in the focus group interview and then described her emotional connection to APE, revealing how it built her self-efficacy and professional development, stating:

I think I've just found that my heart really goes out to those kids that are left out and need extra help. I think that might be part of the reason why I'm so interested in this side of things [special education] is just because it's all those kids, the unity of it, and helping kids to feel like they're part of something.

The participants also discussed the need for additional knowledge and training in APE within other GenPE courses in the physical education teacher education (PETE) program at the university. Jake asserted:

I think it's just super important. I mean it does need to be encouraged and continue to be encouraged because, in my own personal opinion, I don't see why you wouldn't want to have more training in that particular area because you know it's going to be part of your class. It'd be nice if it was something that's just tied to it and it's just part of the [PETE] program.

He added, "this was my first experience in the field, I guess, since coming to [the university] and working with [the cooperating teacher], it was the first time that I have had an experience with that [teaching students with disabilities]." Taylor compounded Jake's statement and added, "I

really think that getting practicum experience for APE is probably the only thing you can really do to prepare for that."

Summary

This mixed-methods study was designed to explain the effects of an embedded practicum on preservice physical educators' attitudes and perceived self-efficacy toward teaching individuals with disabilities. The study utilized a sequential design by employing Rizzo's (1993) pre- and post-practicum survey (i.e., PEATID-III) for quantitative data collection. Additionally, the researcher obtained qualitative data throughout the practicum in the participants' daily journals and after the practicum within the summary of experience reports and a focus group interview.

Based on the results from the survey and the qualitative data analysis, the participants' attitudes and perceived self-efficacy to teach students with disabilities changed throughout the semester-long practicum. The mean scores of the survey increased for both attitudes and perceived competence. Further, several themes emerged from the qualitative data provided an answer as to how the preservice physical educators' attitudes and self-efficacy changed during the practicum: 1) Valued Experience, 2) Connection, 3) Developing Soft Skills, 4) Leading by Example, 5) Relevance, 6) Experiential Learning, 7) Modeled Pedagogy, 8) Life-Long Learning, and 9) Promoting APE. Additionally, two prefigured themes contributed to the participants' change in attitude and self-efficacy: 1) Advocacy and 2) Course Content.

The fifth chapter of this study discusses how the findings aligned with current literature and this study's theoretical framework. Additional discussions comprise the practical applications of the findings, implications for social change, and recommendations for action. The researcher also includes suggestions for future studies and shares a reflection on the research

process, including implicit personal biases, presumed values, and possible effects on the participants.

Chapter 5. Discussion

Physical educators utilize the psychomotor, cognitive, and affective learning domains within their classrooms to teach physical literacy in movement concepts, motor skills, and health-related fitness. All students must receive physical education (PE), including students with disabilities. Under the Individuals with Disabilities Education Act (IDEA), students with special needs who qualify for adapted physical education (APE) must have access to, be involved in, and progress within the general PE curriculum. Services for APE should be in the least restrictive environment. These settings could include general physical education (GenPE), modified (i.e., Unified) PE, or a self-contained APE setting (Columna et al., 2010). Therefore, all PE teachers should be knowledgeable, confident, and prepared to include students with disabilities in their curriculum and classroom.

Studies show that most undergraduates' education in APE is conducted in a one semester-long introductory course within a physical education teacher education (PETE) program (Lieberman & Grenier, 2019; Piletic & Davis, 2010). Additionally, research has determined a categorical approach to the APE course content versus a practical experience as causation of the lack of preparedness and negative attitudes toward teaching students with disabilities by GenPE teachers (Grenier, 2006; Lieberman & Grenier, 2019).

As students with disabilities receive APE services in the GenPE setting, there are growing concerns associated with creating inclusive classrooms, such as the GenPE teachers' perceptions of teaching students with disabilities, the curriculum and training PETE programs provide during APE courses, and the need for developing self-efficacy in inclusionary pedagogy. It is crucial to support these demands by exploring 1) preservice physical educators' attitudes toward teaching students with disabilities, 2) how APE courses and PETE programs prepare

undergraduates for teaching students with disabilities, and 3) how quality practicums can provide experiential learning for future teachers to develop self-efficacy toward inclusion. This study generated findings that helped explain 1) the role of the practicum in APE, 2) the importance of relationship-building as a change agent for attitudes and intentions, and 3) the significance of competence, confidence, and advocacy in building self-efficacy for future APE professionals.

Purpose of Study

The study aimed to explain how an introductory APE course and embedded practicum impacted preservice physical educators' attitudes and self-efficacy toward teaching students with disabilities in the GenPE setting. This study utilized a mixed-methods approach to investigate the guiding research question: *What effect does an embedded practicum in a modified physical education class have on preservice physical educators' attitudes and perceived self-efficacy toward teaching students with disabilities in an inclusive GenPE setting?* Four sub-research questions provided additional information to the guiding research.

- SRQ1: What are the attitudes and perceived competence of a preservice physical educator enrolled in an introductory APE course toward teaching students with disabilities before and after a practicum experience?
- SRQ2: What influence did the introductory APE course and practicum have on preservice physical educators' attitudes and perceived competence to teach students with disabilities?
- SRQ3: What components of the introductory APE course and practicum best prepared the preservice physical educator for teaching students with disabilities?
- SRQ4: How did the preservice physical educators view the practicum experience as relevant to their personal and professional development?

The philosophical underpinning of the study was pragmatism. The ontology of the pragmatist paradigm is that reality is always in debate and interpreted through new lenses within ever-changing situations. One knows this reality through the epistemological perspective of finding the most favorable method to solve problems and promote change (Patel, 2015). The emerging issue of inclusion in GenPE with teachers who feel unsupported and ill-prepared has generated negative attitudes toward teaching students with disabilities. Therefore, this study investigated what components of the APE course curriculum and practicum were the most effective in changing attitudes and perceived competence toward teaching students with disabilities while promoting self-efficacy toward inclusion. The mixed-methods research approach allowed the researcher to blend the quantitative and qualitative data, with both being carefully combined and valued for specific research purposes (Briggs et al., 2012). The researcher's focus within the pragmatist paradigm was on what methods could collect the best data to answer the research questions and develop practical implications (Creswell & Poth, 2018). An additional value of mixed-methods research was in explaining relationships. The mixed-methods approach can "cross-validate relationships discovered between variables...to see if they converge on a single interpretation of a phenomenon" (Creswell & Poth, 2018, p. 504).

Methods

This study focused on preservice physical educators ($n = 9$) enrolled in an introductory APE course with an embedded practicum. The Physical Educators' Attitudes toward Teaching Individuals with Disabilities survey (PEATID-III) (Rizzo, 1993) was employed to collect pre- and post-practicum quantitative data on the participants' attitudes and perceived competence toward teaching students with disabilities. The participants completed the PEATID-III (Rizzo,

1993) survey before starting the practicum experience in a modified (i.e., Unified) PE class and after the 13-week practicum.

The study's qualitative phase employed three data sets: reflective daily journals, a summary of experience report, and one semi-structured focus group interview. Along with the reflective journaling and the summary of experience reports, the responses by the focus group in the semi-structured interview provided additional in-depth data on the participants' attitudes toward teaching students with disabilities and self-efficacy toward inclusion. The PEATID-III (Rizzo, 1993) survey and the three qualitative sources served to triangulate the data for validation of the study.

Summary of Findings

The results of the mixed-methods study included findings from both quantitative and qualitative data to answer the overarching research question and four sub-research questions. Findings from the PEATID-III (Rizzo, 1993) survey on attitudes and perceived competency toward teaching students with disabilities were determined through a paired-samples *t*-test of the pre- and post-practicum data. Results showed a statistically significant mean score increase occurred. Additionally, descriptive statistics were utilized to show a mean increase between pre- and post-practicum scores for the participants' perceived competence toward teaching students with disabilities. These findings indicated that the participants' perceived competence increased throughout the APE course with embedded practicum experience.

The qualitative data revealed several themes across the four sub-research questions (i.e., SRQ1, SRQ2, SRQ3, SRQ4) and within the guiding research question. First, in response to SRQ1 concerning the preservice physical educators' pre- and post-practicum attitudes and perceived competence toward teaching students with special needs, the participants indicated

initial *feelings of apprehension* and expressed hesitation *stepping into the unknown* prior to the practicum. Codes for these two themes showed the participants' dispositions, including feeling nervous, shy, overwhelmed, fearful, and unprepared. Additionally, results from SRQ1 unveiled the participants' dispositions after the practicum within the themes of *valued experience* and *connection*. Codes within these themes indicated that participants held the practicum experience in high esteem by proclaiming their gratitude, growth, excitement, and joy while touting the importance of building relationships, engaging with students, and seeing their abilities in the PE classroom setting.

Second, in response to SRQ2, which examined the influence of the introductory APE course and practicum on the participants' attitudes and perceived competence to teach students with disabilities, two themes were established 1) *leading by example* and 2) *developing soft skills*. The participants substantiated the power of leadership exemplified by the cooperating teacher, support staff, university peers, and Unified peer partners as a significant factor in their development. Additionally, the participants noted the importance of communication and developing interpersonal skills as contributing to a change in attitude and perceived competence.

Third, results from SRQ3 regarding which components of the APE course and practicum best prepared the participants for teaching students with disabilities signified themes that showed the benefit of having *relevant course content* and a practicum that provides *experiential learning* and *modeled pedagogy*. As established in the codes for the APE Course, participants felt the course content was valuable and developed their empathy and growth while allowing them to apply relevant knowledge to real-life situations. However, the participants expressed that the most substantial impact on feeling prepared to teach students with special needs came from the practicum. Codes from the emergent theme of experiential learning displayed the significance of

hands-on experience while building confidence and competence in teaching students with disabilities. Additionally, participants noted their observation of modeled pedagogy to develop an inclusive learning environment through relationship building, classroom management, and embracing diversity as significant. Codes also established the magnitude of observing inclusive instruction through modifications and adaptations for the task, learner, and environment. These factors prepared the preservice physical educators for teaching students with disabilities in the GenPE classroom.

Finally, in response to SRQ4, which explored how preservice physical educators viewed the practicum experience as relevant to their personal and professional development, results revealed three themes, 1) *advocacy*, 2) *promoting APE*, and 3) *life-long learning*. The codes for each of these themes reflected the participants' perceptions of the practicum's influence on their future as physical educators. The participants noted the importance of developing advocacy for students with disabilities, the PE and APE professions, and equity for all as ways to transform their future professional selves. Additionally, the participants shared ideas for promoting APE through educating others, raising awareness, and involving the community. Lastly, life-long learning was expressed as valuable in the participants' personal and professional development through continued education, the power of knowledge, and more experiences with the special needs population.

