

UNDERSTANDING THE PROCESS: HOW UNDERGRADUATE STUDENTS
DEVELOP CONSTRUCTS OF DISABILITY IN SERVICE-LEARNING: A
CONSTRUCTIVIST GROUNDED THEORY APPROACH

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DEDICATION

I am dedicating this dissertation to my family. Joe, you have always been my rock and support through anything life has thrown at us. You are genuinely my calm in every storm. Caleb, you have always taken life in stride and have a love for learning that I hope never fades. Chloe, you inspire me through witnessing your unfailing faith and desire to achieve any dream you envision for yourself. Dad, witnessing your work ethic as a child taught me that hard things are worth striving for, and, finally, in loving memory of my mom, who encouraged me to pursue this goal before she passed.

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Amy Renee Oliver

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Little research exists on how undergraduate students develop constructs or an understanding of disability during community-engaged service-learning experiences in adapted physical activity. Many studies have been conducted on attitudinal change in undergraduates working with individuals with disabilities. The researcher conducted a previous constructivist grounded theory study (*Reshaping Understanding*) that used Small Moment Reflections to develop a framework to identify student constructions of disability through a service-learning experience. However, the study determined two limitations: questioning the authenticity of students' reflections and the limited diversity of client disability.

This study was conducted to resolve the identified limitations and gather data to support or refute the *Reshaping Understanding* framework. Data was collected using semi-structured interviews and a new sample of Small Moment Reflections, which included a diverse set of disability diagnoses. Using the constructivist grounded theory, the researcher analyzed the samples from both data collection methods and compared each separately to the original framework.

Results from the data analysis supported the *Reshaping Understanding* framework in both studies. The new data supported undergraduate stages of change and threads of disability constructs with minor variations. Variations only existed when fine-tuning the coding within each stage and thread. Most codes fully supported the original

framework. Some previous codes were not supported and were removed, while newly identified ones that were heavily supported were added to the existing framework.

Since the stages and threads were consistent with the original framework, the researcher confirmed that a psychosocial process existed. The *Reshaping Understanding* framework transitioned into the *Cultivating Understanding* psychosocial process to better depict how the change process evolves metaphorically. While the threads remained unchanged in identification, the stages were re-identified.

The results of this study provide evidence that pre-professionals working with individuals with disabilities experience a change in understanding disability as they move through service-learning experiences. This offers pedagogical implications for teaching students about disability in the classroom and through experiential learning. Additionally, it paves the way for new research studies that may help further develop the *Cultivating Understanding* psychosocial process.

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LIST OF ABBREVIATIONS

Abbreviation	Term
APA	Adapted Physical Activity
GT	Grounded Theory
IWD	Individuals with Disabilities
PEATID III	Physical Educators Attitudes Toward Teaching Individuals with Disabilities III
SE	Self-efficacy
SL	Service-learning
SMR	Small Moment Reflections
TPB	Theory of Planned Behavior

Chapter One- Introduction

This chapter introduces the dissertation research, focusing on the significant role of kinesiology students' service-learning (SL) experiences when working with individuals with disabilities (IWD) in adapted physical activity (APA). It will then present a brief review of a recent grounded theory (GT) research project using student reflections and review research using student reflections to discuss the purpose of the present study. Finally, this chapter identifies the significance of utilizing GT to develop and enrich the data related to SL in APA.

Background

Individuals with disabilities are often perceived as people who need high levels of assistance, lack independence, and are unable to make positive contributions to society. Stereotypes and perceptions, as Roper (1990) stated, are “not treated as inalienable facts, but rather, a product of historical, social, economic, and psychological factors, serving particular purposes in a social system.” These systems preclude most individuals from seeking comfort over being uncomfortable. When placed in awkward situations, individuals tend to surround themselves with people with whom they identify rather than stepping out of their comfort zones and interacting with others, resulting in the marginalization of IWD (Burns et al., 1999). Reasons for the apprehension and negative attitudes towards IWD could be due to a lack of confidence as well as a lack of experience. Archambault and Milone (2020) suggest that this lack of confidence and experience points to the necessity of providing children and adults opportunities to engage with IWD to eliminate negative perceptions. Folsom-Meek et al. (1999) suggested that the “quantity and quality of hands-on experience with IWD are important

factors in attitude development,” which, when implemented effectively, can pay dividends in changing the perceptions of IWD.

Community-engaged placements play a pivotal role in changing perceptions. Community-engaged SL has been utilized for a long time; however, in the 1980s, it became more prominent and identified as an integral aspect of pre-professional experiences for a wide variety of majors in higher education (Eyler, 2009). Carver (1997) describes SL as having students apply learned knowledge during the course into authentic experiences, consciously integrating students’ experiences into the curriculum. These settings are templates for assessing students' understanding and ability to apply their knowledge.

Service-learning, a frequently used pedagogy in APA pre-professional training courses (Case et al., 2021), allows students to engage in firsthand experiences, apply knowledge during the experience, and reflect on the experience (Lee et al., 2020). These experiences, diverse as they are in APA, share a common objective: to provide students with a direct experience working with IWD, thereby increasing opportunities for students to meet course learning objectives and develop a transformative change in understanding and attitude toward disability.

In the field of APA, SL settings are often used to gauge student understanding of disability, otherwise known as attitudes towards IWD. Previous studies have examined physical educators’ attitudes toward IWD using a scale developed by Dr. Terry Rizzo. Many studies in APA and SL have focused on whether students have a positive change in attitude after participating in the experience, and most often, the result has been as expected. In conducting these studies, researchers have frequently identified a behavioral

theory to assess during the study. Theories that have been examined include the theory of planned behavior (TPB), self-efficacy theory (SE), and contact theory; however, none thoroughly considered the exact processes by which these changes in attitude among pre-professionals occur (Apache & Rizzo, 2005; Folsom-Meek & Rizzo, 2002; Hodge & Jansma, 2000; Roper & Santiago, 2014; Taliaferro et al., 2015). In some studies, data has been broken down to examine further demographical explanations (gender, age, experience level), perceived competence levels, and types of disabilities to identify precisely where the positive attitude change occurs.

A GT study by Roper and Santiago (2014) used focused interviews with pre-professionals to determine themes for their students' SL experience. The results of the study indicated key themes emerging throughout the student's experience in working with IWD, from students "dreading it," to saying they "got lucky (client assignment)," to identifying "preconceived attitudes and underestimating ability," to realizing the need for "hands-on and thinking on your own," and to describing the overall experience as "enlightening and rewarding" (Roper & Santiago, 2014). This study unravels a small amount of the process students go through throughout the SL experience and could be beneficial in explaining how other current and pre-professionals relate to experiences in teaching IWD. Perhaps further GT studies in APA pre-professional preparations would unveil key aspects explaining these students' negative and positive experiences.

In a recent study focused on psychosocial change in pre-professional kinesiology students who completed an SL experience in APA with IWD, a theoretical framework (hereafter to be referred to as *Reshaping Understanding*) was developed suggesting students experience change throughout the entirety of the experience through several

different avenues. Utilizing a constructive GT approach by analyzing student SL reflections, Oliver and Stanton (2022) found that during a six-week community-based SL experience, students initially were very apprehensive when beginning; however, by the end of the experience, the students expressed gaining a better understanding of disability and were thankful to have had the opportunity to participate in the APA clinic in which they felt hesitant to begin.

Small moment reflections (SMR) were first described in Bleicher and Correia (2011), in which a small moment writing method was adapted from Calkins and Oxenhorn (2003), who designed this strategy for children to improve their narrative writing skills. After each APA clinic session, participants were required to identify a moment during the clinic that was significant to them, describe the moment, and reflect on why the moment was so meaningful to them. Bleicher and Correia (2011) suggested that this type of reflection requires higher-order thinking skills and forces students to examine a moment that may have been forgotten. Researchers identified key threads throughout the clinic across all participant SMRs. The results suggest a process pre-professional students experience throughout the SL experience, which can help categorize crucial information to improve and enhance student experience and learning.

Statement of Problem

Current literature discusses changes in attitudes when students work directly with IWD. Behavioral theory and demographic information have driven the methodological approach in these studies, resulting in data supporting positive change in pre-professional students' attitudes after an experience in working with IWD, but reasoning for attitudinal change has not been established (Folsom-Meek & Rizzo, 2002; Roper & Santiago, 2014;

Hodge & Jansma, 2000; Lee et al., 2020). In a study by Folsom-Meek and Rizzo (2002), perceived competence was identified as a pivotal contributor to the change of attitude among persons working with IWD. A study by Taliaferro et al. (2015) suggested SE as a potential theory to understand the shift in mentality among pre-professionals working with IWD.

When studying pre-professionals working with IWD, pedagogical implications of how direct contact experience can change pre-professional's understanding of disability should be considered. All facets of the experience must be regarded as to gain the most insight. Instruments related to attitude, perceived competence, and self-efficacy can show part of the picture. However, by being able to identify the psychosocial process, pre-professional students' experiences can lend valuable information in best practices toward changing beliefs and bias toward IWD and identify critical stages of learning that can impact students' understanding of disability. While ample studies have been conducted on how pre-professional attitudes change towards IWD through APA experiential learning, this study further examined the process of change, specifically related to students' understanding of disability as they engaged in SL. By reviewing data through interviews and SMRs, the author hoped to expand on the *Reshaping Understanding* framework to provide a clearer picture of how students shape their understanding of disability.

Purpose of the Study

Utilizing a constructivist GT approach, this study aimed to gather new data and expand on existing data related to the *Reshaping Understanding* framework conducted by the researcher with some adjustments. Data collection included students participating in

four-semi-structured open-ended interviews with an individual neutral in the study and a new sample of SMR submissions. Two identified limitations were discussed in the *Reshaping Understanding* study.

One identified limitation was that students were uncomfortable and inhibited in writing small-moment reflections because they were completed as a graded assignment. Students may have wanted to avoid the researcher's judgment or repercussions from grading. As a result, open-ended interviews were conducted to allow students to be more articulate and elaborate on their experiences related to the clinic. This provided an opportunity to compare the interview data with the *Reshaping Understanding* data to expand upon the initial framework.

The other limitation was whether the previous study included enough of the various disabilities represented by students' SMRs. Due to the primary focus of selecting participants who worked with clients who attended the clinic regularly, ensuring the sample included diverse client disabilities did not remain at the forefront of the study. This was an identified potential limitation acknowledged after the previous study. By examining a more inclusive sample of SMRs, the *Reshaping Understanding* framework, this study provides a more comprehensive sample of students working with clients of different disabilities.

This study aimed to further the data collected previously examining psychosocial change in students through actively engaging in an APA community-based SL experience. Compared to the previous research study, data collected within this study enriched the previous framework, allowing for the development of an identified psychosocial process.

Research Aims

This study was guided by two research aims to support and deepen the current theoretical framework by answering the following:

1. Determine how data obtained for this study support or refute the *Reshaping Understanding* framework.
2. Refine or modify the *Reshaping Understanding* framework using data from this study.

Significance of Study

Ample studies have examined how pre-professional student attitudes change through experiential SL in adapted physical activity; however, this study considers qualitative methods focused on the psychosocial process of attitude change for pedagogical application. A change in attitudes can be assessed using scales of self-efficacy, perceived competence, or the Physical Educators Attitude Toward Teaching Individuals with Disabilities III (PEATID III) developed by Rizzo (1993). Still, more information needs to be gained by conducting these studies. Using constructive GT, the researcher recognizes that the data could differ concerning location, point in time, or researcher interpretation if replication of the study were to occur; however, knowledge gained from the study could be utilized to establish best practices for instructors and provide insight on how to assist students throughout their clinical experience. The results of the comparison of this study and *Reshaping Understanding* could pinpoint many possibilities for enhancing pedagogical practices and further research to better understand the psychosocial process pre-professionals experience during a SL or experiential learning experience.

The literature review in Chapter Two identifies pertinent literature related to the problem statement and the study's purpose to support the study's significance. Topic areas included in the literature review were selected based on vital information related to the SL components and past SL research conducted inside and outside the APA focus. Major topics discussed in the literature review include the historical perceptions of IWD, behavioral theories researched in APA SL experiences, contact theory, which could align nicely with SL experiences, the history of and components of SL, the importance of critical reflection in SL, and information about SMRs.

Chapter Three addresses the methodology of this research study and further discusses the study's purpose and research questions, which include detailed explanations of the research design, the epistemology behind the research study, and the study's theoretical framework. It progresses to discuss GT methodology and moves into the procedures of the study, which include the setting, sampling procedures, data collection and analysis methods, data coding, conceptual and theoretical sampling, trustworthiness, ethical considerations, and finally, a statement on researcher subjectivity.

Chapter Four provides an analysis of the data, including a review of the research questions, analysis, comparison of the two types of data collected (SMRs and semi-structured open-ended interviews), and an examination of whether the newly analyzed data enriches existing data from a previous related study. More specifically, chapter four discusses whether open-ended interviews and SMRs show similar development in the process of change students encounter during SL. In addition, findings on whether the open-ended interviews support the previous theoretical development created using only SMRs are presented.

Chapter Five reviews this study's aims and how they were achieved, demonstrating credibility and dependability. It compares the study's results to theories used in previous APA studies. Methodological and pedagogical implications are presented, strengths and limitations are identified, and recommendations for future research are presented.

Chapter Two- Literature Review

Experts in GT studies have conflicting thoughts regarding when and how a literature review should be conducted. Glaser and Strauss (1967), who advocated for classic grounded theory (GT), asserted that literary research should be delayed until after the completion of analysis to avoid seeing the analysis through earlier positions and mindsets- otherwise known as ‘received theory.’ The premise of delaying a literature review is to prevent using predetermined ideas and placing them into the developing study (Charmaz, 2014). However, it is anticipated that researchers already have viewpoints and field expertise before determining a research topic, which is difficult to avoid. Thornberg (2012) argues that delaying literature review lacks information related to existing theories and previous studies that could benefit researchers, which he calls ‘informed grounded theory.’ He states:

“What I call informed grounded theory refers to a product of a research process as well as to the research process itself, in which both the process and the product have been thoroughly grounded in data by GT methods while being informed by existing research literature and theoretical frameworks. ... In contrast to the classic GT tradition, but in accordance with the constructivist GT tradition, an informed grounded theorist sees the advantage of using pre-existing theories and research findings in the substantive field in a sensitive, creative, and flexible way instead of seeing them as obstacles and threats” (p. 250).

Reviewing literature is a fluid and continuous part of conducting GT. In the initial phase of literature research, pre-existing studies and theories could be helpful to the researcher in the early stages of data collection; however, as data analysis begins, emerging themes may be identified that result in the researcher needing to refine the literature review and examine other constructs and data to support their work. This literature review identifies critical factors in this research study and explains how these factors represent crucial information that helps establish the study’s significance.

Additionally, this study focuses on identifying changes in how students process their service-learning experience based on critical reflection, which will be discussed in more detail later in this chapter. This literature review includes information on past historical perspectives of IWD, previous research studies conducted on attitudes of pre-professionals in working with individuals with disabilities (IWD) in APA, contact theory, which is a popular theory studied in conjunction with service-learning, the components of SL which are directly related to this project, and different types of critical reflection- a crucial component of service-learning.

Historical Perceptions of Individuals with Disabilities

For decades, IWD and their families have fought for inclusion and appropriate accommodations to allow for meaningful participation in society; however, negative attitudes and stereotypes continue to exist, creating significant barriers for IWD to be able to access community services and feel integrated into society (Lawson et al., 2017). The World Health Organization (2007) identified societal attitudes as a significant contributing factor in IWD's ability to participate in society fully, and Werner et al. (2012) suggested that a lack of knowledge and understanding of disability leads to stereotypes and other forms of bias. Allport (1954) described prejudice as a pattern of resentment in social environments, which is usually toward groups or against members of that group.