As discussed in the fourth chapter of this study, findings from the four sub-research questions are woven into the results for the guiding research question regarding what effect an embedded practicum in a modified physical education class had on the attitudes and perceived self-efficacy of preservice physical educators toward teaching students with disabilities in an inclusive GenPE setting. Findings for the study's research question were broken into two

sections, 1) attitudes and 2) self-efficacy. First, the results for what effect the practicum had on *attitudes* toward teaching students with disabilities developed from combining the quantitative results from the PEATID-III (Rizzo, 1993) survey with the qualitative themes from SRQ1 (i.e., valued experience, connection) and SRQ2 (i.e., developing soft skills, leading by example). Results from the pre- to post-practicum PEATID-III (Rizzo, 1993) survey indicated a significant increase in the mean scores for both attitudes and perceived competence toward teaching students with disabilities. Within the qualitative findings in SRQ1, the participants noted the practicum as a rewarding experience where they connected with students with special needs through relationship building, experiencing student success, and seeing abilities. Additionally, as noted in the SRQ2 findings, the participants acknowledged the practicum experience as influential in their communication and interpersonal skills development. They further noted modeled leadership by the cooperating teacher, support staff, and the Unified peer partners. Together, these results explained a change in the preservice physical educators' attitudes toward teaching students with disabilities.

Finally, the results for what effect the practicum had on *self-efficacy* evolved from integrating themes from SRQ3 (i.e., experiential learning, modeled pedagogy) and SRQ4 (i.e., advocacy, promoting APE, life-long learning). Within the qualitative findings in SRQ3, the participants noted the value of the APE course content in their development of empathy and overall growth toward teaching students with special needs while noting the significance of the content's relevance to the real-life application of knowledge. Further, the participants shared how the practicum provided a hands-on learning experience through modeled inclusive pedagogy to build their confidence and competence. When combined with the PEATID-III (Rizzo, 1993) survey results for perceived competence, these qualitative findings show the effectiveness of the

practicum in building self-efficacy toward teaching students with disabilities. Additionally, results from SRQ4 demonstrated the developed self-efficacy of the participants by showing how they intended to utilize their practicum experience to further their professional selves through advocating for the APE profession and students with disabilities while providing future opportunities for educating others and involving the community. Additionally, the participants acknowledged the desire to pursue further education and experiences in APE as they continue to build self-efficacy toward teaching students with disabilities in physical education.

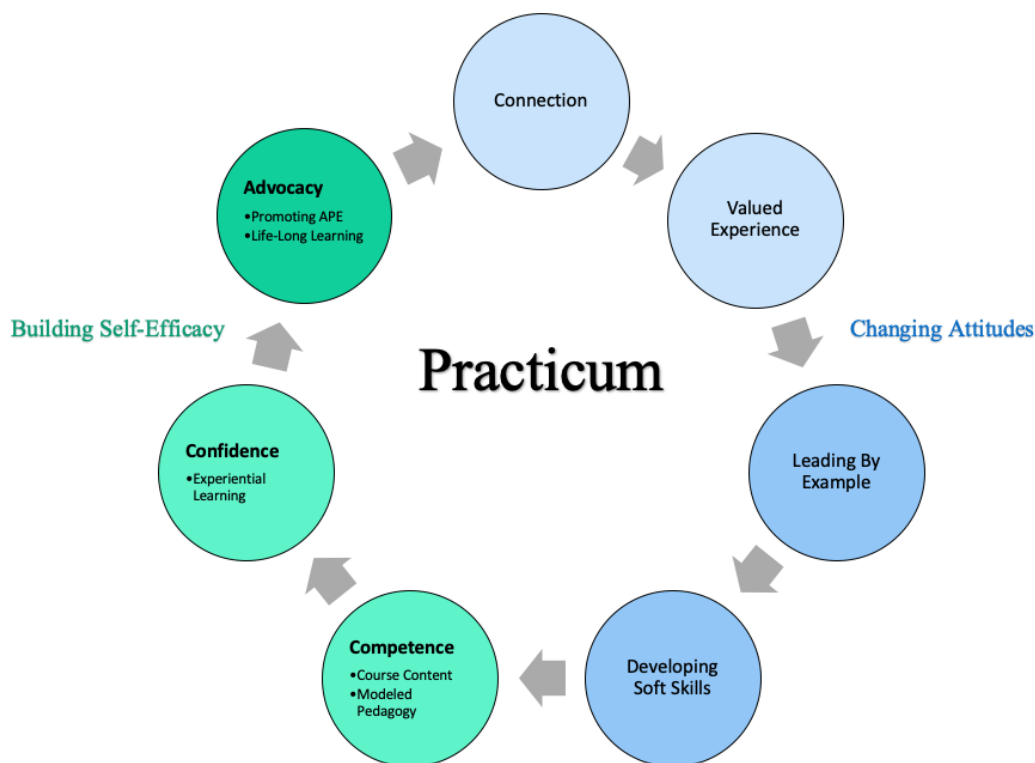
Interpretation of Findings

In recent literature, a call to address how practicums impact preservice physical educators' attitudes toward teaching students with disabilities was made by researchers Yarimkaya and Rizzo (2020). The authors proposed that future researchers develop mixed-methods studies to explain what factors are involved in changing attitudes toward teaching students with disabilities. Gathering multiple data sets on how and why attitudes and self-efficacy improved during the APE course and practicum could offer insight into the intentions to teach to a diverse population of students.

As mentioned in the fourth chapter of this study, the quantitative results from the PEATID-III (Rizzo, 1993) pre- and post-practicum survey indicated a significant mean score increase in the participants' attitudes toward teaching students with disabilities. As represented in the theoretical framework (i.e., theory of planned behavior) of the PEATID-III survey, the increase in the mean scores suggested that the practicum experience improved the attitudes of the preservice physical educators, therefore, influencing the intentions, willingness, and effort to perform the behavior (Ajzen, 1991) of teaching students with disabilities. Additionally, results

from the PEATID-III survey showed an improvement in the participants' perceived competence, as exhibited by the increase of mean scores from the pre- to post-practicum data.

The fourth chapter also conveyed the qualitative results of this study. In steps four and five of the qualitative data analysis spiral, Creswell and Poth (2018) recommended that researchers develop and assess interpretations while representing the data visually for the reader. To interpret the findings of the guiding research question (RQ), *what effect an embedded practicum in a modified physical education class had on the attitudes and perceived self-efficacy of preservice physical educators toward teaching students with disabilities in an inclusive GenPE setting*, the four sub-research questions were utilized to provide an in-depth explanation for the effectiveness of the practicum experience. Data collected from qualitative sources were woven into the final interpretation for the RQ and revealed how the practicum was experienced cyclically by the participants, which inevitably changed their attitudes and built self-efficacy toward teaching students with disabilities. The cycle experienced by the participants is illustrated in Figure 6 and is explained in the following sections, 1) Power of Practicum, 2) Changing Attitudes, and 3) Building Self-Efficacy.

Figure 6*Research Question Themes*

Note. APE = Adapted Physical Education.

The Power of Practicum

Practicum is widely used in teacher education programs for preservice teacher candidates to apply content knowledge to real-life situations. Participants in this study noted the significance of the practicum experience as a way for them to apply the knowledge they were learning in the APE course to a hands-on setting. These findings, consistent with research in PETE and adapted physical education teacher education (APETE), established the need for frequent and quality (Parker, 2002) practicum experience in APE as a critical and impactful (Park & Curtner-Smith, 2018) component for helping preservice physical educators develop as teachers (Estel-Layne & Blasingame, 2018; Sato & Haegele, 2017). One of this study's participants, Amy, confirmed the

power of her practicum experience, sharing "During my practicum, I learned so many valuable things that I will be able to take with me in my future courses, student teaching, and future job." Every participant (n = 9) expressed the importance of the practicum experience in their development and preparation to teach APE. Ergo, this study's results established that including a practicum in an introductory APE course effectively changes attitudes and builds self-efficacy in preservice physical educators toward teaching students with special needs.

Changing Attitudes

The first principal component of the research question was to explain how effective the practicum was at changing attitudes toward teaching students with disabilities. While the quantitative data laid out in this sequential mixed-methods study already indicated a change in attitude occurred, the qualitative data analysis process allowed the researcher to describe what factors led to these changes during the practicum. The following sections lay out the themes associated with explaining how attitudes were changed during the practicum: 1) Connection, 2) Valued Experience, 3) Leading by Example, and 4) Developing Soft Skills.

Connection was interpreted as the first factor needed for the preservice physical educators' to change their attitudes toward teaching students with disabilities. As noted in the findings of this study, connection was first achieved by stepping away from feelings of uncertainty and fear, emotions consistent in literature for initial contact with students with disabilities (Duchane et al., 2008; Estel-Layne & Blasingame, 2018; Roper & Santiago, 2014; Woodruff & Sinelnikov, 2015). Most of this study's participants noted starting the practicum with nervousness, shyness, or fear. One participant, Carter, stated he was scared to engage with the students at all because there were so many unknowns going through his mind. However, the participants moved from fear into connection with the students. Several studies have determined

contact as a strategy to reduce anxiety and improve attitudes toward individuals with disabilities (Estel-Layne & Blasingame, 2018; Roper & Santiago, 2014; Sofo et al., 2016). This study took the concept of contact a step further by emphasizing the importance of connection. Participants revealed how engaging with students, celebrating their successes, and seeing students for their abilities yielded positive interactions and developed meaningful relationships and connections. Allison shared about her relationship with one of the students, asserting, "I felt connected to her because she was confident that I was there to help and encourage her while she was playing basketball." Another participant, Taylor, described her attitude toward relationships in the classroom as one of her "biggest pieces of growth" during the practicum experience. Other participants noted the significance of building relationships as key, crucial, and essential in the process of connection. Consistent with recent research (Park & Curtner-Smith, 2018; Woodruff & Sinelnikov, 2015), these findings indicated the significance of connection and relationship building as factors that changed participants' attitudes toward teaching students with disabilities.

The second factor participants needed to positively change their attitudes toward teaching students with special needs, came from valuing the practicum experience. Within the emotions that elicit a valued experience, the participants described their transformative growth, compassion, comfort, and knowledge as they developed throughout the practicum. These dispositions aligned with recent studies on positive changes in attitudes toward teaching students with disabilities through increased personal growth, empathy, and self-confidence (Lee et al., 2020; Santiago et al., 2020; Wilson & Richards, 2019). One participant, Taylor, shared, "I think that any opportunity to gain perspective on the world and lives around us is a deep growing experience, and this was certainly one of those." By connecting with the students through relationship building, the participants began to find intrinsic value in the experience, thus

continuing to positively change their attitudes and intentions toward teaching students with disabilities.

The third factor toward changing attitudes recognized the role of leadership demonstrated by the cooperating teacher, the support staff, and the Unified peer partners as influential to the participants' improved beliefs toward teaching students with disabilities. Collaboration with cooperating teachers has been shown in adapted physical education teacher education (APETE) programs to reduce the feelings of uncertainty that preservice physical educators may face when entering the APE profession (Sato & Haegele, 2017). Similar to recent research (Park & Curtner-Smith, 2018; Wilson & Richards, 2019), this study's participants asserted the benefit of the leaders' mentorship, passion, relationship-building, and knowledge in the APE profession toward their development of confidence, competence, and intentions to teach students with disabilities. One participant, Carter, summed up this sentiment, "I learned a lot from working with [the cooperating teacher] and para[professionals]s and how much [she] does for these kids" (Carter).

The final factor toward changing attitudes was the development of soft skills, including communication and interpersonal skills. Participants in this study established that communication was vital in developing authentic relationships with the students through verbal, non-verbal, and listening skills. Several participants noted the significance of learning how to communicate through assistive technology with a student during the practicum. Taylor shared, "My highlight was when [the student] came up to me with his tablet and clicked the buttons so that he said, 'I am happy because I have you.' Then he gave me a hug." Communication was just one of the layers of developing soft skills within the practicum experience.