In 2015, the Centers for Disease Control estimated that 53 million adults in the United States have a disability. While efforts have been made to ensure IWD have accessible services and can participate within their community through the Americans with Disabilities Act, plenty of work needs to continue to educate the general population

about disability and to eliminate stereotypes, misconceptions, and prejudice (Scior, 2011). One method identified as successful under specific and meaningful conditions is repeated interpersonal and intergroup contact between people with and without disabilities society (Lawson et al., 2017). As higher education prepares young adults for careers in many fields and civic engagement, undergraduate students must have professional experiences to learn about and potentially impact perceptions and beliefs concerning IWD (Archambault & Milone, 2020). Most young professionals in any profession will have contact with IWD, whether in personal or professional settings (Olkin, 2002; Archambault & Milone, 2020); implementing service-learning experiences for undergraduate students is essential to higher education.

Attitudinal Research Towards Individuals with Disabilities

Attitudes are believed to be essential in physical educators' response toward teaching students with disabilities (SWD) in physical education (Folsom-Meek & Rizzo, 2002). Tripp and Sherrill (1991) identified cognitive, affective, and behavior as the three components determining attitude. These represent a person's beliefs about an object, the emotions related to the object, and the tendencies of action with the object. In this case, the object would be the attitudes toward working with IWD. Lee et al. (2020) state, "Attitudes refer to a person's tendency to act in a certain way and are often influenced by disposition and perceptions acquired from specific experiences as a member of a group or culture" (p. 366). According to Carver (1997), student perceptions can be influenced by attitudes, beliefs, habits, emotions, and prior knowledge. Hodge (1998) suggested that the attitude-behavior relationship often depends on knowledge, past experiences, and recently attained knowledge. A study conducted by Hutzler (2003) also identified

previous experience, course preparation, and perceived competence as crucial indicators for students' attitudes in working with IWD, while Folsom-Meek et al. (1999) added that frequency and quality of hands-on experience are essential aspects in developing positive attitudes toward working with IWD. Case et al. (2021) agreed with previous studies that attitudes inform beliefs, behaviors, social interactions, and inclusion of IWD.

Various other studies have identified a lack of teacher and pre-professional preparation as a primary cause of lack of perceived competence and negative attitudes related to teaching IWD (Taliaferro et al., 2015), leading to the suggestion that pre-professionals need to be better prepared by universities (Hodge, 1998). One study found that students with majors other than physical education (special education, therapeutic recreation, pre-occupational therapy, and pre-physical therapy) had more positive attitudes, consequently suggesting universities need to be more proactive in including disability information in curriculums for both pre-and non-teaching majors (Folsom-Meek et al., 1999). The same studies that identified perceived competence as a significant predictor of attitude change also acknowledged previous experience as playing a pivotal role in favorable attitudes toward working with SWD in the physical education classroom (Apache & Rizzo, 2005; Folsom-Meek et al., 1999; Hodge & Jansma, 2000; Roper & Santiago, 2014). Due to these findings, it is feasible to consider SL with direct contact in working with IWD in physical activity environments as a necessary component to improve pre-professional student attitudes and perceived competence when teaching adapted physical education/activity.

Apache and Rizzo (2005) discussed the importance of physical education teacher education programs in providing information on disability, experiential involvement with

IWD, and discussion about their experience. A reflective experience study identified perceived competence, previous experience, and knowledge as components of successful change for pre-professionals. Results from the Lee et al. (2020) study were representative of other studies identifying that direct contact and personal interaction with IWD improves attitudes. Results from these studies identify the necessity of pre-professionals to have learning opportunities in working with this population to help develop professional disposition and perceptions during undergraduate training and develop a positive attitude toward working with SWD (Lee et al., 2020).

Theories Examining Attitudes Toward Individuals with Disabilities

Theory development is a continuously evolving model (Rescher, 1996). They often result in extracting concepts from other theories and incorporating new theoretical paradigms. Notably, theory drives practice (Hart et al., 2014). Research regarding the experiences and effects of SL on future professionals is abundant, with most of it conducted through quantitative studies. Most of these studies use a theoretical rationale for the resultant outcomes of SL. Repeated research suggests there may be more to the experience than just providing theoretical evidence to explain the impact of hands-on experience.

Quantitative research on SL, specifically in APA, has often included assessing the self-efficacy (SE) theory and the TPB. With the substantial focus on the results of SE and TPB theories, little effort has been exerted on how students evolve throughout their experiences. Another behavioral theory, contact theory, has not been utilized in many studies related to APA. However, implementing the concepts of contact theory into SL could help identify the change in how individuals construct disability in APA.

Self-efficacy Theory

Self-efficacy theory is one of the most professionally researched theories concerning what drives behavior change, and results have shown that higher levels of self-efficacy result in an individual's increased effort and willingness to persevere through challenges (Taliaferro et al., 2015). While often used as a theoretical premise, there is a lack of research on how SL experiences in adapted physical education/activity can affect a future professional's self-efficacy (Taliaferro et al., 2015). One study conducted by Lee et al. (2020) identified self-efficacy as one of the most critical components of attitudes toward the inclusion of IWD in physical education classes. The results of a study conducted by Taliaferro et al. (2015) demonstrated that a successful pre-professional experience, which included coursework in adapted physical education and practicum-based experience, was vital and resulted in higher levels of self-efficacy and more positive beliefs toward IWD. What is unclear is the variables of experiential learning that best increase self-efficacy beliefs in pre-professionals working with IWD.

Theory of Planned Behavior

Most of the research on pre-professional preparation in APE/A has been conducted using the theory of planned behavior (developed by Icek Ajzen and Martin Fishbein in 1980) and focused on behavioral intention or, more specifically, the attitudes toward teaching SWD. Roper and Santiago (2014) concisely described the two constructs, suggesting that behavioral intention is an outcome of attitude, and the subjective norm includes expected judgments from others. Excluding the subjective norm and perceived behavioral control, it is still being determined if the TPB should be

considered a reliable method of determining attitudes toward IWD, even though previous studies in APA utilizing this theory in research instruments have been validated.

The APA field has long been interested in what drives attitudinal changes in teaching students with disabilities. The most used instrument is the Physical Educator's Attitude Toward Teaching Individuals with Disabilities III (PEATID III), developed in 1983 by Terry Rizzo and later modified in 1993. Early research validating this instrument suggested a positive change in attitudes toward IWD.

Folsom-Meek and Rizzo (2002) conducted a study to examine the reliability of the Physical Educator's Attitude Toward Teaching Individuals with Disabilities III (PEATID III) using the TPB attitudinal component. However, they did not include the subjective norm component due to the legal requirement of teaching SWD in the classroom. The study utilized four different components, including (a) the effects of teaching SWD on student learning, (b) the need for special academic preparation to teach SWD, (c) teacher beliefs about inclusion in adapted physical education, and (d) the effects of teaching SWD on teachers (Folsom-Meek & Rizzo, 2002). Each component was tested using a separate assessment, and the term "disability" was broken into categories, including cognitive, sensory, learning, physical, and behavioral disability. The study resulted in internal reliability of .88 using Chronbach alpha, which revealed high reliability and has been replicated similarly with both previous and current versions of PEATID III. It suggested that pre-professional attitudes were more favorable toward teaching students with learning disabilities rather than students with physical or behavioral disabilities (Folsom-Meek & Rizzo, 2003; Hodge & Jansma, 2000; Roper & Santiago, 2014). However, perceived competence played the most prominent role in

determining pre-professional attitudes when working with SWD. Several other studies identified perceived competence as the most significant predictor of attitude change toward teaching SWD in physical education as well (Apache & Rizzo, 2005; Folsom-Meek & Rizzo, 2002; Hodge & Jansma, 2000; Roper & Santiago, 2014).

Even though perceived competence was identified as the most significant predictor of attitude change, it is essential not to ignore the possibility that attitudinal impact toward working with IWD could be related to the type of disability. Folsom-Meek and Rizzo's (2002) study identified that attitudinal change was more evident in students who worked with individuals with learning disabilities rather than physical or behavioral disabilities. As a result, further examination of this data could prove beneficial in determining whether the type of disability does play a factor in student attitudes.

Contact Theory

Allport (1954) described Contact Theory as changing negative attitudes and prejudices toward minorities under appropriate conditions. These conditions focused on properly managing contact between both groups and ensuring that conditions for contact were favorable. Contact between groups must be long enough to decrease anxiety and to feel more comfortable with one another. The intergroup contact must be positive-avoiding insults, arguments, physical violence, and discrimination- otherwise, the contact may not reduce the negative bias among groups. The societal conditions in the 1950s had few means of theoretically examining inequity, and Allport's idea of "conditions" was based upon assumptions at the time. In short, Contact Theory is heavily contextualized, given societal constructs at the time.

Contact theory was proposed to describe how individuals change their previously held beliefs and misconceptions about a population relative to their exposure to that specific population. For the change to occur, individuals need to be educated about groups they perceive as different, using a variety of approaches to allow individuals to gain a better understanding, dispel stereotypes, and facilitate positive beliefs (Allport, 1954). McGee Banks & Banks (1995) identified this type of education as equity pedagogy, which they generally defined “as teaching strategies and classroom environments that help students from diverse racial, ethnic, and cultural groups attain the knowledge, skills, and attitudes needed to function effectively within and help create and perpetuate, a just, humane, and democratic society” (p. 152). Allport (1954) also believed in direct experience to further initiate change, stating:

“The trend of evidence favors the conclusion that knowledge about and acquaintance with members of minority groups make for tolerant and friendly attitudes. The relationship is by no means perfect, nor is it clear whether the knowledge causes friendliness or whether friendliness invites the acquiring of knowledge. But that there is some positive relationship is evident” (p. 269).

Thus, knowledge about minority groups needs to come from credible sources and through direct contact. In the 1950s, contact theory focused on reducing racial prejudice and school desegregation. Additionally, there was a focus on reducing discrimination against different religious denominations. Contact theory in the 21st century has evolved and has highlighted flaws related to Allport’s original theory. Initially, attitude change was expected to occur naturally under appropriate conditions; however, multiple studies suggest this may not always be true. Pettigrew and Tropp (2006) suggested appropriate conditions to be facilitators of change rather than being necessary to establish change. While the focus of discrimination of the 1950s has been reduced, it has not been eradicated, and conflict continues to evolve in different ways (white privilege, holy wars,

sexual identity, beliefs about disability, etc). The continuously changing conflicts today challenge the validity of whether contact theory effectively reduces injustices.

As mentioned earlier, contact theory can be described as a method to change negative attitudes and prejudices toward specific people or groups under appropriate conditions. These conditions include (a) equal status between in-group and out-group members (individuals viewed as minorities or, (b) pursuing common cooperative goals, (c) meaningful intergroup interaction, and (d) support of authorities (Allport, 1954; Pettigrew & Tropp, 2006; Tripp & Sherrill, 1991; Fishbein, 1996); Slininger et al., 2000).

Equal Status

According to Allport (1954), stereotypes and prejudices will likely remain if members do not maintain equal status. Equal status can be challenging to define but can be described as one individual not having a higher status than the other, resulting in both benefitting from the experience (Pettigrew, 1998). When societies insinuate substantial superiority over one another, a meager attempt at creating equal status is potentially harmful, does not evoke change, and creates more conflict (Pettigrew, 1998). However, when individuals in diverse groups perceive themselves as equals in status, they are more likely to be favorable to one another (Allport, 1954). Past research supported this contention and stressed the necessity of one individual not perceiving superiority over another (Cohen & Lotan, 1995; Cohen, 1982; Riordan & Ruggiero, 1980; Robinson & Preston, 1976); however, more recent studies have suggested that equal status does not automatically result in decreased prejudice (Pettigrew & Tropp, 2006; Paluck et al. (2019).

Pursuing Common Cooperative Goals

Common cooperative goals represent the importance of establishing agreeable and beneficial outcomes from intergroup contact. Both parties must agree on mutually acceptable activities that will benefit both. Throughout the experience, the partners could share interests and identify independent and partner goals. Identifying goals together allows for mutual support and the beginning of meaningful interaction. Without cooperative goals, one party may believe they exert dominance over the other, impeding the experience's goals.

Meaningful Intergroup Interaction

Perhaps the most crucial piece of contact theory is ensuring intergroup interaction is cooperative and meaningful to create noteworthy results. Allport (1954) emphasized the importance of meaningful contact as these personalized interactions allow both parties to gain knowledge and improve their understanding of one another, potentially leading to mutual feelings of respect. Allport (1954) theorized that as people engage in repeated interaction with individuals different from themselves and learn more about each other, prejudices and misconceptions begin to dissipate. Repeated interaction can take an experience that initially caused uneasiness and make it comfortable and intimate, eventually resulting in friendship and camaraderie.

Support from Authorities

Support from authorities signifies leaders who focus on individuals having positive and meaningful contact throughout the experience. Advocates for outgroup members tend to model acceptance, dispelling the misconceptions about out-group members (Pettigrew, 1998; McKay, 2018)). Archambault and Milone (2020) agree with

this concept: “For the course to be successful, the instructor, the special education teacher, and community partners demonstrate values of acceptance and inclusion. All stakeholders highlight supportive, friendly interactions between group members. (p113).” Without prominent support from advocates for the out-group, paving the way for change will be difficult (Pettigrew, 1998).

When considering why attitude change has been validated with the TPB and PEATID III studies, it explains attitude change. However, it is not descriptive, while contact theory has been descriptive yet unsubstantiated. Studies conducted by Roper and Santiago (2014) and Lawson et al. (2017) suggested that using this theory does decrease stereotypical and biased thinking. However, the same study by Lawson et al. (2017) and another study by Hutzler (2003) reveal inconclusive results that contact theory alone can result in attitude change. Tripp and Sherrill (1991) posit that the result of these favorable or unfavorable conditions determines how individual attitudes shift in a positive or negative direction. Various other studies have shown that contact theory has improved attitudes toward people with intellectual or physical disabilities (Barr & Bracchita, 2008; Block & Zeman, 1996; Kalymon et al., 2010; Murata et al., 2000; Yuker et al., 1970) when each of tenets of contact theory is present. Studies that have measured the results of intergroup contact have used different methods, been conducted in different geographical and cultural situations, and used diverse participants for each survey. This could be a potential factor for the inconclusive results. With so many other variables at play when examining the validation and effectiveness of contact theory, it seems justified that the results remain inconclusive.

Service Learning

Service learning began to be considered an integral part of college students learning at many universities in the 1980s to bridge the gap between students' application of knowledge and the value of service to the community (Felten et al., 2006). It was not until 1984, when David Kolb transformed Dewey's six-step method of development into a learning process consisting of four phases- that experiential learning began receiving serious attention and consideration in higher education (Meaney et al., 2012). As a result of funding from the Corporation for National Service and Campus Compact and "Learn and Serve America: Higher Education," service-learning experienced tremendous growth in the 1990s (Bringle & Hatcher, 1999). In the 1990s, Campus Compact estimated that approximately 12,000 service-learning courses were available to students on its member campuses, identifying service-learning as an academic establishment (Bringle & Hatcher, 1999).