Additionally, the participants developed other interpersonal skills that assisted in developing personal relationships with the students. Consistent with research, positive

interpersonal relationships are vital to learning (Martin & Dowson, 2009; Woodruff & Sinelnikov, 2015). Josh commented on how interpersonal skills changed his attitude during the practicum, concluding:

I have learned that these students often think the same way we do, they just have limitations. I had great conversations...it was great because they just want to be treated like anyone else and this is what I was able to do with them.

The interpersonal relationships created between the participants and the students allowed the participants to acknowledge their preconceived ideas or labels they had for the students by welcoming a new disposition (Woodruff & Sinelnikov, 2015). A transformative comment from Carter, shared in the fourth chapter, holds such significance that it is worthy of restating. He affirmed:

I also noticed my views change on certain disabilities. I would say that I had certain assumptions about certain disabilities, none bad, but assumptions. I walked in with an opinion already, and doing this whole practicum changed my opinion completely. As a future educator, I am very excited to teach those with disabilities.

Evidence from this study has concluded, both from the quantitative survey results and displayed within the qualitative thematic analysis, that through 1) finding connection, 2) valuing experience, 3) observing leadership, and 4) developing soft skills, attitudes toward teaching students with disabilities were positively changed during the practicum experience. At the heart of every positive change in attitude were relationships, the most commonly expressed connection, value, observation, and interpersonal interaction with the students.

Building Self-Efficacy

Through the PEATID-III (Rizzo, 1993) survey and the qualitative data analysis process, this study confirmed that participants' attitudes toward teaching individuals with disabilities changed during the APE course with practicum experience. The PEATID-III survey was one of the first instruments in attitudinal research to include a theoretical framework, the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), which was extended to the theory of planned behavior (Ajzen, 1991). The theory of planned behavior (TPB) was utilized as one of the theoretical frameworks within this study. Azjen established perceived behavioral control as an essential factor in TPB for determining attitudes and intentions. Additionally, Azjen noted the compatibility of perceived behavioral control and Bandura's (1977) self-efficacy theory, a second theoretical framework employed by this study. Perceived self-efficacy can influence an individual's preparation, effort, thought patterns, and emotions associated with the performance of a behavior (Bandura, 1982). Therefore, an individual's behavior (e.g., teaching students with disabilities) is conclusively affected by their competence and confidence to execute it (i.e., perceived behavioral control) (Ajzen, 1991). In this study, the participants' change of attitude and development of dispositions that recognized the APE course and practicum as valuable led to the teachers' perception of self-efficacy. Results from recent studies confirmed that practicum experiences are significant in increasing self-efficacy, competence, and confidence in teaching students with disabilities (Estel-Layne & Blasingame, 2018; Roper & Santiago, 2014; Taliaferro et al., 2015; Woodruff & Sinelnikov, 2015). Results from this study's participants established the impact of the introductory APE course and practicum in developing 1) competence, 2) confidence, and 3) advocacy in APE, factors that have been interpreted as significant in the building of perceived self-efficacy toward teaching students with disabilities.

Competence. This study indicated that the first factor in building self-efficacy revolved around development of competence. As one participant, Carter, noted, "knowledge is power." Several participants confirmed that the APE course content provided the information they needed to feel prepared to teach in the practicum setting. David stated, "The course content was helpful in giving insight into why things happen and a deeper understanding of thinking processes." To further the significance, Carter added, "I think that everything being so hands-on was what the course content prepared me for." Amy compounded Carter's thoughts, stating, "I think it is so important to have all these assignments, and of course practicum, because this is the only way to really dive into and learn what you need to know to be a successful teacher." The participants reported content such as information on types of disabilities, modifications and accommodations, and lesson planning as the most helpful in preparation for the practicum experience in APE. Corroborated by recent research, practicums combined with APE course content were concluded to be the most effective in changing attitudes and self-efficacy toward teaching students with disabilities through increased knowledge and pedagogy (Taliaferro et al., 2015; Wozencroft et al., 2015). Established in Bandura's (1977) self-efficacy theory, performance accomplishment is denoted as the perceived mastery of a behavior and the ability to generalize it to other tasks and environments. This study indicated that the participants established performance accomplishment by utilizing the course content knowledge and applying it to the practicum to build self-efficacy.

Another significant factor in developing competency, as noted by the participants in this study, was modeled pedagogy. The ability to improve one's perceived self-efficacy through observation is known as vicarious experience in the Theory of Self-Efficacy (Bandura, 1977). Recent research suggested that as physical educators' attitudes and self-efficacy toward teaching students with disabilities improve with hands-on experience, they will be more likely to

implement valid inclusive pedagogy for students of all abilities (Taliaferro et al., 2015; Yarimkaya & Rizzo, 2020). Participants of this study valued the inclusive pedagogy modeled by the cooperating teacher, including a student-centered approach to modifications for the learner, task, and environment. Taylor discussed her perceived competence toward inclusive pedagogy, sharing, "One of the ways I noticed this change was how I started to automatically think of ways to adapt certain games or activities to make them more inclusive to different types of students and learners." David added, "I was a little unsure of how to modify some activities and teach different skills; however, after this class, I am confident I could do something very similar at my future school." Additional participants affirmed this transformation from their perspectives. Josh commented on the impact student-focused pedagogy had on his competency, stating, "Being able to teach all different learning styles will make me a more versatile teacher, and the students will enjoy my classes more and be more motivated to learn." Jake added, "The experience also helped to know how to lesson plan for students with disabilities. What modifications worked and what modifications did not work." Consistent with the literature, the inclusionary practices described by the participants allowed all students to feel successful in PE (An & Meaney, 2015; Lieberman et al., 2017; Wilson et al., 2020).

The practicum's effectiveness in improving competency was established through Kolb's (1984) experiential learning theory (ELT), the final theoretical framework woven into this study. Within ELT, Kolb established that learning is derived from transformative experiences which affects knowledge, ability, and attitudes. Through their involvement in the practicum, the participants encountered all stages of ELT through "experiencing, reflecting, thinking and acting" (Kolb & Kolb, 2012, p. 194). The interpretation of these results connected the significance of developing competency to building self-efficacy in APE. The participants were

also able to use their competency in APE to strengthen their confidence to teach students with disabilities.

Confidence. The second factor, determined by this study, to build self-efficacy was developing perceived confidence through experiential learning. Confidence, an emotion elicited by feelings of assurance in one's own ability, was consistently expressed by the participants as a change from the start of the practicum. Taylor shared how the experiential learning developed her self-assurance, stating, "The hands-on experience gave me so much more confidence in my skills as a teacher in an adaptive physical education classroom." Additionally noted, Allison asserted this conclusion, stating:

Gaining knowledge and being hands-on is so important. It not only helped me genuinely care about students with disabilities but helped me understand and be able to teach students with disabilities.

Consistent with research, the hands-on experience allowed the preservice teacher candidates opportunities for learning about students while developing their intentions to teach students with disabilities (An & Decker, 2019). Several of this study's participants noted the importance of hands-on experience during the learning process (Richards et al., 2015) to build their confidence in teaching the students, leading group activities, developing relationships, and managing classroom behaviors. Cristofer reflected on the latter, stating:

As an inexperienced teacher, [I] would struggle deciding how to handle these situations. I feel comfortable attempting to handle them the same way we did in our practicum class because it seemed more than reasonable and effective.

Results from this study were consistent with prior research on practicum effectiveness as a significant factor in developing confidence and competence to build perceived self-efficacy in

teaching students with disabilities (Hodge & Jansma, 2000; Taliaferro et al., 2015; Woodruff & Sinelnikov, 2015). However, participants from this study provided an additional avenue for the future development of self-efficacy, building advocacy in the APE profession.

Advocacy. As noted from the results of this study, the final factor for building self-efficacy was concluded to be advocacy. Through their experience in the introductory APE course and practicum, the participants established an ongoing professional interest in APE through advocacy, promotion, and continued education. Consistent with the literature, life-long learning and opportunities to promote APE in the community increased the participants' motivation and intentions to teach students with disabilities (Sato & Haegele, 2017). As shared in the fourth chapter findings, Jake asserted his position, stating, "Physical Education is so important for all individuals and has been shown to have so many benefits. We cannot become complacent in our profession and need to keep fighting. I know it's hard sometimes, but we need to try!" Taylor compounded Jake's testament, sharing:

Every chance I get, I tell people that I am getting certified in adaptive physical education. It is something that I am excited about and proud of, and it often seems that many people don't know much about it, which gives me the opportunity to explain some of the neat experiences I have had with APE.

Recent research on the socialization of the APE occupation noted the significance of meaningful experiences with students with disabilities as an approach to recruiting more individuals into the APE profession (Park & Curtner-Smith, 2018; Wilson & Richards, 2019). One participant in this study, Carter, asserted, "Becoming an advocate for Adapted Physical Education will be what I strive for, for the rest of my professional career." Taylor corroborated this statement,

proclaiming, "If every student that took this class decided to advocate in some way for Adapted Physical Education, it would be a powerful movement."

Summary

To summarize the interpretation of what effect an embedded practicum in a modified physical education class had on the attitudes and perceived self-efficacy of preservice physical educators toward teaching students with disabilities in an inclusive GenPE setting, results indicated the practicum elicited a cycle of experiences that contributed to the participants' attitude change, 1) connecting with the students, 2) valuing the experience, 3) observing positive leadership, and 4) developing soft skills. These factors established relationships with the cooperating teacher, support staff, Unified peer partners, and most importantly, the students with disabilities. Without relationships and interpersonal skill development, attitudes toward teaching individuals with special needs cannot be positively changed.

Further, the positive change in attitudes allowed the participants to move into the next stage of development, building self-efficacy. Three components were denoted as influential to the perceived self-efficacy of the participants, 1) competence, 2) confidence, and 3) advocacy. Competency was developed during the introductory APE course and throughout the practicum. Factors that increased perceived competence included 1) course content and 2) modeled pedagogy. As determined by this study, the second component for building self-efficacy was confidence. Participants noted the significance of hands-on experiential learning in their perceived confidence toward teaching students with disabilities. Finally, the third component for building self-efficacy emerged from the participants' motivation to advocate for APE after the practicum. Through advocacy, the participants found their voice as future contributing members

to the APE profession, touting promotion, equity, and continued education as strategies to serve students with disabilities in inclusive GenPE settings.

Implications of the Study

Students with disabilities will always be a part of the GenPE setting. There are growing demands for undergraduate PETE programs to infuse inclusive pedagogy throughout the curriculum to develop physical educators prepared to teach all students. This study served as evidence to explain practicum's effect on the attitudes and intentions toward teaching students with disabilities. Relationship building and finding value in the experience were factors that contributed to improved intentions. Observation of the cooperating teacher, support staff, and Unified peer partners was crucial for developing communication skills and interpersonal relationships with the students.

Further, the study's findings supported how quality practicum experiences impacted preservice teachers' self-efficacy toward inclusion. The participants noted the development of perceived competency and confidence to teach students with disabilities throughout the APE course and practicum. As established, preservice GenPE teachers can ideally benefit from the knowledge of inclusive pedagogy and quality practicum to teach diverse learners. Specifically, selecting a modified (i.e., Unified) PE class for a practicum experience in an introductory APE course can provide an applicable setting to familiarize GenPE teacher candidates with a purposeful, inclusive environment and curriculum. A positive experience in such a practicum may improve intentions to teach students with disabilities and motivate PETE teacher candidates to enroll in additional APE programming to attain state or national licensure.