Before coining the term 'service-learning,' Dewey (1934) discussed the importance of experiential education, which allows students the autonomy to work with clients, creating a sense of belonging/ relationships and improving students' perceived competence working within communities. It has been reasoned that it was conceptualized because of John Dewey's educational and social philosophy and David Kolb's thoughts on experiential education (Felten et al., 2006). Dewey believed valuable student learning results from students' interactions with community experiences, also known as the "Principle of Interaction" (Carver, 1997), and those past experiences influence emotions, attitudes, and perceptions of future experiences, termed the "Principle of Continuity" (Carver, 1997).

Service-learning is defined as:

"a course-based, credit-bearing educational experience in which students (a) participate in an organized service activity that meets identified community needs and (b) reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility" (Bringle & Hatcher, 2000, p. 274).

It can be further described as both a process and an outcome that integrates students' experiences into the curriculum, allowing for the application of new knowledge into an authentic experience (Carver, 1997; Burns et al., 1999). Felten and Clayton (2011) and Bringle and Hatcher (1999) also express that it provides opportunities for transformative learning through joint relationships and meaningful outcomes between pre-professionals and the community. Service-learning is guided by three core principles: (a) experience related to course content, (b) student contribution to the community, and (c) student reflection (Burns et al., 1999; Roper & Santiago, 2014).

Experience Related to Course Content

When designing and initiating a service-learning course, one must identify student learning outcomes before planning the course. Focusing on the end goal prior to the design of the course allows for the development of assessable learning goals, which, in turn, leads to the design and implementation of pedagogical methods to be utilized throughout the course (Ash & Clayton, 2009). When considering students perceived academic benefit from SL, it is imperative to consider the importance of pedagogical practices could have on actual student learning in addition to ensuring students discuss and reflect on their experiences to help them move beyond initial reactions to the experience toward a broader perspective which is critical for learning (Mabry, 1998). Providing students with content related to their service-learning experience improves the likelihood that they will be able to utilize and apply acquired content knowledge within

the experiential learning environment (Ash & Clayton, 2004). Furthermore, students will be better able to analyze and synthesize content knowledge with their service-learning experience to demonstrate accomplishing the desired learning outcomes.

Students Contribution to Community

The second component of service-learning is empowering students to work with communities or individuals with specific needs. This autonomy fosters a sense of belonging and the ability to form relationships, developing students' sense of agency and desire to continue impacting communities in the future (Carver, 1997). Mabry (1998) indicated that the service-learning experience should be meaningful and purposefully planned to allow students to utilize the academic course content better to understand the needs of the client and community. Additionally, students should be provided with repeated opportunities for interaction to create the most beneficial student learning experience.

Student Critical Self-Reflection

The third component of service-learning is the student reflection component, and it can be identified as the missing link when it is not utilized effectively to enhance student learning. Bringle and Hatcher (1999) state, "Reflection activities are a critical component of effective SL because they connect the service activities to the course content, extending the educational agenda beyond rote learning." Studies have found that self-reflection effectively directs students to realize their learning growth (Ash & Clayton, 2004; Kolb & Kolb, 2009). Hatcher and Bringle (1997) stated that future action by the SL participants cannot happen without thoughtfully analyzing the experience. Educators play a crucial role in guiding this critical reflection, helping students connect

their experiences to the course content and learning objectives that foster their growth and ability to take informed actions.

Importance of Critical Reflection

Service-learning integrates experiential learning within academic courses. The experience and course content design are intended to complement each other, and structured reflection is the key to incorporating learning and experience (Bringle & Hatcher, 1996; Sax, 1997). The value of critical reflection cannot be overstated- it is a means for students to interpret their service-learning experience. Through reflection, students can establish connections between course material and their SL experience, ultimately achieving mastery of service-learning course learning objectives (Correia & Bleicher, 2008; Ash et al., 2005; Burns et al., 1999). For example, students being able to distinguish between the social construction of disability and their own personal perception of disability, may represent a course objective that could be achieved through reflecting on the SL experience. Bringle and Hatcher (1999) assert that experience alone does not lead to knowledge. However, “experience becomes educative when critical reflective thought creates new meaning and leads to growth and the ability to take informed actions” (p. 180). Hatcher and Bringle (1997) have developed a set of guidelines to ensure students can reflect critically on their SL experience by linking the experience itself to learning objectives and course content. Scheduling reflection regularly throughout the students' experience (to examine growth and development), providing feedback, and helping students clarify values and thoughts they struggle to identify are also included in these guidelines. Without structured reflection, integration of academic content, and having the students identify the connections between both, the

impact of service-learning may be limited and be challenging to maintain (Hatcher & Bringle, 1997; Hess et al., 2007; Petkus, 2000; Wallace, 2000).

Critical reflection is a necessary service-learning component, requiring students to analyze and think critically about their experiences. “Experiences often create controversy, and if the controversy is not reflected upon, it can be a misleading, even harmful experience, which produces a lack of sensitivity and responsiveness in the learner” (Hatcher & Bringle, 1997, p. 153). Hutchings and Wutzorff (1988) identify reflection as the opportunity to think about the experience and take away knowledge that might be relevant to other experiences.

Emotions. Felten et al. (2006) define adequate reflection as “a process involving the interplay of emotion and cognition in which people intentionally connect service experiences with academic learning objectives” (p. 42). They suggest that personal reflection allows students to use their experience to consider the individual effects of the experience and explore conflicting values that may have developed. Some of these values are related to emotion, and, while complicating learning at times, are still considered essential components of learning (Felten et al., 2006). Dewey (1934) describes emotion in SL as a potential catalyst for scientific thinking by stating: “Emotion is the moving and cementing force. It selects what is congruous and dyes what it selected with its color, thereby giving qualitative unity to material externally disparate and dissimilar” (p. 44). Many academicians have avoided the affective component of learning due to the complications of measuring student progress; however, encouraging students to label their emotions in reflections may help them tie their experience and learning together more efficiently (Felten et al., 2006). Felten et al. (2006) propose that while emotions can

make learning and motivation unclear, they are still essential to SL and reflection. Connolly (1994) suggested that by including emotion and reflection on themselves, students are forced to practice self-honesty- reflecting on themselves as individuals, students, and future practitioners- which can be significant to their growth and development throughout the course.

A service-learning experience can be overwhelming and stressful for many students, creating different thoughts and feelings on a personal level. Students must be supported throughout the experience to help them feel safe and respected as individuals.

“Students need considerable emotional support when they work in settings that are new to them; there needs to be a safe space where they know that their feelings and insights will be respected and appreciated. As their service develops and their questions become more sophisticated, they need intellectual support to think in new ways, develop alternative explanations for experiences and observations, and question their original interpretations of issues and events” (Eyler & Giles, 1999; p. 185).

While it can be preferred to keep personal thoughts, feelings, and emotions out of service-learning, it cannot be dismissed because sometimes the affective domain of learning can be the most significant predictor of knowledge acquired by students.

Depth of Reflection. Critical reflection can be a difficult skill to learn. Students may lack writing or critical thinking skills, and it becomes necessary that students have many opportunities to reflect, receive frequent feedback from the instructor, and participate in other forms of student-led reflection opportunities (Molee et al., 2010).

Landeen et al. (1994) also stressed that more than one semester may be needed for some to develop deep reflection skills. Eyler (2002) argued that typical critical reflections do not reach the level of depth that Dewey (1933) described as “persistent and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and the further conclusions to which it tends” (p. 9). The ultimate objective of

critical reflection is to help students gain the ability to use complex information and develop personal agency to make change (Eyler, 2002). Ivala et al. (2014) examined four diverse levels of depth of reflection (stimulated reflection, descriptive reflection, dialogic reflection, and critical reflection) to understand better the ultimate outcomes that may be seen at each level.

At the stimulated reflection level, students become aware of the new subject matter and become stimulated cognitively because they need to make sense of the latest knowledge. However, this results in minimal reflection, and students tend to put minimal effort into learning, only focusing on memorizing the material for assessment (Ivala et al., 2014; Strampel & Oliver, 2007). As a result, these critical reflections make it difficult to discern the amount of learning occurring in these students.

In the descriptive reflection level described by Boud et al. (2013), students recall situations from past experiences and examine their reactions to those situations. They elaborate extensively on the situations but recognize different viewpoints and justify their actions to avoid judgment. Learners can typically see different perspectives of the situation in a broader context (Boud et al., 2013).

Dialogic reflection involves students re-evaluating their experiences through association, integration, and validation (Boud et al., 2013). They begin connecting new knowledge with prior knowledge and can identify relationships between them. They try to make connections between facts, verify the consistency of knowledge, and compare their views with the views of others. Students begin to understand and accept different perspectives and may start identifying changes in their own previous beliefs.

Finally, at the critical reflection level, students can identify the value of different viewpoints, knowledge, and experiences and evaluate these experiences on a larger scale. This allows students to develop new perspectives and provides them with the agency to identify the need to commit to working for change (Brigden & Purcell, 2004). This level represents the desired level of reflection many instructors have for students during service-learning experiences.

Small Moment Reflections

Critical reflection has been identified as one of the most crucial aspects of service-learning; however, one form of reflection has yet to be recognized as superior to others. Reflection can be combined as a cognitive process and a structured learning activity. As such, reflections can take many different forms: unstructured journaling, small group discussions; directed writings, including guided reflection and double entry journals; storytelling, and small moment reflections (SMR) have all been documented as possible reflection strategies (Mabry, 1998; Giles & Eyler, 1994; Batchelder & Root, 1994; Kohls, 1996; Hatcher & Bringle, 1997; Bleicher & Correia, 2011; Alterio, 2002; Ivala et al., 2014). Due to the large variety of reflection methods, only SMRs will be discussed.

Calkins and Oxenhorn (2003) created a writing strategy geared at helping young children think about an experience and then write about it. This was done by creating a short story. They believed that by having children choose small moments, they would be better able to explain the experience in better detail due to viewing it in smaller pieces. In 2008, Correia and Bleicher studied how using small moments could assist undergraduate students in making sense of and reflecting more effectively on experience during service-

learning. They believed that small moments could build upon each other, creating a natural pathway to stimulate deeper reflection involving various viewpoints. College students often become overwhelmed by choosing what to write during reflections and lose focus on the objective of critical reflection (Bleicher & Correia, 2011). So, they proposed selecting one moment during a student's service-learning experience, having students describe the event in detail, think about it, and then reflect on why it was so important to them by including what they learned. In essence, they modified Calkins and Oxenhorn's (2003) strategy and implemented it in a higher education environment. However, it is essential to note that writing about a small moment does not lead to writing an in-depth reflection and vice versa. If either component of the SMR lacks quality and depth, the learning from the experience will not be visible to the student or the instructor (Bleicher & Correia, 2011). To navigate this, they suggested that students need frequent instructor feedback to help them better understand their growth and development because of the service-learning experience. Through a GT study, Bleicher and Correia (2011) determined what students were learning and how they perceived their growth during their service-learning experience through themes that emerged from students' SMRs. They concluded that using SMRs helped focus students' attention and help them engage in reflection more easily. Students reflected in ways that validated or modified their beliefs based on experience.

A recent GT study by Oliver and Stanton-Nichols (2022) utilized SMRs to analyze the change processes in undergraduate students participating in APA service-learning activities. Themes were identified in terms of stages of personal change and by identifying themes representing assorted reasons for change within each stage. The

current study directly coincides with the past study, intending to further the data through different samples while employing repeated semi-structured interviews as another mode of data collection.

Outcomes of Service-Learning

Significant research has been conducted on service-learning outcomes, mainly focused on personal development and educational outcomes. Numerous studies have identified the potential benefits of service-learning; however, conflicting thoughts remain related to its efficacy. Although SL has been thoroughly defined, it is implemented in various ways, which could lead to conflicting outcomes regarding the overall benefits of such experiences.

Personal Development and Understanding Community

Utilizing the components of SL can pay dividends for future professionals who may be hesitant to encounter new challenges and experiences (Jones & Abes, 2004). Service-learning's benefits can be identified by utilizing course content knowledge during the experience and writing in-depth critical reflections (Eyler, 2002). Service-learning allows groups of individuals from diverse backgrounds to make meaningful contact, improving attitude, empathy, and understanding and reducing anxiety toward diverse populations (Lynch et al., 2019; Pettigrew & Tropp, 2008; Case et al., 2021). Other personal outcomes which have been identified through quantitative and qualitative research studies include students experiencing changes in their identity through increased self-efficacy, perceived competence, problem-solving skills, and moral development (Batchelder & Root, 1994; Conrad & Hedin, 1991; Eyler et al., 1997; Kendrick, 1996; Markus et al., 1993; Myers-Lipton, 1994, 1996; Parker-Gwin, 1996; Sax, 1997; Eyler &

Giles, 1999; Jones & Abes, 2004). Service-learning often results in social outcomes in students' focus (changing from an internal to an external) on the community or participant throughout the experience (Jones & Abes, 2004). These may include reducing stereotypes and improving beliefs about individuals different from themselves, resulting in an increased appreciation for diversity and changing students' personal values, beliefs, and attitudes. The identified potential social outcomes likely align with the results of contact theory. Current studies have suggested that the tenets of contact theory can be viewed as facilitators of change; however, they do not necessarily guarantee that change will occur (Pettigrew & Tropp, 2006). However, by including the critical reflection piece, understanding the community related to the SL experience could improve and prompt individuals to become advocates for change. As Bringle and Hatcher (1996) suggest, the desired outcomes of SL experiences are for individuals to recognize community needs and begin thinking and acting as civic-minded individuals. This could be where SL and critical reflection meet contact theory and ignite change.

The dual opportunities for learning (course and service-learning experience) allow students to reflect on their previously held beliefs and biases regarding the community they served. Studies have previously linked the amount of time spent engaged in service-learning to a positive effect on civic values. (Burns et al., 1999). Students who participated in over twenty hours of service-learning revealed greater awareness of social issues and, in turn, had more optimistic attitudes toward community service involvement than those who participated less frequently (Kendrick, 1996; Markus et al., 1993; Patterson, 1987). Burns et al. (1999) also proposed: "By serving in the community, students can see themselves as role models, raise their awareness of the needs of others,

provide another perspective on their own abilities and limitations, and promote better interpersonal and communication skills” (p.59).

Possible Educational Outcomes

Although many studies support improved educational development in students engaging in service-learning, many studies create uncertainty on whether service-learning results in higher academic achievement in participating students compared to students who do not participate. Past studies have found that sometimes SL students do not earn better grades or display higher levels of learning than non-participating students (Giles & Eyster, 1994; Kendrick, 1996). However, Mabry (1998) posits that one reason for the mixed findings in student learning outcomes could be the varied methods used to implement and perform SL in higher education. Negating the importance of service learners having contact with stakeholders, facilitating in-class discussion and reflection, and imploring students to reflect individually could be one reason for the conflicting results in studies examining education development (Mabry, 1998). While some studies identify service hours positively affecting student learning (Markus et al., 1993; Sax, 1997), other studies have not shown any significant difference in academic outcomes when comparing groups (Kendrick, 1996). Gauging results in student learning through service-learning courses could be more consistent if service-learning methods that have demonstrated positive academic benefits were explicitly identified and utilized as practical models in higher education (Mabry, 1998).

Conflicting Thoughts

With all the positive studies related to service-learning experience in higher education, there remain conflicting notions about why service-learning may not be as beneficial as intended. If the service-learning experience is not purposeful and focused on

student learning, the experience can be misconceived as charity work and reinforce stereotypes and bias initially held by the students (Chupp & Joseph, 2010; Cipolle, 2004; Marullo & Edwards, 2000). The potential impact of non-purposeful service-learning could reinforce “the idea of privilege and power within society and sustain the hegemonic power of the elite” (Hess et al., 2007, p. 33). When dynamics of cultural differences and beneficiaries served are not addressed within the academic content in advance of a service-learning experience, it can result in students increasing prejudices, confirming believed stereotypes and biases, and feeling a sense of superiority rather than developing empathy and compassion for individuals whom students consider different (Boyle, 2007). The concerns regarding the effectiveness of service-learning highlight the importance of students being able to think about and reflect on their experience; without reflection, the experience could fail to guide future action in students (Sheckley et al., 1993).

Summary

With all the studies conducted on how SL impacts pre-professionals attitudes toward working with IWD, much of the research has been quantitative and does not examine in-depth how attitudes change. Nor does it examine the results of SL experiences for pre-professionals working with this population (Roper & Santiago, 2014). While current literature focuses on how interaction addresses changing attitudes, little literature on APA has focused on student understanding of disability or how a change in psycho-social processes can be exemplified through reflection. This study aims to gather new data and expand on existing data related to the previous study conducted by the researcher, with some alterations, such as incorporating repeated semi-structured interviews and a new sample of SMRs.

Chapter Three- Research Methodology

This chapter will include the study's purpose, which was focused on constructivist grounded theory (GT). It will also include the purpose and research questions, the research design, the epistemology and theoretical framework for the study, the GT methodology, and the study procedures.

Purpose of the Study and Research Aims

This study aimed to build upon a theoretical framework developed in a previous research study, *Reshaping Understanding*, that outlined psychosocial processes by undergraduate exercise science students conceptualized and understood disability (Oliver & Stanton-Nichols, 2022). The current framework was based on data from the prior study that included reflections of students participating in a six-week APA service-learning experience with IWD and building upon the framework using a new sample and additional data collection. Data collection included semi-structured interviews and student small-moment reflections (SMR). Two primary research aims include:

1. Determine how data obtained for this study support or refute the *Reshaping Understanding* framework.
2. Refine or modify the *Reshaping Understanding* framework using data from this study.

Research Design

Qualitative research is focused on better understanding a phenomenon or issue by utilizing an individual's perspectives, words, or narratives to define a concept. Aspers and Corte (2019) define qualitative research as "an iterative process in which improved understanding of the scientific community is achieved by making new significant distinctions resulting from getting closer to the phenomenon studied." It is mainly

interpretive, as the researcher is charged with navigating through data collection and analysis without utilizing statistical analysis to determine the power and significance of the data. Qualitative research methodology is practical when discerning how individuals conceptualize their experiences. Because the methodology is mainly inductive, the researcher attempts to understand concepts by relying on words rather than numbers to test them (Merriam, 2009). Since this study was focused on human experience, a qualitative research design was chosen, specifically constructivist GT, a unique and innovative approach in the field of adapted physical activity.

Epistemology

The epistemological postulation steering this study is constructivism, which is driven by the ontological belief of relativism. In relativism, one must acknowledge that there is no objective truth and that reality and experiences vary among individuals (Guba & Lincoln, 2001). These experiences could vary among individuals due to social, experiential, time, location, and cultural differences (Guba & Lincoln, 1994).

Constructivism encourages individuals to use previously learned knowledge and apply it in new contexts to develop their interpretation of learning (Guba & Lincoln, 2005). Piaget, a Swiss psychologist who established the developmental theory of knowledge (epistemology) is believed to have been the first constructivist. He believed knowledge was gained through life experiences, where individuals repeatedly organize and restructure these experiences. Individuals change their previous understanding as new experiences and knowledge grow (Piaget, 1967).

It is suggested that the learner's mind creates knowledge, described in greater detail by von Glaserfeld (1984): “Learner’s construct understanding. They do not simply

mirror and reflect what they are told or read. Learners look for meaning and will try to find regularity and order in the events of the world even in the absence of complete information.” Using this epistemology, researchers aim to use the lived experiences of individuals to identify phenomena and gain a better understanding of psychosocial processes these individuals encounter. Individuals gain knowledge through these experiences, leading to the construction of increased and altered knowledge through increased experiences.

Constructivism was the appropriate epistemology for this study as it was focused on studying participants' lived experiences through a service-learning experience in APA. By examining repeated reflections of participants throughout their experience, psychosocial processes of change were identified and better explained as the data was analyzed and formed into a theoretical framework based on lived experience rather than quantitatively examining if general change occurred because of a service-learning experience.

Conceptual Framework

This study builds on a conceptual framework titled *Reshaping Understanding* (Oliver & Stanton-Nichols, 2024). The framework was developed using a constructivist GT analysis focused on exercise science students' reflective statements that captured their evolving understanding of disability during a six-week APA service-learning experience.

To establish a representative sample, the researchers randomly selected ten clinic clients who participated regularly (at least one clinic annually). Thirty undergraduate exercise science students were then purposely selected as participants who had worked

with the ten identified clients over three semesters. Data was collected using participants' weekly SMRs assigned for students to complete following each week of the clinic (six required per participant). In total, 180 SMRs were collected for analysis after they were graded by the instructors of the course. All SMRs were deidentified prior to data analysis. Data analysis was completed by two researchers individually conducting the initial coding of each reflection submission. The researchers self-identified emerging codes and began meeting regularly to discuss the emerging codes and to begin identifying focused codes. After repeated data review and collaborative discussion, a theoretical framework was developed.

The *Reshaping Understanding* framework consists of three stages and four threads that accompany the stages. The three stages were as follows: (1) *feeling apprehension and reluctance*, (2) *gaining perspective*, and (3) *reshaping understanding and bias* (Oliver & Stanton-Nichols, 2022). The analysis also revealed four threads: 1) *client-student relationship*, 2) *beliefs about disability*, 3) *approach to planning and implementation*, and 4) *student internal change*. The framework is depicted in *Table 1*.

During the stage of *feeling apprehension and reluctance*, the students expressed uncertainty and anxiousness in their ability to work with IWD. They were worried about being disliked, their client's ability to do the planned activities, and their inability to make changes for their client when needed. The *gaining perspective* stage showed students developing rapport with their client, changing focus from the disability label to their client's ability, and recognizing the importance of practical and detailed planning. Students also better understood the importance of the experience as a pre-professional. During the *reshaping understanding and bias stage*, the students became increasingly

Table 1: Stages and Threads of Change (Oliver & Stanton, 2022)

		Stages of Change		
		Feeling Apprehension and Reluctance	Gaining Perspective	Reshaping Understanding and Bias
Threads	Client-student relationship	Needing to develop trust Building trust over time with patience	Feeling a connection with and accepted by the client. Feeling increased ease in interaction and communicating with the client	Recognizing a shared understanding of needs and want Replacing unease with client with friendship
	Beliefs about disability	Underestimating/ surprised by the client's ability. Needing to look past disability label	Identifying and seeing ability instead of limitations Beginning to question the social construct of disability. They are questioning how the client is treated outside of the clinic. Realizing the importance of clinic experience for clients and students to learn and grow	Seeing the client as an individual Expressing perspective of the need for societal change for individuals with disabilities through clinical experience
	Approach to planning and implementing	Feeling overwhelmed by detail and planning Feeling defeated by the struggle with client resistance Identifying possible ways to improve client participation and focus Needing to let go of the expected outcome and recognizing the need for modification	Recognizing the connection between method and student engagement Recognizing the importance of client understanding and completing activity correctly Identifying how their client engages in activities best	Becoming confident in implementing effectively due to successfully applying concepts learned in class Realizing the importance of being prepared and knowledgeable about implementing possible changes to instruction
	Student internal change	Uncertainty/ Anxiety Wanting to feel accepted by the client Having small success builds confidence	Receiving constructive feedback and praise from families, clients, and staff increases confidence. Feeling more successful each week Gaining confidence in my ability to "think on my feet" and finding success Feeling a sense of pride in seeing client progress	Building confidence through new experiences Realizing the personal impact of experience Feeling reciprocity in the impact of experience between client and student Being emotionally impacted by the experience Needing to be open to new challenges

aware of the mutual benefit of the clinic experience. They recognized the importance of avoiding personal bias and preconceived beliefs about others. Additionally, students developed confidence in their abilities and showed considerable change in their understanding of disability by the end of their service-learning experience.

Students articulated many different thoughts and feelings about the experience, which led to identifying the framework's four threads. The *client-student relationship* thread developed from students needing to develop a rapport and evolved to students recognizing a shared understanding of needs between the student and client. This led to students expressing gratitude for the opportunity to form an unexpected connection with their client. Initially, participants reported underestimating the IWD and focusing too much on the disability label; however, by the end of the experience, students were seeing the client as an individual and were expressing the need for a societal shift in perceptions of IWD. Consequently, the thread of *beliefs about disability* was identified.

Participants were initially overwhelmed and felt defeated by their *approach to planning and implementing* activity plans not working the way they imagined. However, through repeated experience, students began experiencing small successes, and the small successes students experienced combined with their ability to apply concepts learned during the course resulted in increased confidence. *Student internal change* evolved from students feeling uncertain of their ability and wanting to feel accepted by their client to feeling a reciprocal relationship between the client and themselves. Students felt pride when they observed their client's progress. They also began feeling emotionally impacted, which is a testament to the depth of their experiences. They recognized the importance of not underestimating themselves and being open to new challenges.

While the *Reshaping Understanding* framework provided an intense depiction of the evolution of students' understanding of disability, the data source limited the findings. The SMRs yielded considerable information, but the authenticity of the data could be questioned because assignments were graded and may have resulted in students reflecting cautiously based on what they thought the grader wanted to read. The reflections also did not allow the researcher to probe the students' responses to obtain more information about their experiences. Another limitation identified after the study was the limited variation of types of disabilities to which participating students were assigned.

The present study conducted repeated semi-structured interviews to gain more in-depth information about students' experiences. A new sample of SMRs more representative of various disabilities was also used to ensure the refined conceptual framework included a broader range of students' experiences. The current study relied on semi-structured interviews to obtain the in-depth accounts of student experiences needed to modify and refine the *Reshaping Understanding* framework. At the same time, the new SMRs added dimension to the framework. The collected and analyzed data confirmed that there is a process students go through when working with IWD in a physical activity environment. Both data sets were used to examine students' service-learning experience in APA exercise programming thoroughly, and the existing framework was simplified, refined, and reformatted into a psychosocial process.

Grounded Theory Methodology

Grounded Theory is an inductive research process used to generate a theoretical framework from narrative data gathered from persons who have experienced a phenomenon of interest (Charmaz, 2014). Glaser and Strauss are known as the founders

of classic GT. They questioned the appropriateness of always using the scientific method for research; from this, the two developed the constant comparative method, which is identified to organize and analyze qualitative data. They challenged the thought that qualitative research lacked rigor and proposed that utilizing inductive reasoning with comparative analysis could generate a theory instead of testing an existing theory (Chun Tie et al., 2019). Glaser and Strauss (1967) defined GT as “the discovery of theory from data systematically obtained from social research” (p. 2).

In classic GT, developed by Glaser and Strauss, emphasis is placed on the researcher's being detached from the data collection and remaining neutral. If the researcher becomes too involved in the data collection, their neutrality could diminish, and the data would not be the only characteristic influencing the research progress (Glaser & Strauss, 1967; Sebastian, 2019). Glaser and Strauss posited that reviewing literature should not be completed until the data has been analyzed. Furthermore, creating a substantive or formal theory is at the heart of completing the study in classic GT.

While Strauss collaborated with Glaser in developing classic GT, he also had different views on GT methodology than Glaser. His research continued and further developed a different GT methodology, interpretivist GT. He brought “notions of human agency, emergent processes, social and subjective meanings, problem-solving practices, and open-ended study of action to grounded theory” (Charmaz, 2006, p. 7). Strauss began viewing GT from more of a pragmatist philosophy, which in turn linked symbolic interactionism and pragmatism, which theorizes that language and communication are inherent to identifying that society, reality, and self are assumed to be self-constructed

(Blumer, 1969; Mead & Schubert, 1934). He posited that the researcher needs to be engaged in interpreting the data and that prior knowledge about the data could strengthen the research and data collection. (Strauss & Corbin, 1998; Sebastian, 2019). Reviewing the literature was accepted before, during, and after data analysis to make comparisons or explain the results. Strauss' GT aims to produce a theory that focuses on interpreting people's words, is relevant to the situation and multiple perspectives, and facilitates meanings to solve problems (Charmaz, 2014; Corbin & Strauss, 2008; Strauss & Corbin, 1998).

Charmaz, a former student of Glaser and Strauss, used the influence of classic and interpretivist GT but took a constructivist approach. While keeping some of the central tenets of the original classic GT, Charmaz added on the recognition that constructivist GT captures theory within the time, place, culture, and context of when and where the data is gathered, recognizing that data can be interpreted differently due to these conditions (Charmaz, 2014). Researchers take a reflexive stance and attempt to keep presumptions and postulations away from saturating the data but recognize that this is sometimes unavoidable (Charmaz, 2014). Constructing theory includes a joint construction of data between the participants and the researcher due to their natural link (Guba & Lincoln, 1994; Charmaz, 2007).

The constructivist GT method was appropriate for this study due to the link between researchers and participants. It also helped describe the psychosocial process undergraduate students experience through a service-learning environment. Due to the researcher's familiarity and experience with IWD, it is impossible to ignore how it could have influenced the research. This method worked well by understanding that

experiences could vary based on where, when, and with whom the research was conducted. Since the research was conducted in a university setting with undergraduate students majoring in exercise science, it is understandable that the developed framework might change in a different setting. The participants in the study had varying levels of experience working with IWD, and in a different setting where participants have extensive experience, the *Reshaping Understanding* framework could be disputed. However, the constructivist GT method allowed for examining the previous framework and comparisons in a similar environment.

Procedures

Setting

Participants were enrolled in a required upper-level kinesiology course that focuses on disability and physical activity at a metropolitan university located in the Midwest. The course “Exercise Prescription for Individuals with Disabilities” is required for all exercise science majors. Participating students were upper-division students, mostly in their third or fourth year of university. The course is designated as a service-learning course in which students have a lecture section and complete a six-week clinic experience working with IWD. Students can choose between one of two settings. One involves adults with disabilities, the other children. Other than age and setting differences, both settings include multiple types of disabilities, including physical, social, and intellectual. All students registered for their clinical setting when registering for class and were similarly prepared and trained before engagement.

The researcher was not the primary instructor of the course. The course focuses on presenting students with the social and medical models of disability; however, the first

three weeks focus on familiarizing students with their upcoming service-learning experience. Students learn about Dynamic Systems Theory to assist with writing clinic activity plans for their clients, performing assessments, as well as an introduction to the social model of disability. Information about the medical model of disability and specific disability information is purposely postponed until the service-learning experience has begun to prevent students from developing preconceived notions about disability or physical capacity. Course content, clinic, and student experience are intertwined throughout the semester.

Sampling

Two data types were collected: Small Moment Reflections (SMR) and Semi-structured interviews. Students who signed the Informed Consent to participate in interviews were not included in the SMR data collection (*see Table 2*).

An acceptable goal of 30-40 participants is feasible in typical GT studies. With approximately 45 students eligible to participate in the study, it was anticipated that 20 students would agree to participate in the semi-structured interviews and 15 students would be identified as participants in the SMR portion of data collection. However,

Table 2: Sampling

Sampling			
<i>Students Enrolled in Exercise Prescription for Individuals with Disabilities Course</i>			
<u>Small Moment Reflections</u>		<u>Semi-Structured Interviews</u>	
Instructor Selected		Participants who Signed Informed Consent	
Clients Range of Disabilities		Participant Completion of three out of four Interviews	
14 participants in the first semester	Six participants in the second semester to ensure saturation	Seven participants in the first semester	Four participants in the second semester

because this study built upon an identified conceptual framework and utilized different data sources (interviews and SMRs), data saturation occurred with fewer participants- (11 for semi-structured interviews and 20 for SMRs).