The findings in this study additionally served to improve and advance leadership for PETE and APETE faculty through "mitigating the lack of training in addressing the needs of

diverse learners" (Lieberman & Grenier, 2019, p. 4). Programs should offer quality practicum experiences in teaching students with disabilities and provide preservice physical educators with the resources and training to build inclusive classrooms while implementing modeled pedagogical approaches. Further, evidence from this study could be used by PETE program coordinators to support implementing the Infusion Model (DePauw & Karp, 1994) by integrating APE pedagogy into all PETE methods courses, instilling Universal Design for Learning (UDL) Framework into PETE programming (Lieberman & Grenier, 2019), or by developing more APE specific courses to provide future physical educators with the tools needed to teach students with disabilities in inclusive environments (Piletic & Davis, 2010).

Recommendations for Action

The results of this study provided grounds for the PETE program involved in the study to explain the curriculum and practicum placement for the introductory APE course. Data from the participants established the format utilized in this study as a practical approach to meeting the learning outcomes and developing improved attitudes and self-efficacy toward teaching students with disabilities. Additionally, the results from this study can serve other undergraduate PETE programs looking to adopt this curriculum model, which provides online course content and in-person weekly practicum in a modified (i.e., Unified) PE setting. As the findings show, physical education teacher candidates want to learn kinesthetically and value experiential learning within quality APE programs. The added benefit of the modified (i.e., Unified) PE class for the practicum setting allowed all undergraduate students in the introductory APE course to have the opportunity to see inclusion in action with a purposeful curriculum design.

Additionally, results from this study displayed the significance of the Unified PE movement. Through a curriculum designed by Special Olympics, school districts can become

Unified Champion Schools (UCS). The practicum setting for this study was a high school UCS, established in 2020. UCS programs have been found to increase social interaction, develop leadership skills, and close the gap between students in the special education population and the general education population (Kulczycky, 2019). Further, as this study demonstrated, UCS programs could contribute to a new recruiting class of APE teachers. Several participants noted the significant leadership and interpersonal skills of the Unified peer partners during their practicum experience. One participant, Taylor, commented on conversations with at least three peer partners (i.e., students without disabilities) who voiced wanting to go into the APE profession because of their experience with the cooperating teacher and the Unified PE class.

Recommendations for Further Study

This study provided a basis for additional research questions regarding the effectiveness of the practicum setting in an introductory APE course. First, whether a modified (i.e., Unified) PE practicum setting is an effective learning experience for developing general physical educators' attitudes and intentions to teach students with disabilities in inclusive settings. Second, researchers could investigate if the hybrid learning modality for an introductory APE course is an effective learning tool. Finally, future researchers could compare the effectiveness of different practicum placements in a variety of APE settings on the attitudes and self-efficacy development toward inclusion in GenPE.

This mixed-methods study only collected data from nine undergraduate students from one PETE program, which is the chief limitation. Future studies could include other institutions and more participants to add to the limited mixed-methods literature on attitudinal change and self-efficacy development by preservice GenPE teachers toward teaching students with disabilities in an inclusive setting. Further, additional studies are needed to understand the

socialization of preservice APE teachers through the occupational socialization theory (Lawson, 1986). Previous research established this concept as a growing area of study (Park & Curtner-Smith, 2018; Sato & Haegele, 2017; Wilson & Richards, 2019), and future research questions could include exploration into how the Special Olympics Unified PE movement has inspired, prepared, and recruited current high school students into APETE programs and the APE profession.

Reflection on Researcher's Experience

The researcher's perspective was that this study contributed to the literature through the mixed methods design. There is a long history of quantitative or qualitative attitudinal research on physical educators' attitudes toward teaching students with disabilities. However, through the mixed-methods approach, the researcher combined the data and offered a well-rounded, in-depth explanation for the research questions. Specifically, the three types of qualitative data sets proved to be an effective method for collecting and analyzing data. The daily journals allowed the participants to be open throughout their experience, while the summary of experience report required more profound thought based on the prompts. Finally, the focus group interview added an extra layer of saturation. The participants were comfortable and supportive of each other and their collective experiences. The researcher felt the data were saturated and trustworthy within these three components among the nine participants. Additionally, the valid and reliable quantitative survey results allowed for triangulation of data within the study.

The researcher was not without personal biases. As the primary instructor for the introductory APE course, the researcher had confidence in the practicum setting and the experience the students would have with the cooperating teacher due to prior knowledge of previous APE courses. The summary of experience report was an assignment utilized prior to the

study as a reflection by previous undergraduate students in the APE course. Therefore, the researcher predicted some of the emotions and attitude changes that developed throughout the course and practicum. The researcher is also the APE program coordinator at the Midwest university where the study took place. Part of the researcher's position is to promote, recruit, and retain undergraduate students in the APETE program. The introductory APE course serves as a starting block for the APE certificate program; therefore, the researcher intended to utilize the study's results to demonstrate the significance of the practicum as a transformable experience to welcome students into the APE profession.

Additionally, the researcher's biases lie in her passion for the APE profession that is modeled and shared with the undergraduate students. To avoid manipulating the participants' emotions and results from the study, the researcher took a step back from some of the course components, such as observation at the research site and delivering course content in person. All content was delivered online, allowing the participants "class time" to spend in the practicum with the cooperating teacher. The participants and additional undergraduate students not involved in the study received this learning modality well. Even though attempts were made not to influence the participants, the researcher did not stop promoting the importance of APE or the significance of the APETE program during academic advising appointments or in general conversation. One of the characteristics of a high-quality APE course, as established in a study by Park and Curtner-Smith (2018), was the mentorship, knowledge, and passion of the instructors in the program.

While confident that the practicum would influence the participants' attitudes toward teaching students with disabilities, the study's results also helped the researcher explain the factors that led to these changes. First, relationship development was found to be a critical factor

in changing attitudes and building self-efficacy. While such a simple concept, relationship-building with the students, the cooperating teacher, and the Unified peer partners was the most discussed component of the practicum, as shown in the findings. Without developing interpersonal relationships, the researcher concluded that no attitudinal changes could be made, nor can the preservice physical educators begin to build their self-efficacy toward inclusion. Relationships are a foundational building block. Second, the significance of conducting the practicum in a modified (i.e., Unified) PE setting demonstrated to the participants how to combine both general PE students and students with disabilities in a purposeful and meaningful way. Given the study results, the researcher determined that this setting will be utilized for future introductory APE course practicums within the PETE program at the research institution. Lastly, from the researcher's perspective, the final revelation of the study was the power of the Unified peer partners as change agents for inclusion. The participants raved about the high school students' compassion, comfort level, and leadership skills as peer partners in the modified (i.e., Unified) PE class. Several participants noted that the peer partners' behavior was unlike anything they experienced growing up. Additionally, and arguably most significantly, the participants described the peer partners as inspiring to their own development of self-efficacy toward teaching students with disabilities but also viewed the experience as future physical educators, noting the belief that if they could have a PE class and students like that, they could teach in an inclusive GenPE setting.

Conclusion

This study contributed to the current literature by explaining a practicum's effects on preservice physical educators' attitudes and self-efficacy toward teaching students with disabilities. Through the in-depth explanation as to how and why these dispositions were created

during experiential learning within an introductory APE course, PETE programs have the opportunity to refine and develop meaningful practicum experiences with diverse learners. This action can assist GenPE teachers in feeling adequately prepared to teach in inclusive learning environments. Further, this study determined relationship building to be an effective approach to changing attitudes toward teaching students with disabilities through 1) connecting with students, 2) valuing experience, 3) observing leadership, and 4) developing soft skills. In addition, this study revealed knowledge and hands-on experience through 1) course content and 2) modeled inclusive pedagogy as valuable tools to build self-efficacy toward inclusion. Finally, this study demonstrated the significance of advocacy as a step toward the future development of positive attitudes and self-efficacy in the APE profession through 1) promoting APE and 2) life-long learning. Through each positive interaction and developed relationship, the participants in this study knocked down barriers and stomped out stereotypes that often lead to misinformation and uncertainty when teaching students with disabilities. Inspiration to change attitudes and build self-efficacy can be found all around, from PETE and APETE instructors and cooperating teachers to high school Unified peer partners, as evident in the results of this study.

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Appendix A

Qualtrics PEATID-III Survey

Physical Educators' Attitudes toward Teaching Individuals with Disabilities (PEATID-III)

Thank you for agreeing to participate in this research project.

General Directions: This study contains a series of statements, which express beliefs about teaching individuals with disabilities in your regular physical education classes. There are no right or wrong responses. Circle the response that best describes your beliefs about each statement for each disability.

Enclosed is an explanation of three disabling conditions found in the survey to assist you in your response. Read the descriptions carefully before you begin the study. It is important to respond to the statements using only these descriptions.

DO NOT SKIP ANY QUESTIONS.
CIRCLE ONLY ONE RESPONSE PER DISABILITY.
ALL RESPONSES WILL BE KEPT CONFIDENTIAL.

Descriptions of Disabilities

Autism Spectrum Disorder (ASD): “Autism spectrum disorder (ASD) is a complex developmental condition that involves persistent challenges in social interaction, speech and nonverbal communication, and restricted/repetitive behaviors. The effects of ASD and the severity of symptoms are different in each person.”

Physically Impaired (PI): “Physical impairment is a disability that limits a person’s physical capacity to move, coordinate actions, or perform physical activities. It is also accompanied by difficulties in one or more of the following areas: physical and motor tasks, independent movement; performing daily living functions.”

Mild-Moderate Intellectual Disability or Developmental Cognitive Delayed (DCD): This student would be considered to have an IQ score in the range of 50 to 80 on standardized intellectual tests. The student will probably develop communication skills and social skills but will lag behind their peers. The student usually can learn vocational and daily living skills but may need guidance and/or assistance in these areas. These students may have difficulty in performing motor skills, and exhibit a short attention span.

Please place the slider to the correct response which best corresponds to your agreement with each statement and for each labeled disability. Do NOT skip any.