The course's primary instructor played a crucial role in the data collection process. They self-selected 14 students' SMRs during the first semester and six during the second semester, totaling 20 students. Inclusion criteria for the new sample of SMRs included being enrolled students of the Exercise Prescription for Individuals with Disabilities course and completing the clinic portion of the class. This collaborative effort ensured data saturation. The students' clients represented a diverse range of disabilities, effectively addressing a potential limitation of the preliminary study.

The participant recruitment process for the semi-structured interviews was thorough and systematic. Students from an upper-level kinesiology course participating in one of two service-learning settings were included. After obtaining IRB approval (*See Appendix A*), the researcher presented the study's purpose to students during the first day of class, initiating the recruitment process for the semi-structured interview part of data collection. This recruitment continued for two weeks. Students were eligible to participate if they completed the informed consent form and could participate in three of four semi-structured interviews. The first semester saw 12 participants initially signing the informed consent, but only seven completed the required number of interviews, necessitating further recruitment in the subsequent semester. The same recruitment methods were used, resulting in four students agreeing to participate in the second semester, bringing the total to 11 interview participants.

Data Collection

The study employed two forms of data collection: verbal semi-structured interviews and SMRs (See Table 3). Semi-structured interviews addressed the possible lack of authenticity of reflections by providing a deep understanding that written reflections alone could not offer. This comprehensive approach allowed for collecting richer data than the written reflections could provide.

Table 3: Data Collection

Data Collection				
<i>Identified Limitations of Previous Study</i>				
<u>The narrow scope of client disabilities</u>		<u>Authenticity of Small Moment Reflections due to grading</u>		
Small Moment Reflections		Repeated Semi-Structured Interviews		
NEW Small Moment Reflection participants		Eleven participants		
Twenty participants		Outside Interviewer		
Small Moment Reflections completed after each week of the clinic (6 total per participant)		Scheduled through Sign-Up Genius platform	Interviews completed: Two weeks prior After week 2 After week 4 After week 6	
		Interviews conducted through Zoom with audio recording		
Instructor downloaded, deidentified, and saved by participant code.		The interviewer downloaded and saved by participant code.		
		Uploaded for transcription through the online Verbit platform		
<i>Data was shared with the researcher.</i>				

The preliminary study used 30 students who were working with ten clients. Those clients were selected based on having participated regularly in the clinic to gain a solid initial framework; however, the ten clients did not represent much differentiation in types or degrees of disability diagnoses. This may have limited the representation of client

disabilities, generating insufficient data collected from SMRs. Reviewing another sample of SMRs, further data was utilized to enhance the *Reshaping Understanding* framework.

Small Moment Reflections

Participants were students who completed service-learning experiences as a required course component. The service-learning experience required students to submit and implement a weekly activity plan for their clients and complete an SMR after each session. SMRs were utilized as the reflective piece, having students identify moments of the clinic session that stood out to them and articulate and consider why that moment was so important (*See Figure 1*). SMRs were submitted through an online course management system and graded for comprehensiveness. The researcher did not review or grade any

Figure 1: Small Moment Reflection Assignment¹

*Some experiences are best articulated when just a portion of the story is discussed. Small-moment reflection is a writing strategy that allows one to focus on a small moment (of an experience) and discuss/reflect on the meaning of that one moment in greater detail. The purpose is to write about a particular aspect of your observation that you found meaningful and reflect on what was particularly important about the observation to you.
<u>What I would like you to do:</u> <ol style="list-style-type: none">1. Recall a moment that was “meaningful” to you*2. Describe the moment and explain what happened.3. Reflect on why this particular moment was significant to you as the observer
*Meaningful has several contexts here. It does not have to be anything dramatic or special but something that stood out to you.

participant’s SMR to allow participants to freely complete their assignments without hesitating authenticity because the researcher might be reviewing them. The course instructor selected twenty exercise science students as participants in the SMR portion of the data collection. On weeks one and five, two clients were absent from the clinic, which

¹ This assignment was created by instructor of the course and represents the assignment given to students to complete after each clinic session.

excluded those participants' data from being analyzed. In total, 117 SMRs were analyzed (See Table 4).

When the participants' service-learning experience was completed, the course instructor downloaded and deidentified all participants' SMRs and organized them into chronologically ordered folders by week. The instructor saved each small moment reflection via participant numerical code and shared it with the researcher. The researcher then prepared the SMRs for data analysis.

Table 4: Small Moment Reflection Participant Analysis

Week	SMRs Analyzed
1	18
2	20
3	20
4	20
5	18
6	20

Semi-Structured Interviews

Grounded theorists use intensive interviews that “focus on research participants’ statements about their experience, how they portray this experience, and what it means to them” (Charmaz, 2014, p. 85). During these interviews, questions are open-ended and focused on getting detailed responses to better understand the participants' experiences and perspectives. Guiding questions for the interviews in this study focused on gaining information about the participants' repeated experiences and their changes in perspective throughout the clinic (See Interview Guides in *Appendix B*). A graduate student at a different university (interviewer) who was unaffiliated with the course conducted the interviews. The interviewer was previously an undergraduate volunteer who assisted with

the clinics. They were given background information on the purpose of the study's research but not details about the *Reshaping Understanding* framework to avoid potential bias. They completed the Collaborative Institutional Training Initiative Behavioral and Social Science Research course to ensure an understanding of the importance of ethical conduct. The researcher trained the interviewer via two Zoom meetings on the methods and procedures and discussed how the semi-structured interviews should proceed. The researcher stressed to the interviewer the importance of avoiding asking any leading questions or displaying potential bias that may cause the participant to be uncomfortable.

The interviewer utilized Sign-Up Genius to set up open interview time slots that participants could select according to availability. At the beginning of each interview session, the interviewer identified the participant by a numerical code rather than name to keep the participants anonymous to the researcher. All verbal interviews were conducted over a Zoom session, where the audio conversation was recorded and saved. It is vital to identify that only the audio portion was recorded for the researcher; none of the interview sessions were conducted or recorded via video to ensure the confidentiality and anonymity of participants.

Participants were asked to utilize the voice call option and only identify themselves by participant numerical code. They were also asked to avoid identifying their client by name. At the beginning of each interview, the interviewer read a formal statement informing the participants of how the call was being recorded and saved. Participants were told to refrain from answering questions that made them uncomfortable and were free to drop out of the study without repercussions.

Eleven exercise science students in the course volunteered to participate in the data collection interview portion. Semi-structured interviews allowed participants to provide a more in-depth account of their experience throughout the clinic. The researcher gathered deep responses as participants expanded on their experiences through lead questions asked by the interviewer. Requirements for the collected data to be analyzed included participants completing at least three out of four interviews (*See Table 5*).

Participants participated in four bi-weekly verbal interviews (lasting 4-15 minutes per session) throughout their service-learning experience. There was a large variation in the length of interviews, but this could have been a result of either participants going in depth or the interviewer gaining more experience after the first semester of interviews. Before beginning the experience, participants engaged in an initial interview and were asked to talk about their thoughts, feelings, and concerns related to the start of their clinic experience. The second interview was conducted after week two, and participants were asked to reflect on their initial thoughts, feelings, and concerns they expressed during their first interview to identify growth or change. After week four, the third interview was

Table 5: Participation in Semi-structured Interviews

Interview Number	Completed Interviews	Uncompleted Interviews
1	11	0
2	11	0
3	10	1 (Participant # 1)
4	9	2 (Participant # 6; Participant # 16)

completed to continue examining growth or personal change during the service-learning experience. At the culmination of their service-learning experience (week six),

participants completed a final interview to reflect on their individual experiences throughout their service-learning experience.

After each block of interviews, the interviewer downloaded and saved the audio recording by participant code in chronologically ordered folders. The researcher then uploaded these files with the Verbit transcription service to be transcribed. When Verbit completed the audio transcription, the researcher downloaded and prepared the transcriptions for data analysis.

Data Analysis

Data was analyzed using the constructivist GT methodology. Audio interviews were transcribed verbatim through the Verbit transcription service and saved by participant alphabetic code in chronological order by interview number. SMRs were collected and deidentified to remove the participant and client names. Each SMR was given a numerical code and was organized chronologically in folders by week of submission. Both types of data collection were stored in different folders to avoid combining differing data sets.

Data was collected and analyzed for all participants until data saturation was met. This was identified when it was evident that new or similar themes of the previous study emerged, and other collected data did not reveal new information. As Charmaz (2014) states, "categories are saturated when gathering fresh data no longer sparks new theoretical insights, nor reveals new properties of these core theoretical categories."

Coding Data

A specific action plan is utilized to ensure the appropriate data construction for analysis in GT. Constant comparative analysis was used as the technique for data

analysis. “The constant comparative method is designed to aid the analyst who possesses these abilities in generating a theory that is integrated, consistent, plausible, close to the data...” to make comparisons throughout the analysis (Glaser & Strauss, 1967, p. 103). The guiding principles by Charmaz (2014) were applied for initial coding, memo creation, focused coding, and theoretical coding.

Participants completed six weeks of a service-learning experience. Eleven students agreed to participate in four semi-structured interviews. The primary instructor of the course selected 20 students’ SMRs for analysis. The analysis included initial (line-by-line) coding, memo writing, focused coding, and theoretical coding to develop a rich data saturation in which emerging codes were categorized into themes and stages of psychosocial change (*See Figure 2*). Because this study was further building on the *Reshaping Understanding*, data was continuously compared with existing themes to expand on the theory as coding progressed.

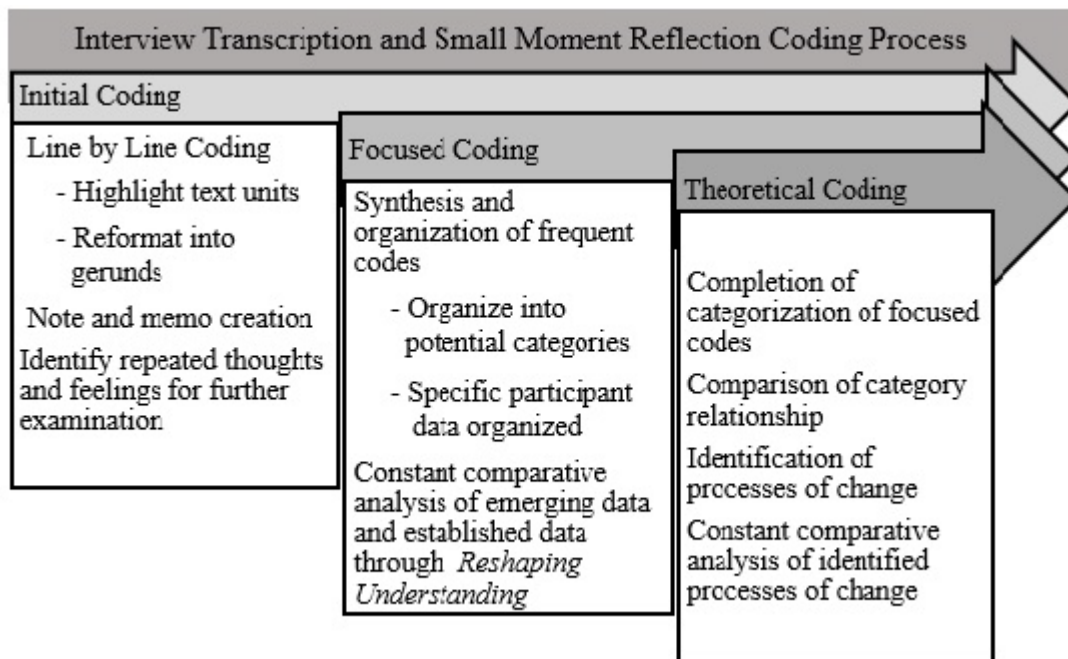
Initial Coding

Initial coding was the beginning of carefully analyzing the data collected. With each data sample collected, line-by-line coding was used to turn participants' thoughts into gerunds). This allowed the researcher to classify events by what was occurring to identify “implicit concerns and explicit statements” and why they were important (Charmaz, 2006; p. 125). After data collection, SMRs were downloaded and de-identified; interviews were transcribed and included line numeration for further reference.

Initial coding occurred during both semesters as new data was collected. This was especially important for the interview data because it allowed the researcher to identify if the questions provided adequate information. Interview transcriptions were analyzed

separately from the SMRs. The researcher analyzed the data from interview transcripts and SMRs line-by-line by highlighting relevant text units with short phrases or codes to help identify the data. When possible, the codes were reformatted as gerunds to capture actions and interactions that helped describe the thoughts and experiences of the participants (Charmaz, 2014). Using line-by-line coding of all semi-structured interview transcripts and all SMRs allowed for repeated thoughts and feelings to be identified and highlighted areas for further review. Codes that stood alone in the data did not signify any emerging ideas, allowing the researcher to narrow the focus. Notes and memos were created, allowing the researcher to formulate questions, identify areas needed for

Figure 2: Coding Process



clarification, and identify potential bias without altering the data. Recurrences in initial coding allowed the researcher to develop focused codes while creating individual memos to examine further. After the researcher completed the initial coding, a credibility check was conducted by meeting with two research committee members. Because the

researcher coded independently, two dissertation committee members reviewed the initial codes. They examined the initial codes created and discussed how they could be merged into focused codes and categories. These correspondences occurred over Zoom and through email discussion correspondence to help ensure credibility.

Focused Coding

Focused coding allows for the understanding and identification of themes that create more distinct categories while also using constant comparative measures throughout the emerging data (Charmaz, 2006). After initial coding, the researcher began organizing the most significant or frequent codes to sort, synthesize, and organize into categories. Second, the researcher grouped similar codes into potential categories by creating tables (*See Appendix C*). The participant identification number or alphabetic, the type of data the code was collected from (interview or small moment reflection), and the paragraph number from which the emerging code was extracted were included to continue comparative analysis as needed. Comparison of focused codes to the existing themes developed (*Reshaping Understanding*) allowed for the aims of the study to be examined.

Theoretical Coding

Theoretical codes were used to categorize focused codes and create identifiable processes of change participants experienced because of their service-learning experience. Categories created from focused codes were analyzed and compared to determine how the categories related. This helped merge codes, further developing the *Reshaping Understanding* theoretical framework into a psychosocial process.

This study solidified and expanded upon the *Reshaping Understanding* framework by identifying data cohesiveness and areas with little data support. The new sample of SMRs offered opportunities to identify cohesiveness and enhance the *Reshaping Understanding* framework by including a more inclusive variety of disability classifications. Semi-structured interviews offered more in-depth reflections and helped shape the previous framework into an identifiable psychosocial process. Participant interviews showed more openness and exposed vulnerability that was difficult to identify in SMRs alone.

Trustworthiness and Ethical Considerations

Trustworthiness is one of the most critical aspects of determining a study's quality and confidence in data, interpretation, and methods. This study demonstrated rigor by focusing on all criteria and incorporating methodological recommendations to ensure the study is trustworthy. Much like quantitative studies, which focus on factors related to validity and reliability, qualitative studies must also provide accurate reasoning as to why their data should be considered reliable. Lincoln and Guba (1985) describe the importance of the development of trustworthiness by stating:

"All the while, the naturalist must be concerned with trustworthiness. In the final analysis, the study is for naught if its trustworthiness is questionable. Activities such as maintaining field journals, mounting safeguards against common distortions, arranging for on-site team interactions, triangulating data to gather referential adequacy materials, doing debriefings, and developing and maintaining an audit trail are all directed either to increasing the probability that trustworthiness will result or to making it possible to assess the degree of trustworthiness after the fact" (p. 287).

To demonstrate trustworthiness, Lincoln and Guba (1985) identified four criteria that ensure confidence in the data: credibility, dependability, confirmability, and transferability.

Credibility

Credibility can most easily be described for quantitative researchers as internal validity. In qualitative research, repeated engagement with the participants, peer debriefing, member-checking, and journaling are all ways to ensure the data is credible. In this study, participants completed four interviews and were given the transcript from each interview to review for validation. Again, participants completed interviews with a student not involved with the data analysis to build trust and rapport, so participants felt more comfortable answering authentically and without reservation.

To help ensure credibility, prior to data analysis, all interviews were audio recorded, transcribed verbatim, and checked for accuracy by the researcher. Due to the immense difficulty in training an individual not well versed in GT to assist with data analysis, the researcher planned and led meetings with two members of the dissertation committee who have experience and expertise in GT to discuss the data analysis and gain additional input. Two committee members examined and verified the initial codes of collected data. The researcher and committee members discussed the potential categories and re-examined the data for clarity and refinement. The psychosocial process for the current study was constructed with the assistance of committee members by confirming relationships and themes compared to the *Reshaping Understanding* framework.

Dependability

Like reliability, dependability suggests that the data is stable throughout the study. Unlike quantitative studies, though, it must be understood that the conditions of this study can change throughout the study due to unexpected absences, difficulty with plan implementation, and other uncontrollable conditions that may affect the participant's

reflections and interviews. During the interviews, participants were asked if any client or participant absences could have impacted their interview. Procedure logs were made to record how the data was collected to ensure no deviation from the identified methodology.

Confirmability

Confirmability focuses on the neutrality of data or whether the findings would be similar if the study is replicated precisely how it was conducted initially. The researcher kept memos and a progress log detailing their decisions and analysis throughout the study to ensure confirmability. The notes were shared with dissertation committee members to prevent biases from the researcher. Before each subsequent interview, participants were asked to review their previous interview for clarification or confirmation of the transcribed interview. This helped ensure that participant interviews were analyzed with the participant's approval of the data collected. Exact data collection and analysis methods from the previous study were employed in the current study, only deviating from the addition of semi-structured interviews; this provided an added level of confirmability.

Transferability

Transferability can be considered comparable to external validity, and the question is whether another study would gather the same results as the previous study. While it is challenging to provide certainty on transferability in GT studies, providing enough detail regarding the description and background of the study, the location, and the participants can allow for a better understanding of the process used to enable others an opportunity to discern whether a similar study could provide similar results. This study

involved detailed background descriptions of the setting and sample and the method behind data collection and analysis to assist in transferring to comparable situations.

Ethical Considerations

When conducting any research study, it is imperative to be alert to possible ethical issues. Failure to do so could quickly unravel a study and jeopardize the participant's comfort in completing the study. Being alert of these issues involves ensuring participants are aware of the risks involved in the study and how these risks will be minimized.

Before beginning any data collection, the Institutional Review Board approved the study. Prior to this study, potential participants were given an informed consent form with expectations for participation in the study, information on how the data would be collected, who would be conducting the semi-structured interviews, a list of potential risks of participation, how these risks would be minimized, and an explanation that they could choose to cease their participation at any time during the study.

The data was collected and coded after the participants' service-learning experience to minimize participant concern over providing authentic reflections and interviews. The researcher did not grade any of the participants' written work during either semester, and an individual uninvolved in the course conducted the semi-structured interviews. All data was deidentified, and a participant identification number or alphabetic letter was given for analysis between collection methods. Participants were informed that while their information and data would be kept confidential and deidentified, there may still be a risk of identification. To minimize this risk, all data was

encrypted in a private file on the computer, and any tangible information was locked in a secure location.

Researcher Subjectivity

My interest in examining the psychosocial processes undergraduate students experience when working with IWD has a partially direct link to myself through scholarship and study. It also has roots related to personal experience, societal observation, and as a former teacher of adapted physical education. I have worked with IWD for almost two decades and have continuously researched best practices in teaching and working with IWD. This has much to do with my desire to provide IWD opportunities they often do not have. As a former educator in a public school, I witnessed the reactions and inaccurate assumptions that existed among students and teachers unfamiliar with disability. Encountering families who became relieved and overjoyed that their child could participate and enjoy physical education actively proved to me the importance of exploring why these misconceptions exist and finding ways to change societal perceptions of IWD. Understanding that those unfamiliar with disability often have preconceived perceptions of IWD is a significant factor in my interest in this study.

Chapter 4- Data Analysis/ Results

Chapter four describes the results of the data analysis and comparison of the two data collection methods with the *Reshaping Understanding* framework. This section will also include how the data supported and refined the previous framework.

Addressing Limitations

This study was designed and conducted using the constructivist GT method developed by Charmaz (2014). Constant comparative data analysis was used to compare a previously developed theoretical framework (*Reshaping Understanding*) to data collected through a new sample of reflections and semi-structured interviews. The previous study only provided SMRs on ten different clinic clients, which created a lack of diverse types of disability and, therefore, a possible study limitation. To mitigate this limitation, this study included a wider variation of disability types, allowing for a more descriptive sample of participants' service-learning experiences. The earlier study represented only two clients with a physical disability, while the current study included five clients with a physical disability and eleven with dual or multiple diagnoses (*See Table 6*). The second limitation was reformed by utilizing semi-structured interviews to encourage participants to be open and honest about their experiences during the clinic.

Identifying the Psychosocial Process

Upon completion of the data analysis, it was determined that the stages of change and threads were accurately depicted in the previous research; however, to better illustrate the psychosocial process, the framework was renamed to *Cultivating Understanding*. This process was renamed because cultivating refers to preparing and

Table 6: Disability Diagnoses Between Studies

	Reshaping Understanding (n= 10)	Current Study (n= 20)
Individual Diagnoses		
Cerebral Palsy	2	5
Autism	2	4
Attention Deficit Hyperactivity Disorder		
Fragile X Syndrome	1	
Dual/Multiple Diagnoses		
Attention Deficit Hyperactivity Disorder/ Autism		1
Deaf/ Autism		1
Attention Deficit Hyperactivity Disorder/ Learning Disability/ Behavior Disorder		1
Cerebral Palsy/ Intellectual Disability		2
Down syndrome/ Intellectual Disability	5	2
Attention Deficit Hyperactivity Disorder/ Behavioral Disorder		1
Autism/ Behavioral Disorder		3

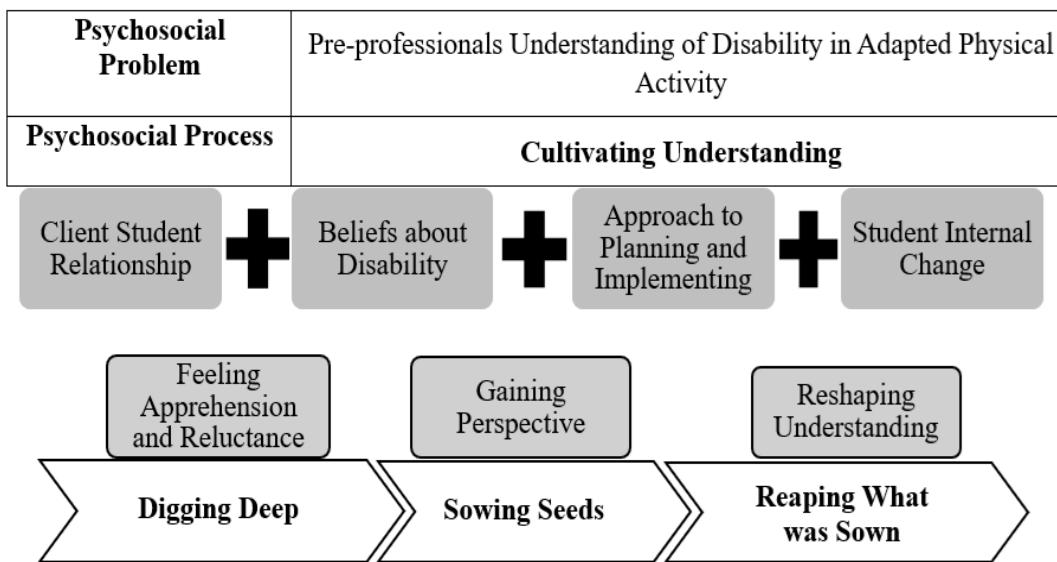
fostering the growth and development of something (Merriam-Webster, n.d.). In the service-learning experience, students receive instruction and assistance as they develop their skills in working with IWD and their knowledge and perceptions about IWD. As such, each stage of change was also renamed to illustrate better where participants were in this development. The *feeling apprehension and reluctance* stage was renamed to “*digging deep*” as students began their experience with fear and anxiety but knew they needed to “dig” deep to feel more comfortable with the experience. The second stage, *gaining perspective*, was reidentified as “*sowing seeds*.” By this stage, students had two weeks of experience. They were starting to understand how building relationships and making changes to planning and implementing helped prepare them to begin seeing what could happen if they planted the seeds (knowledge and perception) into their experience. Finally, the *reshaping understanding and bias stage* was renamed to

“reaping what was sown,” as students gathered all of the knowledge and experience they gained throughout the clinic to see the results (harvest) of their experience. This study refers to the renamed stages while identifying a proposed psychosocial process (*Cultivating Understanding*) (See Figure 3). The following sections illustrate how the new samples of SMRs and semi-structured interviews supported and refined the *Reshaping Understanding* framework and transitioned into the identified psychosocial process, *Cultivating Understanding*. To review a more condensed version of the theoretical data analysis, see *Appendix D*.

Small Moment Reflections²

This study’s comparison to the *Reshaping Understanding* data remained identical regarding the stages of change. There continues to be a significant phase shift between the *digging deep* and *sowing seeds* stages. It is difficult to identify how or why this shift occurs. It could be related to changing one’s view on disability or developing a client’s

Figure 3: Edited Reshaping Understanding Framework- Cultivating Understanding



² Participants were identified by chronological number.

trust, resulting in better planning and client engagement, leading to increased confidence. Another possibility for this shift could be related to the amount of contact they have had with their clients. Perhaps, as suggested by contact theory, the length and amount of contact played a role in the shift.

The phase shift between the *sowing seeds* and *reaping what was sown* stages was more subtle. Still, their shift was visible in how participants' development shifted from a narrow focus on only the experience each week to a more significant focus on their clients and themselves over their entire experience. For example, participants were happy to see their efforts pay off by the end of the clinic. *Participant # 3* stated: "... This was a huge accomplishment because we have been working on this for so long. It helped me feel that what I had been doing was worth it, and this is a huge victory" after working on a skill for an extended period. *Participant # 7* was impressed to see her client's level of support outside the clinic. "Something else that happened during the ceremony was after she got her award, X's little sister gave her a hug, and it shows that she has a great support system and that her family is so proud of her."

While the stages of change remained unchanged, there were some differences in the codes and the amount of focus placed within each thread. The current SMR sample included a more expansive set of focused codes, adding dimension to the previous study. Further examination led to the deletion of codes that were not supported by this study. Explanations in this chapter focus on the new or revised codes that helped support and refine the *Reshaping Understanding* framework. Some codes identified differences unique to the latest data set and offered a different perspective on participant experiences. The following sections provide information on the data from this study, with limited

information from the previous research unless a significant discrepancy is identified.

Digging Deep

Participants' emotions were a mix of excitement, nervousness, hesitation, and worry. Their anticipation of the experience was likely influenced by their experience working with IWD, which was a crucial factor.

Client-Student Relationship

Participants consistently expressed the need to establish trust with their clients, a crucial aspect of the client/student relationship. They also acknowledged the importance of mutual understanding and effective communication in client interactions. Some initially had difficulty learning to communicate with their clients, some due to disability-related barriers, and others due to difficulty with receptive and expressive communication skills. *Participant #13* explained:

“This was the moment where I learned how to instruct X effectively. By using one or two worded cues, he would follow my instructions very quickly. In the obstacle course, I would say things like ‘Step here’ or ‘Look.’ This will ultimately allow me to clean up his form in activities because I know how to communicate with him more effectively.”

Beliefs about Disability

Most participants described being surprised and encouraged by clients' effort and enjoyment more than expressing their surprise at the client's ability. *Participant #14* felt proud of their client when they “...saw X step outside his comfort zone and perform an exercise he didn't feel confident performing last week. I felt proud that I could encourage X to attempt to do something he doesn't do often and build upon his confidence.”

Participants also felt satisfaction and pride when their clients were focused and engaged in learning and improving skills. *Participant #20* described a moment that displayed his client's unconscious focus.

“XX, his mom, and I went upstairs to the gym after the pool. I was holding XX’s hand, and I happened to lead with my left foot, which XX struggles with. XX’s mom immediately noticed that XX was trying to copy me. Since XX saw me start with my left foot, he did the same. ... XX, who doesn’t like the stairs, decided to challenge himself to imitate me. Without trying too much, we worked on something that is a goal for XX’s mom to improve!”

While these codes/ experiences may not explicitly describe participants’ beliefs about disability, they raise the question of whether the described experiences could have resulted from bias and assumptions about their client before beginning their service-learning experience. That is, statements of surprise about ability or success implied an otherwise previously held belief.

Approach to Planning and Implementing

Participants experienced difficulty with the amount of detail that went into planning for their clients. They struggled with planning for and making modifications when activities were not working as originally planned. They recognized the need to improve the client's understanding of activities and use different types of instruction. Most participants struggled with modifications during the first two weeks of clinic.

Participant #8 stated: “I had to modify a lot of the activities I had planned, and I started to feel a little unorganized since some things weren’t going how I planned.” *Participant #16* realized the importance of using different ways to instruct their client by explaining,

“The moment that I found to be the most meaningful was when XX was in the pool, and we had been working for a little while to get him to perform a proper breaststroke kick or ‘froggy kick,’ and after showing him demonstrations and physically guiding his legs, he was finally able to do it quite well and all on his own. It’s not perfect and needs more power, but for his first go at it, I was very impressed!”

Participant #9 described breaking an activity into small steps to help the client understand.

“It was nice to see the progression from step by step to a smooth walking lunge. I was proud of his progression. This will help me in the future as I will be able to see when he is thinking through small steps to a big movement. I am excited to see some of this ‘struggle’ so I can get a better understanding of how to program for him.”

As participants continued working with their clients, they realized the importance of modifications in creating plans that allow success to be felt equilaterally.

Student Internal Change

Not many codes focused on internal change during this stage of the service-learning experience. During weeks one and two, it can be challenging to predict student internal change. Some participants reflected on feeling nervous and, at times, discouraged with their anticipated experience and outcomes. *Participant #17* described feeling anxious in anticipation of the experience. “I was very nervous because I didn’t know much about what was expected just because I would be working with someone I did not know.”

This study supported most of the theoretical codes in *Reshaping Understanding* at this stage. Some codes were reworded or recategorized for refinement, and some were added to enrich the *digging deep* stage. The data suggested that planning and implementing were the most challenging aspects of this stage. Participants expressed struggling to feel comfortable and confident during the first two weeks of the clinic; however, with persistence, improved planning, and “*digging deep*” they were hopeful the experience would move in a fruitful direction.