=====

KEY

1=STRONGLY DISAGREE

2=DISAGREE

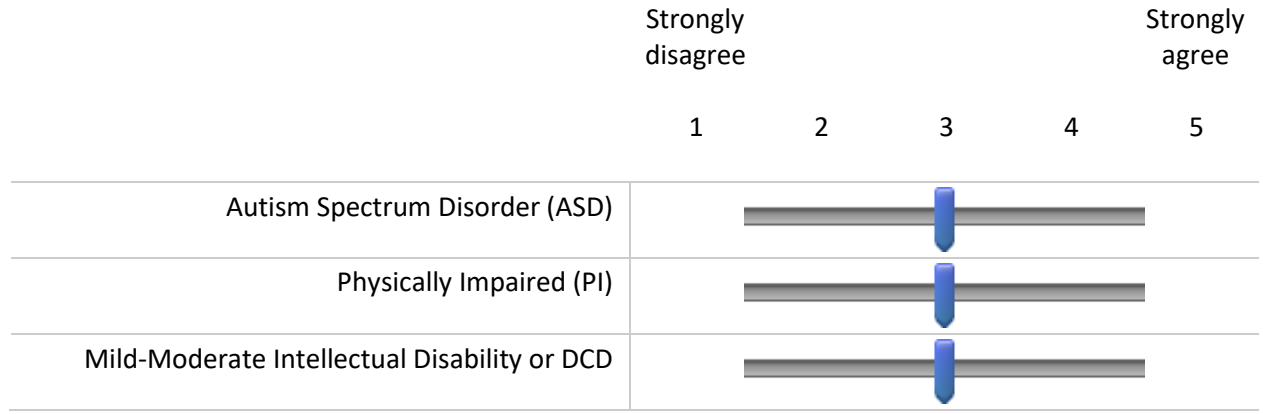
3=UNDECIDED

4=AGREE

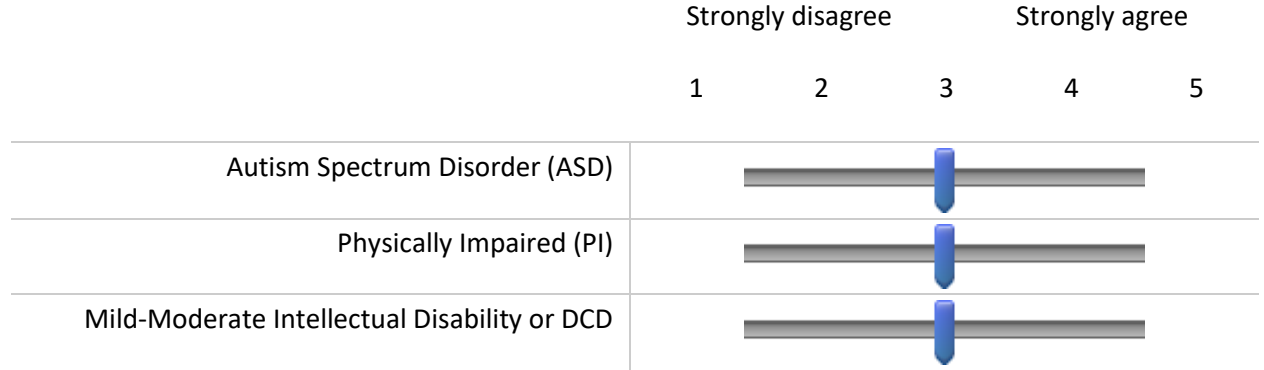
5=STRONGLY AGREE

=====

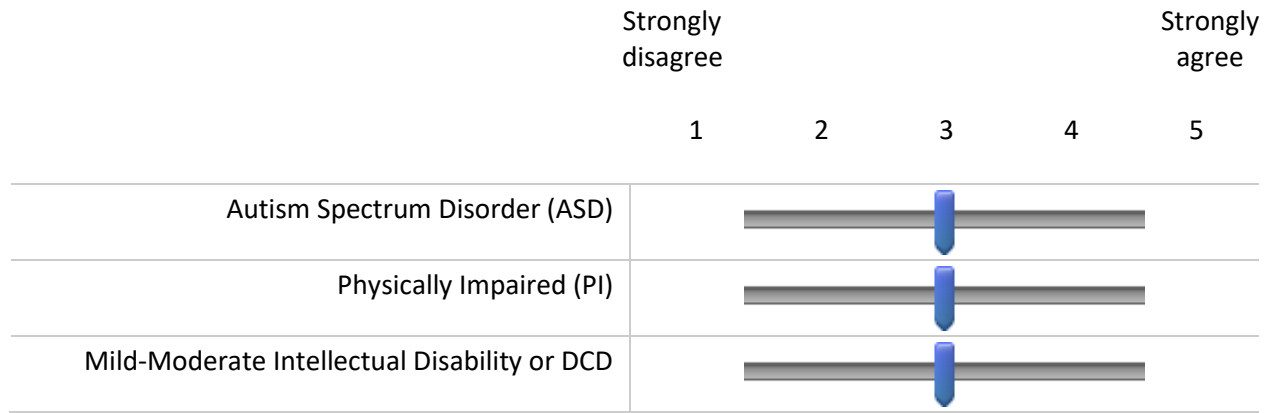
Q1. One advantage of teaching students labeled _____ in my regular physical education classes with nondisabled students is that all students will learn to work together toward achieving goals



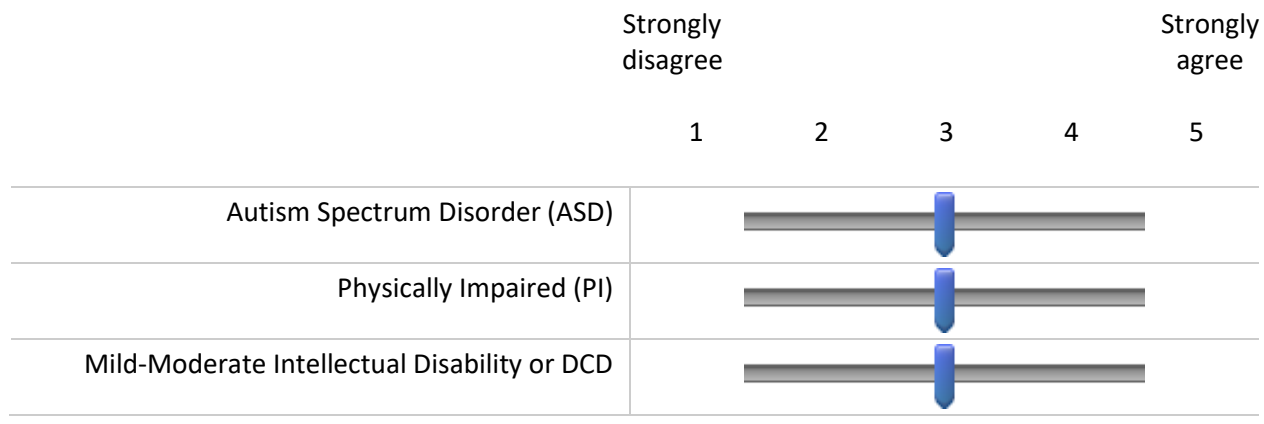
Q2. Teaching students labeled _____ in my regular physical education classes will motivate non-disabled students to learn to perform motor skills.



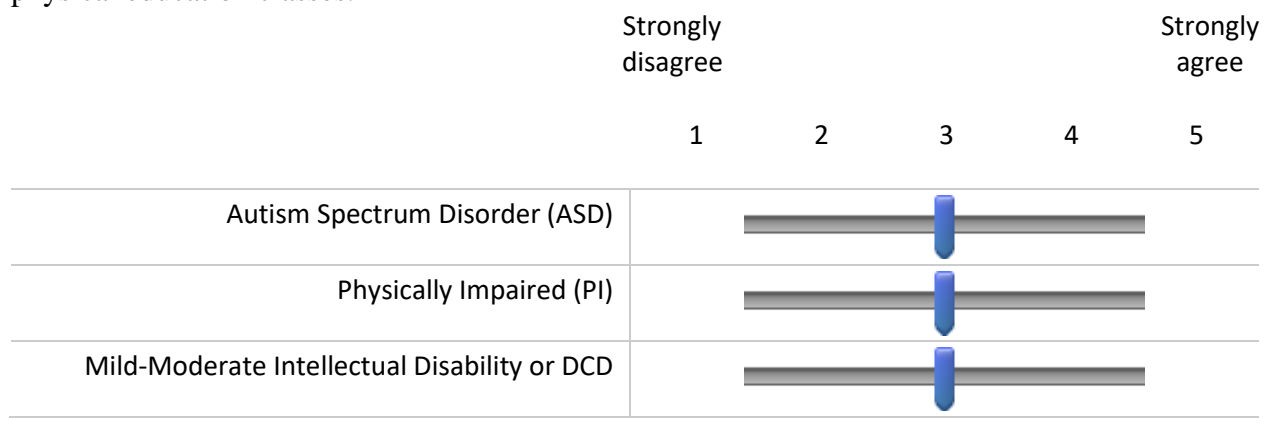
Q3. Students labeled _____ will learn more rapidly if they are taught in my regular physical education class with non-disabled students.



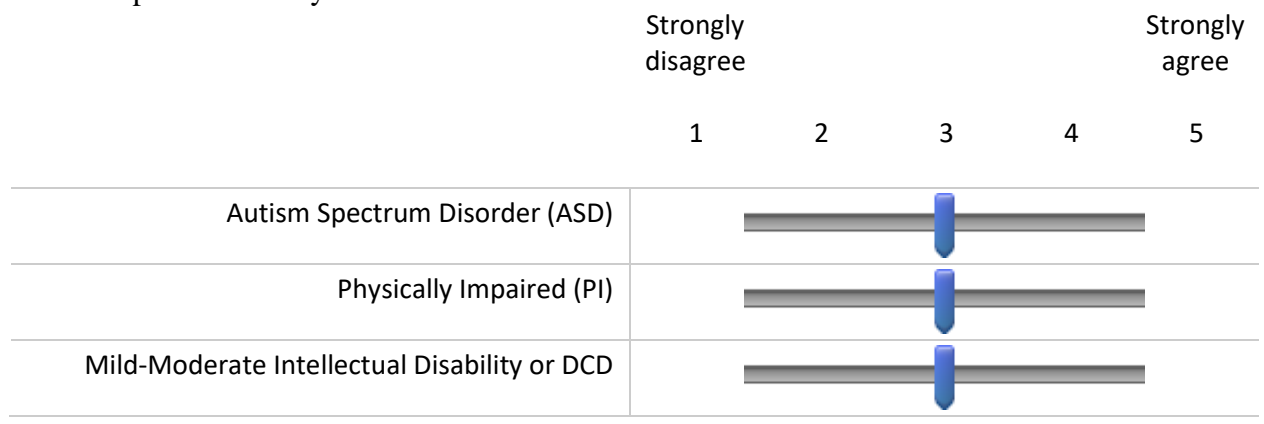
Q4. Students labeled _____ will develop a more favorable self-concept as a result of learning motor skills in my regular physical education class with nondisabled peers.



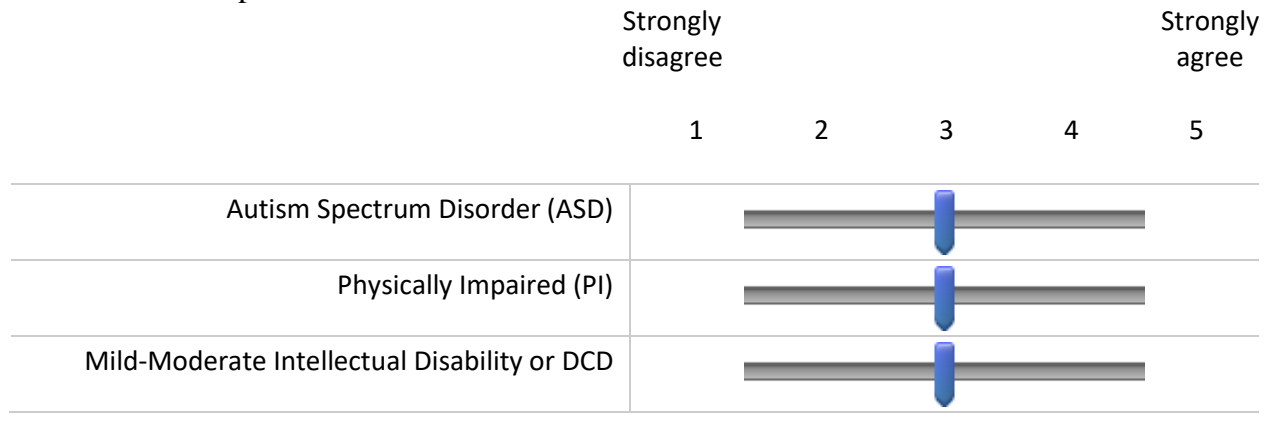
Q5. Students labeled _____ will not be accepted by their nondisabled peers in my regular physical education classes.



Q6. Students labeled _____ in my regular physical education classes with nondisabled students will disrupt the harmony of the class.



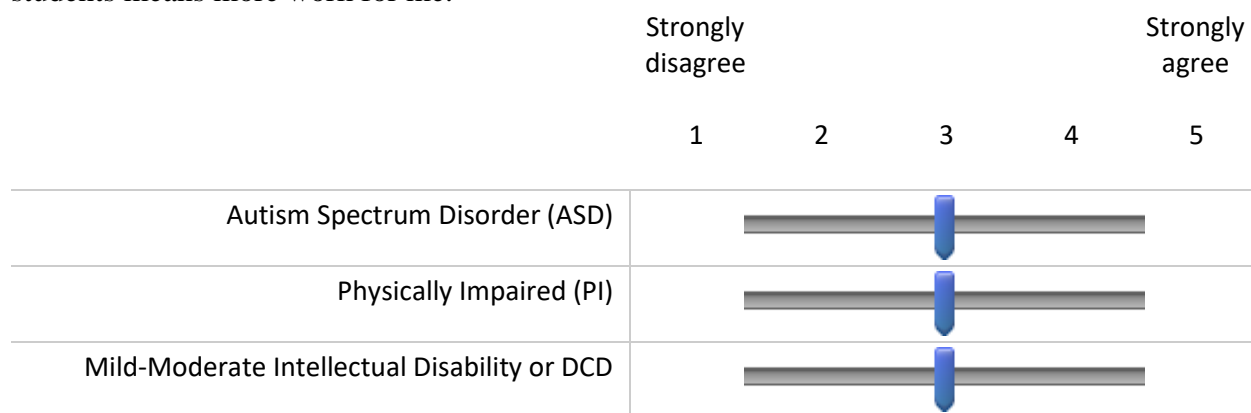
Q7. Having to teach students labeled _____ in my regular physical education classes with non-disabled students places an unfair burden on teachers.



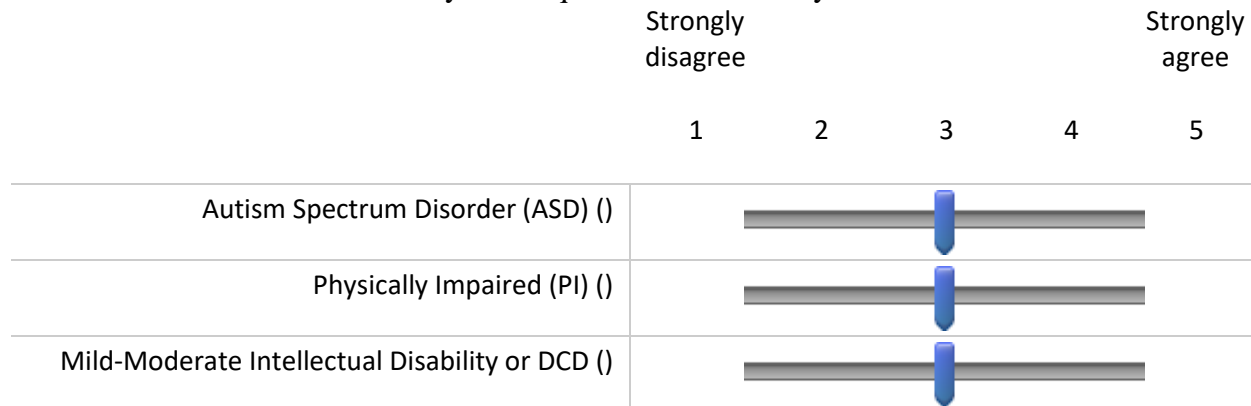
Q8 As a physical education teacher, I do not have sufficient training necessary to teach students labeled _____ with non-disabled students in my regular physical education classes.



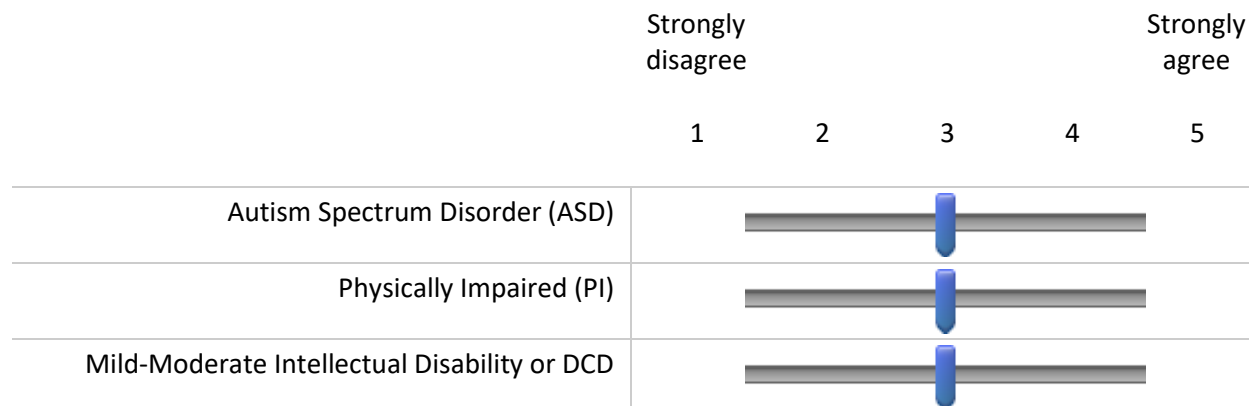
Q9 Teaching student labeled _____ in my regular physical education classes with non-disabled students means more work for me.



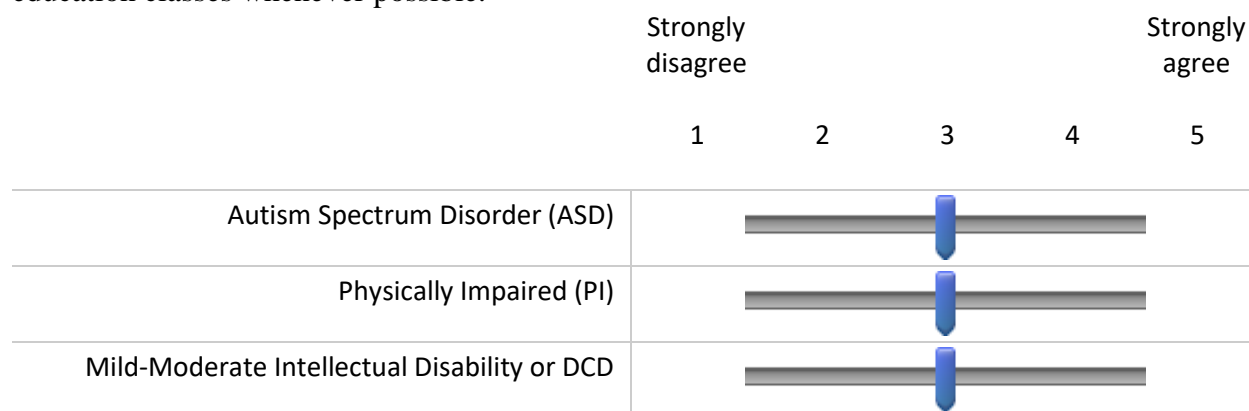
Q10. Students labeled _____ should not be taught in my regular physical education classes with non-disabled students because they will require too much of my time.



Q11. As a physical education teacher, I need more course work and training before I will feel comfortable teaching physical education classes with students labeled _____ with non-disabled students.



Q12 Students labeled _____ should be taught with nondisabled students in my regular physical education classes whenever possible.



Q13. Finally, would you please answer a few general questions about yourself?

Identify your **Gender**.

- Male (1)
 - Female (2)
 - Non-Binary (3)
 - Not Listed (4)
 - Prefer Not To Answer (5)
-

Q14. What is your **Age**? _____

Q15. Have you taken any **Adapted Physical Education** courses?

- Yes (1)
- No (2)
- In Progress (3)

Q16. How many courses? (**Yes** = number of courses taken, **In Progress** = 1, **None** = 0)

- Number of courses: _____

Q17. Have you taken any **Special Education courses**?

- Yes (1)
- No (2)
- In Progress (3)

Q18. How many courses? (**Yes** = number of courses taken, **In Progress** = 1, **None** = 0)

- Number of courses: _____

Q19. Have you had any **experiences teaching individuals with disabilities**?

- Yes (1)
- No (2)

Q20. How many **years** have you **taught individuals with disabilities**?

- Number of Years: _____

Q21. Do you have any **family members** with a disability?

- Yes (1)
- No (2)

Q22. Do you have any **close personal friends** with a disability?

- Yes (1)
- No (2)

Q23. Do **you** have a disability?

- Yes (1)
- No (2)

Q24. Rate the quality of most of your **typical experiences** teaching individuals with disabilities

- No experience (1)
- Not good (2)
- Satisfactory (3)
- Very good (4)

Q25. How **competent** do you feel teaching an individual with disabilities?

- Not at all (1)
- A little (2)
- Somewhat competent (3)
- Very competent (4)
- Extremely competent (5)

Q26. What is your Participant Number? _____

Appendix B
Authorization Letter

September 11, 2020

To Whom it May Concern,

This letter is to acknowledge and grant permission to Megan Johnson to conduct her dissertation research within the Health & Physical Education Department's course PE 452 Adapted Physical Education Fall 2021. The purpose of this study is to know how an introductory adapted physical education courses' embedded field experience transforms preservice physical educators' attitudes towards teaching students with disabilities.

I understand this research poses no physical risks to the participants and that all information gathered for the study is confidential and will only be used for the purpose of the study.

Sincerely,

Dawn Hammerschmidt, PhD, LAT, ATC

Department Chair – Health & Physical Education

218-477-2318

Appendix C

Informed Consent Letter

The Effectiveness of Practicums on Preservice Physical Educators' Attitudes and Self-Efficacy Toward Teaching Individuals With Disabilities.

Dear Participant,

Please review the following information as a guide for you to decide whether you wish to participate in the current study. If at any time during the study you wish to discontinue your participation, you may do so at will. Additionally, if you choose to leave the study, you will not be affecting your relationship with me, your grade, the department, or the university.

The purpose of this study is to explore whether a practicum within an undergraduate introductory adapted physical education course affects the participants' perceived attitudes toward teaching students with disabilities.

Data collection will occur throughout the semester-long course:

- Data collection will involve two surveys (i.e., PEATID-III)
 - Surveys will be at the beginning and one at the end of the practicum.
- Participants will keep a reflective daily journal and write a summary of their experience.
- Additionally, a semi-structured focus group interview will be conducted at the end of the semester.
 - Focus group interviews will be video-recorded (i.e., Zoom) and transcribed.