Sowing Seeds

This stage has shown significant changes in participants' understanding of disability and APA. As mentioned earlier, an undiscovered phase shift between *digging deep* and *sowing seeds* allowed students to refocus on their growth and development.

They began to experience success and found confidence and pride in their effort. This stage was best supported by finding a connection with their client and observing their client's enjoyment and improved engagement.

Client- Student Relationship

By week three, most participants had realized an established connection with their client and recognized similarities in personality and determination they shared with their client. *Participant #14* stated:

“One meaningful moment was me and X discussing our siblings. We shared how we spent time together with our siblings. This moment was significant because X and I found commonality by sharing our thoughts on our siblings. I felt that our bond strengthened even further with our conversation, and I believe it encouraged X to perform the rest of the activities during the session.”

Additionally, *Participant #17* found similarities in their client's competitiveness when they played a small group game with another pair.

“We went to them and asked if we could play each other, and the other group said yes. So we were playing, and I saw her competitive side come out as soon as we got a point ahead. She was almost insisting on the ball, which reminded me of how I am when I am feeling super competitive. This gave me extra insight to see past her disability and realize she is like every other kid trying to compete in what she finds fun.”

The similarities recognized by participants pose an essential aspect of their experiences. They further demonstrate the connections that can be easily formed when people are open to learning about one another. This could help describe the evolution of the psychosocial changes they were experiencing.

Beliefs about Disability

Participant reflections continued to be similar to those about disability in the *digging deep* stage. They focused on seeing client enjoyment and engagement, which led to recognizing client success and improvement. Most participants discussed seeing these

things as one of the most significant moments of their clinic during this stage. *Participant #4* expressed:

“In the pool with volleyball, X set a goal to get 20 hits without letting the ball touch the water. He set a goal in the gym to get 500 points in our bucket ball game. He struggles and sometimes gets upset throughout both, but he never gives up; he just gets more into it as he knows time is running out. This is why it’s meaningful: He is focused on his goal and wants to succeed, so it’s good to see him not giving up and still working hard.”

Participant #2 was proud of her client’s success, stating,

“Not only is she becoming stronger, but she has made the mind-muscle connection of how to move effectively in water, which is a great safety skill. I have loved working with X and seeing her improvement. X's level of excitement was off the charts.”

Participant reflections focused on engagement and enjoyment instead of looking past disability labels, much like in the *digging deep* stage. This could indicate a shift for several reasons related to the participants' experience level or the variation in the client's disability.

Approach to Planning and Implementing

As participants' experiences continued, they recognized the importance of implementing the instructional and modification methods they were learning in class.

Participant # 13 stated:

“He can be very stubborn with his habits, and I haven’t been able to find a way to change them until now. Plus, I’ve finally mastered the technique of keeping X’s attention and having him remember the process. Knowing this, I’ll be more successful with future activities as I now better understand maintaining X’s attention and teaching him.”

One notable code in the current study was the participants' realization that they needed to create activities that incorporated more of a challenge for their clients.

“Something X should work on next time at the clinic is to have her do activities that may be out of her comfort zone to work on her confidence and be more open to activities that might challenge her” (*Participant #7*).

Participants did not heavily focus on their approach to planning and implementation in the SMRs during this stage as much as they did on their “beliefs about disability” and reflections suggestive of internal change. Again, this could indicate that participants have a psychosocial shift based on their experience with others and how it has impacted them instead of how their approach to planning and implementing leads to a feeling of success.

Student Internal Change

This study supported the *Reshaping Understanding* thread of student internal change without code variation. This could indicate that the theoretical codes in the previous study were correctly identified. The repetitiveness could suggest that this is potentially a valid identification of student internal change and transfer to other similarly repeated studies.

The *sowing seeds* stage of change helped support and fine-tune the *Reshaping Understanding* theoretical framework by identifying similarities and omissions in participant reflections. It also identified specific codes that were not identified in the previous study. Compared to the last study, there was less reflection on the approach to planning and implementation and student internal change. However, in the original framework, these threads were heavily concentrated, which could explain why there were not many changes to these threads within this stage.

Reaping What was Sown

The final two weeks of the participants' experience illustrated even further change as they concluded their service-learning experience. While most of the codes within each thread were similar, two of the threads uncovered increased detail, while two others did not show any change in detail.

Client/ Student Relationship

Participants still reflected on their friendships with their clients but also expressed interest in learning more about them outside the clinic. They were interested in their clients' experiences with school and within the community. *Participant #11* stated:

“One moment that stuck out to me this week was when AB came by and asked X about his schooling. I had never really asked X about this before, and I should have earlier. ... He then talked about some of his interests for the future. ... I liked this conversation because we had never really talked about his interests in school before. It was cool to hear about his learning process and the interests he wants to pursue academically.”

Participants also identified how much the experience had led them to appreciate the client and family to offer them this experience. *Participant #10* expressed:

“Flabbergasted is the only word to describe how I felt during and after our final session together. X exceeded all expectations for our final morning together. That kid has opened my eyes to so much and taught me how to communicate in new ways. I am forever thankful for the MAC, X, and his family.”

Although there were not highly notable changes to this thread, participant reflections about experiencing the mutual appreciation between the client and family showed how the focus originated with themselves and the client and gradually evolved to include the family in their experience.

Beliefs about Disability

The beliefs about disability thread showed more variation than any other during this stage compared to the previous study. Previously, participants reflected on seeing the client as an individual and expressing the need for societal change, which was not highly replicated in this analysis. Participants were happy to see their client's success and levels of independence improve throughout their experience. *Participant #14* reflected:

“Normally, X has to show me each step he remembers, and then I assist him with the step he's stuck on if needed. Instead, X showed confidence from the beginning and gave the correct form and technique for each repetition of each set. I felt so

proud of X since I've never seen his confidence so high before, and the fact that he never lost confidence after each set and repetition made me recognize how far he's come since the first session.”

Participants were happy to realize how strong their client's support system is, which was heavily focused on their client's siblings. *Participant #7* stated:

“Something meaningful that happened is that she was rewarded client of the week, and her mood instantly changed, which was great to see, and she immediately wanted to show her mom. I could tell that X felt very proud of herself, which boosted her confidence. She was willing to do more challenging activities, and I think her getting client of the week contributed to that. It was amazing to see her proud of herself and the support system that she has. ... Something else that happened during the ceremony was after she got her award, X's little sister hugged her, and to me, it shows that she has a great support system and that her family is so proud of her.”

There was a lack of reflection on recognizing a need for societal change, which differs from the original study. Still, because so many expressed that feeling in the previous research, removing it as a code within this thread was unnecessary. Although it was not seen in current reflections, keeping the code focused on societal change was necessary due to the last study's volume of reflections focused on societal change.

Approach to Planning and Implementing

This study had very little focus and no variation in reflections on participants' approach to planning or implementation in the final two weeks of their experience. The original *Reshaping Understanding* framework identified that participants felt confident in their ability to plan and implement successfully using information learned from lectures. They reiterated the importance of being prepared to quickly change methods of instruction and implementation. The lack of variation suggests that both studies' original codes were transferable.

Student Internal Change

There was also very little change in data analysis in this stage compared to the original framework. Still, a couple of notable reflections helped reiterate the codes from the previous study. The fact that there were not many changes in this stage of change compared to the original study suggests that the latest set of participants' SMRs helped support the original data collected.

The new sample of SMRs supported and refined the original framework by removing some codes not heavily identified within this study, finding codes repeated in both studies, editing codes that needed clarification, and supporting the framework by identifying new codes within the new data. To highlight the latest data, this analysis did not provide supporting evidence (quotes) of the codes supported by both studies. These repeated codes were not altered in the updated psychosocial process. The new sample of participants and the increased variability of disability allowed the limitation in the *Reshaping Understanding* study to be resolved, leading to the identification of the *Cultivating Understanding* process.

Semi-Structured Interviews³

While the interview responses gave a more descriptive picture of each participant's experience, comparing the interview data with the original study did not provide any evidence of the need to alter the stages of change. The stages of change were, however, renamed to reflect the newly identified psychosocial process. The threads previously established in *Reshaping Understanding* were precisely identified, allowing

³ Interview participants were identified alphabetically.

them to remain unchanged. The results expanded and refined the focused codes identified within each stage and thread.

Pre-Clinic Interviews

Semi-structured interviews were conducted approximately two weeks before the clinic experience began to allow participants to acclimate to the interview process and gain some background information about the participants' previous experience with IWD. The researcher also aimed to gather information on their thoughts and feelings toward beginning their clinic experience. Out of 11 participants, six identified a lack of experience with IWD. The five participants who identified having experience described varying levels of experience, from simple interactions to previously working with IWD in a structured setting.

Many were overwhelmed and worried about their ability to be successful with planning and implementation to make the clinic a successful experience for their client. *Participant #3* summarized their concerns as “creating good enough plans to help my client succeed in goals made with the client and the family. And making it engaging enough that my client can stay engaged a good majority of the time.” Other participants were concerned with being able to implement modifications correctly. *Participant H* said,

“I’m beginning to understand the concepts and how to think of modification. You know where to start, how to assess the situation, and think about the person first. I’m not 100% comfortable with it. I’m nervous that I will try, you know, to make modifications to movements. I’m nervous that if I’m having a hard time coming up with a modification, and a kid sees it, that it might make them less motivated to participate, if that makes sense.”

Participants remained hopeful for a good clinic experience to learn more about planning for IWD and provide their clients with a good experience. *Participant D* hoped

“to get to know the client on a personal level, build a trusting relationship with them and their family. I hope to become a role model for my client and make

exercising and movement fun for them. I want to make them feel empowered. I want to be a person in their life that they feel encourages their interests and their passions.”

One question that the participants were asked was avoided or was very vague. They were asked about their beliefs about IWD. Three participants expressed being comfortable with IWD, but only one participant expanded on their beliefs about IWD. *Participant D said:*

“I am so excited to start this clinic. I think children with disabilities often they're overlooked, or they're glorified in the way that it's like, look, they're the superhero. And in all honesty, they're still a child and just trying to learn, you know, they're not some magical superhero for who they are. They have different modifications for how they learn, walk, talk, and move their body. And they want to do the same things that people without disabilities want to do. They want to do sports, they want to participate in classes and discussions, they just need extra help in certain areas.”

The pre-clinic interviews exposed some of the participants' willingness to be vulnerable and honest in their thoughts, feelings, and apprehension related to the clinic. Allowing oneself to show vulnerability is difficult but offers opportunities for personal growth and resilience. In the case of the pre-clinic interviews, realizing participant vulnerability provided the researcher with a better understanding of how the participants were processing their upcoming clinic experience. Additionally, this data gives some insight into how preparation related to self-efficacy might influence their first initial interaction with their clients.

In-Clinic Interviews

Participants completed their interviews after weeks two, four, and six of the clinic. They were asked how their service-learning experience began, how they felt it was progressing, and how it concluded. The interviewer prompted participants to elaborate on their experience to gather as much as to gain a complete description of their experience. Across all data interviews collected, data analysis was similar to the *Reshaping*

Understanding framework, with some codes allowing for the expansion of data in the stages of change and threads within each stage. Some original codes, however, were not a significant focus throughout the interviews, resulting in the refinement and simplification of codes. Again, codes repeated in both studies were not the focus of the analysis but did help reinforce its significance.

Interview Two- Digging Deep

During the second interview, participants were asked to describe their experience with the clinic, their initial thoughts after meeting their client, and how preparation for the clinic was going. These questions allowed participants to freely discuss their experiences while keeping the participants on topic and trying to draw as much information out of them as possible if they were struggling during the interview. Most of the participants' descriptions mirrored the *Reshaping Understanding* codes, although a few additions were a common trend among interviewees. Overall, participants felt overwhelmed and unsure of how their experience would unfold. They worried primarily about getting clients to comply with the plan, learning to communicate with their clients, and planning out activities that would be effective and beneficial.

Client/ Student Relationship. Some participants discussed the need to learn how to communicate effectively. *Participant H explained:*

“He's a very literal person. So, he takes things very literally. When you explain something to him, he understands it exactly how you say it to him. Most people don't always speak in literal terms. So I'm definitely modifying- starting to try to modify the way I give instructions because I know, if I say this- this is what he thinks I mean. You know, so, and I really came to a realization that like, he doesn't have an issue with cognition or understanding. He understands what I'm saying perfectly and exactly how I'm saying it. It's just we're not used to people taking us literally. We paraphrase things, you know, and stuff like that. So it's really realizing that I need to adjust how I'm giving instructions.”

Understanding client likes and dislikes was a topic many students identified as a way to help build a relationship with their clients and assist with client willingness. *Participant*

D stated:

“I understand what my client likes and dislikes, and I'm really challenging myself to put more games that are more interactive because that's how I can capture my client's attention. So I'm having to get creative with it; I'm having to take basic movements and exercises and make them more fun. My client and his age is a child, so I need to make sure to capture his attention, make it fun, and make it so that my client wants to do it.”

Beliefs about Disability. When participants were asked about their initial thoughts about their client, there appeared to be a new common trend. Participants were surprised at the client's willingness to participate in activities. *Participant A* described:

“I think I was surprised with how open she was going to be with trying new things. Because just like the packet and like information we receive about our client before we get to meet them in person, just made it seem like- like she would not be willing to do some specific activities to full extent of how they were intended to be done if she didn't want to do, but I put them in the plan anyway... I thought I was going to face like a lot more struggle to get her to want to do them.”

Participant I shared similar thoughts, stating, “He's very energetic. He's always willing to do something; it's just whether or not that's something that he wants to do, and he will often tell me no.” The new trend could be related to the participants being open and honest about their experiences with their clients.

Approach to Planning and Implementing. After week two, many interview participants identified the struggle they were experiencing with creating modifications, similar to the previous study. The responses mirrored the earlier framework of the interview, in which participants expressed feeling overwhelmed by the planning details and defeated at times by struggling with client focus. One code that was not heavily focused on previously but implied in other studies was that identifying modifications was the most challenging aspect of planning for clients. *Participant G* explained:

“The most difficult thing I've experienced with preparation is planning how to make modifications for the environment, individual, and task (activity), and how to simplify them or make them more complex. I think I find it easier to modify exercises because that's what I do in my job outside of school. So trying to identify ways to progress or simplify exercises is more difficult for me.”

Student Internal Change. Two weeks into their experience, interview participants did not express much internal change. Still, some discussed feeling unprepared and worried and expressed that measuring success differs for everyone. *Participant I* said, “The first day was an eye opener, but necessary, it was absolutely needed, to be shocked into just how much work it's going actually to take. My first thought was, what in the world am I getting myself into?” *Participant F* recognized,

“You have to be innovative and think about it from how you would normally do it. With your client, you have to consider the fact that what you might normally do to measure client success may not be the same way you would measure it with someone else.”

The anxiety and worry participants felt were common among them. While some participants felt unprepared, they also remained hopeful that the experience would benefit their clients and themselves.

The *digging deep* analysis of interviews did not show much change compared with the Reshaping Understanding framework. Due to the extensive communication during the interviews, previous codes were heavily supported. Only a few prior codes were reworded for clarification purposes, and a few new codes helped support each thread. The newly established codes in this stage added dimension by identifying more profound responses than the SMRs.