Individuals involved in the data collection will be myself and students enrolled in the course.

Do not hesitate to ask questions about the study either before participating or during the time you are participating. I am happy to share the findings with you after the research is complete, however, your name will not be associated with the research findings in any way. Only the researcher will know your identity as a participant.

There are no known risks and/or discomforts associated with this study. The expected benefits associated with your participation are the information about your experience assisting in developing, understanding, and improving instructional techniques for the Adapted Physical Education course, as well as having the opportunity to participate in a mixed-methods study.

Contact:

Principal Investigator: Dr. Boyd Bradbury, Department of Leadership & Learning

- Email: bradbury@mnstate.edu | Phone: 218.477.2471

Co-Investigator: Megan E. Johnson

- Email: megan.e.johnson@mnstate.edu | Phone: 218.205.1265

Whom to contact about your rights in this experiment:

Dr. Boyd Bradbury, Department of Leadership & Learning, at bradbury@mnstate.edu or 218.477.2471, or else you may contact Dr. Lisa Karch, Chair of MSUM Institutional Research Board, at irb@mnstate.edu or 218.477.2699.

Please sign below to indicate if you are willing to participate in this study. Your signature signifies that you have read the information, purpose, and procedures above and have given your consent to participate. As stated, you may withdraw your participation in the study at any time without penalty, even after signing this form. A copy of the signed consent form will be given to you to keep.

Participant Signature

Date

Researcher Signature

Date

Regards,
Megan E. Johnson

Appendix D

Interview Protocol

1. Describe your PE teachers growing up in Elem, MS or High School. Were any of them DAPE teachers or did any of your physical educators teach students with special needs specifically?
2. During your PE experiences growing up, describe how often would you see or interact with the school's DAPE teacher or students with disabilities?
3. Why did you go into the PE profession?
4. Prior to this experience, describe what you thought it meant to be a DAPE teacher?
5. Prior to this practicum, have you ever worked with a DAPE teacher (as a cooperating teacher) in any sort of field experience? Describe your role and the DAPE teacher's role in that experience.
6. Describe how the Adapted Physical Education coursework and practicum did or didn't prepare you for teaching students with disabilities?
7. What did you learn about being a DAPE professional that you didn't know prior to this course & practicum? Describe what professional attributes were modeled by your cooperating teaching during the practicum?
8. Did the Adapted Physical Education coursework (and additional SPED courses, if applicable) and practicum experience influence your views on DAPE and teaching students with disabilities? Please explain.
9. Do you feel you would be able to teach students with disabilities in a general physical education class? Please explain.

10. Did the Unified PE Curriculum & Course Design have any effect on your competence toward teaching students with disabilities? Please explain.
11. Have you considered getting your DAPE Certification, either prior to or after the Adapted Physical Education Course and Practicum? Describe what influences your decision?

Appendix E

Summary of Experience Report

1. Did you notice any changes in yourself, as a future physical educator, towards teaching students with disabilities? If so, what were they? What was the biggest change you have seen in yourself?
2. What did you learn about students with disabilities during this practicum at [research site] that will help you in future courses, in your student teaching, and in your future job?
3. Did the PE 452: Adapted Physical Education course content prepare you for teaching students with disabilities? Why or why not?
4. What did you learn from working with [the cooperating teacher] and the paraprofessionals while teaching at [the research site]? What did you learn from your [Midwestern university] peers and/or the [research site] students?
5. How did you actively engage or connect with your students each day to make them feel heard/seen, capable, confident, and knowledgeable? Did this skill improve from the beginning of the practicum to the end? Explain.
6. What was your biggest classroom management issue? Describe the issue and how you worked through it with the student(s). What could you have done to improve the situation OR prevent the situation? How can you better handle situations like these in the future, in your own gym?
7. How can you become a better advocate for Adapted Physical Education?

Appendix F

Qualitative Digital Filing System

Pseudonym	Participant Number	Summary of Experience	Data Collected	Daily Journal	Date Collected	Focus Group Interview	Date Collected
Amy	15	<u>x</u>	Dec 3, 2021	<u>x</u>	Dec. 3, 2021		
Allison	2	<u>x</u>	Nov. 30, 2021	<u>x</u>	Nov. 30, 2021		
Jake	14	<u>x</u>	Dec. 5, 2021	<u>x</u>	Dec. 5, 2021	<u>Zoom</u>	Dec. 14, 2021
Cristofer	10	<u>x</u>	Dec. 5, 2021	<u>x</u>	Dec. 5, 2021		
Taylor	5	<u>x</u>	Dec. 1, 2021	<u>x</u>	Dec 2, 2021	<u>Zoom</u>	Dec. 14, 2021
David	13	<u>x</u>	Dec. 14, 2021	<u>x</u>	Dec. 15, 2021	<u>Zoom</u>	Dec. 14, 2021
Carter	11	<u>x</u>	Dec. 4, 2021	<u>x</u>	Dec. 4, 2021		
Brad	8	<u>x</u>	Dec. 5, 2021	<u>x</u>	Dec. 5, 2021		
Josh	12	<u>x</u>	Nov. 30, 2021	<u>x</u>	Dec 3, 2021		
		MEMOS ALL DONE 1/1/22		MEMOS ALL DONE 1.2.22		MEMOS ALL DONE 1.13.22	
		Quirkos Coding - DONE 12.23.21		Quirko Coding - Done 1.2.22		Quirkos Coding - Done 1.13.22	

Appendix G
Qualitative Codebook

Sub-Research Question One

Theme	Theme/Code Name	Prefigured or Emergent	Definition	When to Use	When not to use	Example of a segment of text from study
SRQ1: What are the attitudes, intentions, and perceived competence of preservice physical educators enrolled in an introductory APE coursez toward teaching students with disabilities before and after a practicum experience.						
Pre-Practicum						
	Theme 1: Feelings of Apprehension	Emergent	Students reports of feelings prior to starting the practicum that are unfavorable and uneasy.	Nervous, Timid, Shy, Overwhelmed, Scared	Unprepared, Engagement with Students, Expectations	"On my first day of practicum, I was nervous, and I never knew someone personally with a disability. It was foreign to me."
	Theme 2: Stepping into the Unknown	Emergent	Students reports of feeling unprepared, not knowing what to expect, not knowing how to engage with students during start of practicum	Unknown Expectations, Unprepared, Engagement, Scared	Nervous, Shy, Timid, Overwhelmed	"Teaching students with disabilities in all honesty scared me a little bit. It scared me because I just didn't know what to expect. There were just so many what ifs in my mind."

Theme	Theme/Code Name	Prefigured or Emergent	Definition	When to Use	When not to use	Example of a segment of text from study
Post-Practicum						
	Theme 1: Valued Experience	Emergent	Students reports of how they felt during the practicum about the experience.	Personal feelings about the experience: Joy, excitement, gratefulness, rewarding, incredible	Feelings toward relationships with students, student successes, relationships with Stakeholder or Paras, Unified Students	"It was another incredible experience. I truly was upset that it was my last day."
	Theme 2: Connection	Emergent	Students reports of how they engaged with students during the practicum experience and what effects this had on their competence and attitudes	Relationships with Students, Student Success, Seeing Ability, Engaging with Students	Personal feelings of excitement, joy, rewarding, gratefulness about experience	"I really enjoyed getting to know all the students and working with them throughout the semester. Seeing them improve in different skills and just enjoy being in the gym playing the different games that [our Cooperating Teacher] had prepared for the day."

Sub-Research Question Two

Theme	Theme/Code Name	Prefigured or Emergent	Definition	When to Use	When not to use	Example of a segment of text from study
SRQ2: What influence did the APE course and practicum have on preservice physical educators' attitudes and perceived competence toward teaching students with disabilities?						
	Theme 1: Soft Skills	Emergent	Non-technical skills that relate to how you work, interact with others, solve problems and manage work.	All interpersonal, communication, leadership, problem-solving, interpersonal skills.	Content knowledge in psychomotor, cognitive	"In any classroom, especially ones that include students with disabilities the relationship aspect is key in providing an emotionally safe and healthy learning environment."
	Code: Communication	Emergent	Verbal and nonverbal communication skills as well as listening skills to interact with another individual or individuals	Non-verbal, verbal, conversations, listening, active listening, sharing	Other soft skills in the interpersonal category such as patience, assertiveness, self-confidence, empathy, positive attitudes	"I made sure to introduce myself to as many students as I could the first few times that we met...If a student wanted a hug, I was sure to give them a hug. I made sure to pick them up when I felt that they were getting discouraged. I would offer advice on how to correct something they were trying to accomplish."
	Code: Interpersonal Skills	Emergent	Tools individuals use to interact with one another.	Patience, Assertiveness, Self-Confidence, Positive Attitude, Empathy, Respectfulness, Collaborations, Leadership skills	Non-verbal, verbal, conversations, listening, active listening, sharing	"I found that participating with the students rather than observing or half-heartedly participating was the best way to engage the students and show them that I genuinely wanted to be a part of their lives."

Theme	Theme/Code Name	Prefigured or Emergent	Definition	When to Use	When not to use	Example of a segment of text from study
	Theme 2: Leading By Example	Emergent	Modeled exemplary behavior while teaching, working with or learning alongside of students with disabilities from cooperating teacher, university peers, peer partners, paraprofessionals.	Peer partners, cooperating teacher, paraprofessionals, university peers	Previous learning opportunities, prior experiences with SWD, outside influences (e.g., jobs)	I learned so much working with [the cooperating teacher]. She is such an awesome lady to work with. I learned that to be a Phy Ed teacher you just have to have fun with it. You also have to be patient.
	Code: Teachers & Staff	Emergent	Cooperating teacher and support staff members. Participants discussed the example they set as they observed the leadership of the professional staff.	Cooperating teacher, support staff, paraprofessionals	University peers, Unified Peer Partners, High School Students, Students without disabilities	"[The cooperating teacher] always greeted you with a smile (through the mask) when you arrived. Not only did she do that for the [participants] but the students in her class."
	Code: University & Unified Peers	Emergent	University peers and Unified Peer Partners. Participants discussed feeling inspired by their peers and also by the high school students without disabilities who led by example in the Unified PE curriculum.	University peers, Unified Peer Partners, High School Students, Students without disabilities	Cooperating teacher, support staff, paraprofessionals	"The general education students in the unified class were a big inspiration to me. The conversations I had with them revealed a passion that I know did not exist in me when I was their age. The lesson I learned from those students is that we are never to young, or too old, to start being passionate about something and making a difference. The love and tenderness these students demonstrate to the special education students in their class is something that I admire and strive to become like."

Sub-Research Question Three

Theme	Theme/Code Name	Prefigured or Emergent	Definition	When to Use	When not to use	Example of a segment of text from study
SRQ3: What components of the APE course and practicum best prepared TC's for teaching SWD?						
APE Course						
	Theme 1: Course Content	Prefigured	One semester-long professional preparation course designed to teach PETE TCs about how to teach students with disabilities in PE. Includes predetermined online course content from PE 452: Adapted Physical Education: readings, five exams, online discussion, case studies, presentations, research into disability diagnosis, reflection on Crip Camp documentary, lesson plan.	Case Studies, Presentations, Assignments, Reading, Exams, Notes	Practicum, hands-on, field experience	"The other content we covered like practicing writing lessons, case studies, the Crip Camp movie, and the disability presentations also were valuable material to me. I was glad we covered some heavy content because that content is what will be needed to be fully prepared to teach students in the future."
	Code: Valuable	Emergent	Material and content knowledge participants noted as having value in developing their competencies toward teaching students with disabilities.	Lesson planning, case studies, disability presentations, discussions (Crip Camp)	Reading, exams	"The other content we covered like practicing writing lessons, case studies, the Crip Camp movie, and the disability presentations also were valuable material to me."

Theme	Theme/Code Name	Prefigured or Emergent	Definition	When to Use	When not to use	Example of a segment of text from study
	Code: Empathy	Emergent	Material and content from the course (e.g., Crip Camp Documentary) that helped student develop an understanding and compassion for students with disabilities. thus, changing their attitudes.	Developing patience, empathy, compassion, understanding	Content knowledge, modifications and accommodations, lesson planning	"Something I would like to talk about was the "Crip Camp" documentary. Watching this documentary really made me feel something that I hadn't thought about before. We never really look at disabilities and think that someone with one, could be treated so poorly. The course content prepared me in a way to be more understanding and patient with those who have disabilities."
	Code: Growth	Emergent	Material and course content that allowed students to learn about various disability diagnosis and how to support and teach them as future physical educators.	Readings, case studies, lesson planning, presentations, accommodations and modifications	Observed leadership skills, soft skill development	"Doing case studies, presentations, discussions, lesson planning, and reading through the chapters helped me grow and understand so much more about students with disabilities and how to be able to teach them."

Theme	Theme/Code Name	Prefigured or Emergent	Definition	When to Use	When not to use	Example of a segment of text from study
	Theme 2: Relevance	Emergent	How the relevance of the course material to everyday life helped the participants to develop competency to being a successful teacher of students with disabilities.	Course content that was used in the practicum: knowledge of disabilities, modifications and accommodations	Non-applicable materials, less relevant and more geared toward course competencies vs. practiced in real life.	I would say that the course content prepared me very well. There were a lot of different aspects of disabilities that I had never heard of before started this class. It helped me with actually understanding. It wasn't a "hey here's the info, now do this homework", it was more of "hey here's this info, now apply it in a real-life situation.
	Code: Application	Emergent	How participants felt about course material that had application to real life situations.	Applicable, real-life, practice in practicum	Course material that isn't useful in the practicum setting, "busy work"	"I liked how everything we covered was very applicable to real life teaching and gave us perspective on what kinds of things students in our classes might be struggling with."
	Code: Connection to Practicum	Emergent	How participants felt about course material that was immediately applicable to the practicum	Lesson planning, accommodations and modifications, case studies, knowledge on disability types	"Busy work", reading, exams	"I think it is so important to have all these assignments and of course practicum because this is the only way to really dive into and learn what you need to know to be a successful teacher and peer."

Theme	Theme/Code Name	Prefigured or Emergent	Definition	When to Use	When not to use	Example of a segment of text from study
Practicum						
	Theme 1: Experiential Learning	Emergent	Experiences/Learning where TCs were hands-on in teaching experiences with SWD and Peer Partners.	Direct contact and experiences with students and cooperating teacher	Reading, assignments, exams, online discussions, reflections	"The hands-on experience gave me so much more confidence in my skills as a teacher in an adaptive physical education classroom.
	Code: Hands-On Experience	Emergent	Kinematic learning, learning by doing	Direct contact and experiences with students and cooperating teacher	Reading, assignments, exams, online discussions, reflections	"I think that everything being so hands-on was what the course content prepared me for."
	Code: Competence	Emergent	How competency is developed. Examples from experience in practicum that develops knowledge, self-efficacy and confidence.	Content Knowledge, applied learning, confidence in performance ability	Unsteadiness of certainty to teach students with disabilities, self-doubt, lack of content knowledge.	"I would say I became a better advocate for Adapted Physical Education by the sheer fact that I am more knowledgeable about Adapted Physical Education."
	Code: Confidence	Emergent	How students perceive their abilities to teach students with disabilities.	Want and willingness to engage with students, pride, self-described confidence	Feelings of apprehension, timid, shy, nervous, not sure.	"I know I am meant to teach, and it is something I am very excited about, but this experience strengthened those feelings."

Theme	Theme/Code Name	Prefigured or Emergent	Definition	When to Use	When not to use	Example of a segment of text from study
	Theme 2: Modeled Pedagogy	Prefigured	Instructional strategies, effective teaching, art of teaching	Inclusion teaching strategies, modifications, accommodations, soft skills, communication	Course content, knowledge from readings, assignments	"[The cooperating teacher's] mentorship was a big part of the reason why I feel so much more prepared in this area."
	Sub-Theme 1: Learning Environment	Emergent	Student-centered approach to teaching where an inviting and safe learning environment is created for all students with varied backgrounds, learning styles, abilities, and assets.	Being flexible, Being equitable, Working Collaboratively, Supporting Personalization, Embracing Diversity, UDL, Diverse Course Materials, Cultivating an Inclusive Climate, Building Rapport, Foster a Growth Mindset	Teacher-focused, rigid, non-adaptive, one teaching strategy,	"I also found myself becoming more invested in the relationship aspect of teaching. It really is much more important than we realize because although we talk about it in our classes, we mostly focus on the content we are presenting, but in any classroom, especially ones that include students with disabilities the relationship aspect is key in providing an emotionally safe and healthy learning environment."

Theme	Theme/Code Name	Prefigured or Emergent	Definition	When to Use	When not to use	Example of a segment of text from study
	Code: Relationship Building	Emergent	Intentional development of trust, care, growth and support with the strengths and needs of the diverse student in mind.	Working with students and staff, caring, patience, connection, attitude, communication, respect, trust, competence, cooperation, kindness, empathy, patience	Teaching styles, behavior management, developing routines	"Building relationships with your students not only helps them be better students by participating and learning but it also helps the teacher understand how to help and exactly where the student is at. I think that this taught me so [many] valuable lessons and just the love for students."
	Code: Classroom Management	Emergent	Developing a safe learning environment and positive class climate.	Routine, behavior management, communication with staff	Learning styles, multiple intelligence, diverse learners, relationship development	"I think [the cooperating teacher] having daily routines for these students is really important and I think it helps the students a lot knowing that it is a safe place and that students are welcome."
	Code: Embracing Diversity	Emergent	Accepting a range of identities and differences in a group of students in an educational setting.	Inclusivity, adapting, adjustments, multiple intelligences	Routines, behavior management,	"She works very well with these students, and you can tell that all of them love her. She treats all the kids with respect no matter what their disability is. She is very patient with all of them, and I can tell that she really enjoys what she is doing."

Theme	Theme/Code Name	Prefigured or Emergent	Definition	When to Use	When not to use	Example of a segment of text from study
	Sub-Theme 2: Inclusive Instruction	Emergent	APE teacher adaptations to pedagogy (i.e., pedagogical adaptations) to meet individual strengths and needs.	Modifications or adaptations to Task, Learner, or Environment (e.g., equipment)	Modifications or adaptations to curriculum goals, content or assessment	"I started to automatically think of ways to adapt certain games or activities to make them more inclusive to different types of students and learners."
	Code: Task	Emergent	Modifications made to activity, movement skills or learning tasks.	Rules, Prompts/Cues, Motor Skills, Time, Purpose of Game, Number of Players, Field of Play, Assistive Technology	Equipment, lighting, noise	"The students all chose their comfort level of shooting with 3 options, a hula-hoop in the bleachers, a basket on the ground or a normal basketball hoop."
	Code: Learner	Emergent	Inclusive strategies based on interpreting the learner.	Strengths, needs, learning style, assets, multiple intelligence, relationships, interests, prior knowledge and experience.	Rules, Prompts/Cues, Motor Skills, Time, Purpose of Game, Number of Players, Field of Play, Equipment, Space.	"They were always so willing and quick to change a plan because they were so in tune with the students and knew what they needed."
	Code: Environment	Emergent	Modifications made to environment	Equipment, space, lighting, noise, field of play, assistive technology	Changes to game rules, number of players, movement requirements, expectations	"They were working on underhand striking in the form of badminton. We used pool noodles and balloons for every one and worked on serving/ passing."

Theme	Theme/Code Name	Prefigured or Emergent	Definition	When to Use	When not to use	Example of a segment of text from study
Discrepant Cases	Free Fridays	Emergent	Contradictory view of modeled pedagogy (i.e., differentiated instruction) - free Friday comments from students who didn't get same experience as Monday-Thursday participants.	Student choice, no instruction, fun Friday, games, same as every other day	Modifications, instructional strategies, lesson planning, pedagogy	"I found out that since I am going on Fridays, it will always be a free day for the students. This is good and bad at the same time. It is bad because I won't really learn much about lesson planning and how to do that, but it is good because the students will always be in a good mood, knowing that they get to do what they want."

Sub-Research Question Four

Theme	Theme/Code Name	Prefigured or Emergent	Definition	When to Use	When not to use	Example of a segment of text from study
SRQ4: How did the preservice physical educators view the experience as relevant to their personal and professional development?						
Professional Development						
	Theme 1: Advocacy	Prefigured	Participants describe how they will further the inclusion and APE movement. Describing how they will advocate for students rights and skill development	Promoting APE, equity for students, observing marginalization of students with special needs, community involvement	Gaining more experience, continued learning, development of knowledge in course, furthering knowledge	"After being in this Adapted Physical Education class I think it changed the way I see physical education. I feel that I can be a better advocate and voice to people that everyone, no matter if they have a disability or not, they are able to get out and be physically active."
	Theme 2: Lifelong Learning	Emergent	What participant describe they need to continue to learn, how they can continue to develop in support of students and how they can continue to evolve in their experiences in APE	Gaining more experience, continued learning, development of knowledge in course, furthering knowledge	Activities or plans to be active in APE community	"I am more knowledgeable about Adapted Physical Education. I am a strong believer that knowledge is power and in order to advocate for something you have to have knowledge about that subject."
	Theme 3: Promoting APE	Emergent	How participants plan to get involved with APE, plans for sharing and educating others about inclusion in APE and students with disabilities	Activities or plans to be active in APE community, developing knowledge about APE, discussing the APE degree with future students, raising awareness	Gaining more experience, continued learning, development of knowledge in course, furthering knowledge	"By utilizing social media. That is such a powerful tool that is literally always in my pocket. Raising awareness for the kinds of services that are offered and the ones that should be offered would be so easy to do with a simple post."

Guiding Research Question – Interpretation of Findings (quan → QUAL)

Theme	Method	Source	Qualitative Theme
RQ: What effect does an embedded practicum in a modified PE class have on attitudes and perceived self-efficacy of preservice physical educators toward teaching students with disabilities in an inclusive general PE setting?			
Attitudes			
	Quantitative	PEATID-III Pre-and Post- Practicum Mean Scores	
	Qualitative	SRQ1	Connection
			Valued Experience
	Qualitative	SRQ2	Lead By Example
			Soft Skills
Self-Efficacy			
Competence	Quantitative	PEATID-III Pre- and Post-Practicum Perceived Competence Means	
	Qualitative	SRQ3	Course Content
			Modeled Pedagogy
Confidence	Qualitative	SRQ3	Experiential Learning
Advocacy	Qualitative	SRQ4	Promoting APE
			Lifelong Learning