Sowing Seeds

The third interview consisted of questions about how participants' experiences with the clinic changed. They were asked how their experience had changed, how their

experience was going with the client, how they felt about their client, and what experiences may have affected them personally. Data analyzed from interview three revealed that participants were experiencing a substantial phase shift during their experience. As noticed in the previous study, something that remains unclear occurs between the *digging deep* stage and the *sowing seeds* stage. The last study showed that participants felt more comfortable working with IWD and their clients. Participants were more confident in planning for the clinic and experienced success implementing their plan with their clients while realizing the mutual benefit of the clinic.

Client/ Student Relationship. As participants gained more experience and interaction with their clients, trust and rapport became commonplace. This connection helped clients and participants understand each other regarding needs, wants, and what methods work best for motivation.

Participant K expressed,

“The first week or two was more like getting to know my client. And my client was like a bit shy at first, but now he feels more comfortable with me. Every time my client comes in, his guardian is always telling me how he's always excited to come and this and that. He's more talkative now, too. He's more comfortable around me.”

Participant D expressed pride in the mutual understanding between their client, stating:

“I've gotten him to do something that he was initially scared of and seeing him modify himself. Seeing his strength and watching him want to push himself made me very proud. I did feel connected to him because he was understanding what I was wanting and I was understanding what he was wanting. And that was a very special moment for me.”

Participant J shared an understanding of what motivates their client:

“When I try to make my plans, I try to always have at least one fun activity that I can sort of motivate her with, especially if we're in the gym. And if I have a lot of crawling or rolling over activities that she doesn't like to do, she really likes other things, like when we do arts and crafts. So I find that putting a fun special activity at the end and telling her about this while she's trying to do the less preferred

activities keeps her motivated to keep going through it, and she's okay. The faster we get it done, the faster we get to the activity at the end.”

Beliefs about Disability. As participants continued through their experience, their beliefs about disability turned to realizations about personal bias and how this led to the underestimation of the client's ability. This offered insight into participants understanding that IWD are the same as everyone else even though society often makes them seem different. *Participant I* discussed how the experience made them realize the bias they were unaware of until this experience:

“I came in with almost like a biased view. I didn't think it was biased at the time. My thought process was, you know, if somebody was disabled or whatever that disability may be, there are obviously some things that they can and cannot do. That's just how it was. But now, with working and seeing other kids with various disabilities or various conditions, seeing them do the same activities as I was when I was their age is awesome to see. It was eye-opening. It kind of made me need to take a step back and re-evaluate my mindset, my thinking of, um, what it means to be disabled.”

Participant B stated, “It made me realize, especially working up close with her, that they are the same as everyone else. And I think there's no actual difference compared to what society makes them be.”

Participants also expressed the need to stay more open-minded when encountering unfamiliar experiences. *Participant J* explained this best by saying:

“I realize the importance of keeping more of an open mind because you hear the term disability, and you don't know exactly what your client will be able to do. And maybe sometimes we imagine the lowest level of independence, and you think, you know their abilities. ... I've been very impressed by my client. She reminds me that in the future, I'll work with other IWD. It's important to keep an open mind because you shouldn't assume that they can't do it because you're not helping them, and that's what you're supposed to do.”

Working with clients with disabilities allowed participants to begin identifying the need for personal change by keeping an open mind and trying to remain unbiased when encountering new people and experiences.

Approach to Planning and Implementing. Participants realized the need to plan for the individual and meet the client where they were, which allowed them to feel more confident in planning and making modifications. *Participant G* stated:

“The first couple of weeks, I kind of just did the tasks like how I had them in the order that I planned them, but I've started to like change the order of the tasks just because I've noticed that she's a lot more productive when we do change the order. ... Um, she responds a lot better when we change up what we're doing. And also, I've just started to get in more of a routine with her like at the beginning and end of clinic, which she has, um, responded well to in progressing through the beginning and the end of clinic.”

Participants also felt more comfortable quickly recognizing the need for modifications and implementing them. *Participant B* expressed:

“I definitely challenge her more and take a step back when we need to. During the first couple of weeks, I was cautious, and I don't think I tested her as much just because I wasn't aware of what she could do or handle. I think I've definitely identified what I want her to focus on, and I think I'm understanding planning and implementing the modifications and how to measure her as well.”

Participant D stated, “I feel a lot more comfortable working with my client daily based on his mood. And I meet him where he is instead of trying to keep going with the plan I have created.” The participant recognized the importance of approaching planning and implementing for each of their clients as individuals instead of using a general plan for fitness and physical activity.

Student Internal Change. Participants began expressing realizations they were starting to experience as a result of the service-learning experience. Several described the experience as mutually beneficial and realized the experience is about more than just the grade. *Participant C* said:

“ I think the first two weeks, I was pretty nervous. And I really wasn't confident in myself, and I felt like maybe what I was doing wasn't really like making a change for her or affecting her in any way. But, um, I think now I realize that, like, I mean, like, she likes coming to the clinic. It's cool to see that what I'm doing like

has an effect on her. But also she's helping me grow as a professional and also like just a person.”

Additionally, *Participant G* stated:

“A lot of times I think in school, and especially like this class, I'm worried about getting the grade. Um, but my client last week received the client of the week for one of the previous weeks, and just seeing how excited she was about that, she was like telling me that it wouldn't have been possible without me, and I just realized that it's much more about her experience. And my grade in this class, um, and like the clinic experience, is not for me. Obviously, I'm benefiting from learning how to program for IWD, but if not, it's a program for her. Everything I do should be structured to her and not what I want to do necessarily or what I think would work best, but it's what she would respond to the best.”

As participants became fully immersed in their service-learning experience, it was evident that they were beginning to experience a change in their perspectives of not only the experience but also of IWD.

The analysis of interviews in the *sowing seeds* stage showed more additions to threads than any other. The changes focused on the client's individuality and realizations about disability. Some previously identified codes were removed during this stage due to a lack of supporting evidence during the interviews, but most remained. The data analyzed in this stage showed a high level of growth and development among the participants throughout each thread.

The immense increase in students' development during this stage mirrors a significant phase shift identified during the previous study and the new sample of SMRs. Even though the reasons for this are not easily identifiable, there does seem to be a connection between repetitive contact with the client, which appears to result in increased levels of self-efficacy. Another possibility could be the increased experience participants have had with planning, which is leading to success for their clients. This will be further explored in Chapter Five.

Reaping what was Sown

The culminating interview revealed further development and growth in the participants through their beliefs about IWD, their approach to planning and implementation, and internal change. It is notable, however, that most participants did not reflect on their relationship with their clients.

Client/ Student Relationship. In the previous interviews, participants repeatedly discussed the evolving relationship between them and their clients; however, they did not provide much detail about their relationship with their clients in the final interview. This could be due to all eleven participants having previously identified that rapport with their client had been established and mutual understanding and respect had been identified between one another earlier in their experience.

Beliefs about Disability. While participants continued to identify their positive change in beliefs about IWD, more focus was placed on how generalized information about disability can be misleading. *Participant I* expressed that the information they received and interpreted in the pre-clinic interview with the parents led him to underestimate their client's ability.

“He showed me a higher level of performance than I was told when we first had the interviews with the parents. I was told that he couldn't swim. And that's as far as our conversation of his pool abilities went. So I feel like if I had known that he could do more in the pool, I could have planned my activities to be more up to his level- up to his true level of ability.”

Some participants also expressed that what one individual thinks about another may not be accurate, and remaining unbiased is essential when working with new clients.

Participant H similarly expressed the misconceptions from generalized information they had before beginning the clinic.

“I think my views and I think reflecting on my own biases about how people in society think about people with "disabilities" or whatever disorder they want to say. It really like opened my eyes and help me reflect on that really highlighted the concept of like how handicapping is done by society on an individual. And it really, like, I- I saw that firsthand in my own biases. I thought, Oh, I think this person has a problem with X, Y, or Z. But really, it- it could be us that have a problem, you know, communicating, or I have a problem, you know, I'm not figuring out what modifications to make, you know?”

Approach to Planning and Implementing. As participants finished their service-learning experience with their clients, they realized the importance of structure. They identified the need to be willing to change plans to help with client participation. They described the importance of “give and take” and providing autonomy for clients.

Participant C described their experience by stating:

“My client and I got along well. We went back and forth, like many give-and-take on some things. If he wanted to try a different machine, I'd be like, okay, we have to do this and this before we can try these new machines. So we were still getting my stuff done, but he also got to explore more of the gym space. Um, but yeah. It was really good.”

That participant utilized the Pre-mack principle, a behavior management technique that asks clients to complete a planned activity before doing an activity of their choosing, to work with them to complete planned activities and grant autonomy to their client.

Participant F also described the benefits of offering autonomy to clients during each clinic.

“I was able to modify my lesson plans so that towards the end, I applied what's called a voice and choice approach. So, I would give my client the choice between two sets of 15 versus maybe three sets of 10. And then I would also give them the choice, do you want to listen to this song or do you listen to this other song that you like? So I think that's how it really changed, um, over the course of the clinic. The experience was more so just being flexible and empowering my client to be independent by choosing how he wants to move through the lesson plan.”

Participants talked about their experience and felt more prepared and confident in their ability to plan and implement activities for any individual. What once was fear and confusion turned into confidence and recognizing how to prepare for an individual.

Student Internal Change. The identified change expressed by the participants gravitated from feeling overwhelmed by the initial experience to learning a lot about themselves and recognizing the need to remain open-minded, being open to asking for help, and discussing the feeling of society placing unnecessary labels on IWD.

Participant I expressed:

“My own biases were checked. I had the mentality that either you can do it or you can't say that you can't get better at something. Still, obviously, you have a more natural inclination towards something. ... I just underestimated their ability. And I'm glad that I went through this clinic to see my vices and really think, well, this was really dumb of me to think that way. I have a much larger appreciation of how hard these kids work at being able to do all these activities.”

Initially, *Participant J*, who acknowledged being resistant to asking for help of any kind, reflected on learning to ask for help from their client.

“I guess, if anything, they've changed me for better. I get the tenacity for perseverance, for sure. I could see it with my client whenever I gave her an activity; she always gave it a shot and easily asked questions. Even if it was hard just asking for help. I think that's really strong in a way. I know some people don't like to ask for help. I can relate to that. I don't like asking for help, but I think that asking for help actually comes from a place of strength, not weakness. I learned that.”

Labeling IWD has been done for decades, which can lead society to assume a lack of ability within the disability community as a whole. *Participant B* expressed:

“ I definitely learned that, um, IWD are really no different than any other person. I think obviously they have like a label placed on them, or you know, how society believes- what they should look like and that's not always what they are. I also learned that not everything is going to work for some people or what works for me.”

The final interview, the *reaping what was sown* stage, showed that the participants did not focus on their client relationship. Some participants discussed their beliefs about disability; however, they reflected more frequently on the internal change they experienced and the overall improvement in their approach to planning and implementation. In comparing the *Reshaping Understanding* framework with the interviews, the code “recognizing a shared understanding of needs and wants” was removed because it was identified in the *sowing seeds* stage. Participants reflected on this earlier, possibly suggesting that the phase shift participants experienced could have been more substantial than in the previous study. The final interview supported all other previously identified codes to signify agreement during this final stage of change.

The semi-structured interviews of this study were focused on resolving the limitation that previous participants could have submitted SMRs that were not entirely honest and forthcoming about their experience due to fear of being graded by what the instructor of the course wanted to read. However, the interviews identified vast similarities throughout each stage and thread when compared to the original framework. Participants of semi-structured interviews exhibited higher levels of vulnerability in their responses, possibly due to the ability to expand on their experiences rather than by selecting one significant moment during each clinic session. This may be because the interviewer was unbiased, as students felt more comfortable sharing their thoughts. Comparing the original SMR sample to semi-structured interviews did allow for an expansion of codes.

Summary

The analysis of both samples alleviated the limitations of the *Reshaping Understanding* study. Adding new SMRs and including semi-structured interviews in the study enhanced the *Reshaping Understanding* framework and allowed further development within the threads. It also highlighted the similarity of a significant phase shift occurring during weeks two through four, identifying a need to examine further why this shift continues. By increasing the sample size, albeit using different collection methods, it became evident that a process could be identified, leading to the renaming of the stages related to the *Cultivating Understanding* psychosocial process. However, it is essential to note that the new sample of SMRs was not compared to the semi-structured interviews to avoid complicating the data analysis.

Chapter 5- Discussion

The purpose of this study was to expand on the *Reshaping Understanding* theoretical framework established in a previous GT study that examined pre-professional students' understanding of disability through an adapted physical activity SL experience. The findings of this study are in harmony with the *Reshaping Understanding* framework, with the related threads remaining unchanged. The stages of change were reidentified to illustrate a psychosocial process, *Cultivating Understanding*. The focused codes that led to the reidentification of stages and threads have been adjusted not just for correction but to refine and enhance the identified process, showing that it is a living, evolving entity. This chapter will provide an interpretation of the study's results, the implications for other qualitative studies, the impact on methodology and pedagogy, the strengths and limitations of the study, and the exciting potential for future research-

Discussion of *Cultivating Understanding* Related Research Aims

Using GT helps identify psychosocial issues and processes in social groups with similar experiences. Through constructivist GT, discovering how pre-professionals develop constructs of disability through an adapted physical activity SL experience is helpful from many different standpoints. The results of this study provided ample support for the *Reshaping Understanding* framework and identification of the *Cultivating Understanding* psychosocial process; however, there were slight alterations. The *Reshaping Understanding* study provided valuable insight into the processes of change encountered by students during an adapted physical activity SL experience; however, it included some apparent limitations that needed to be addressed. As a result, the aims of this study were to:

1. Determine how data obtained for this study supports or refutes the *Reshaping Understanding* framework.
2. Refine or modify the *Reshaping Understanding* framework using data from this study.

The revisions made to the methods of the *Reshaping Understanding* study accomplished both aims. This section will highlight how these aims were not just pursued but effectively achieved, reinforcing the validity and reliability of the study.

Research Aim One

The new sample of SMRs and using semi-structured interviews as a second data collection method allowed for further examination of the *Reshaping Understanding* framework. Analyzing both sets of new data separately and comparing it to the original framework identified new focused codes and highlighted previously generated theoretical codes not discussed in this study.

New Sample of Small Moment Reflections

The psychosocial process (*Cultivating Understanding*) identified through focused codes in the new sample of SMRs supported the *Reshaping Understanding* framework by simplifying and expanding the codes within each stage and thread. Changing how participants and clients were selected and the varying types of client disability provided valid reasoning for the framework's support and enrichment. The additional SMRs were utilized to ensure the study's scope included different disability conditions and examined the cohesiveness within the current theoretical framework.

The new sample included twenty participants compared to 30 in the previous study; however, participants were not selected in the same format. Participants were

selected with client disability as the focus rather than examining 30 students with the same 10 clients. These changes in SMR collection (disability variation in clients and participant selection) allowed for increased variability in examining participant experiences and resulted in data saturation. The current study heavily supported the *Reshaping Understanding* framework but did reveal a lack of support in some threads while adding to and enriching the data in others. This allowed for the refinement of the *Cultivating Understanding* process.

Semi-Structured Interviews

Semi-structured interviews were used to resolve the identified limitation: participants' SMRs were unauthentic because they were graded. Integrating semi-structured interviews offered participants the opportunity to expand on their experience by describing more than one moment that was significant to them. Students were able to detail their experience more thoroughly and demonstrate vulnerability. Vulnerability has many different definitions and interpretations. In this case, Bruk et al. (2018) define vulnerability as “an authentic and intentional willingness to be open to uncertainty, risk, and emotional exposure in social situations in spite of fears” (p. 192). This definition fits very well with the willingness of participants to discuss their experience with the interviewer to discuss their experience with the interviewer openly. Although participants displayed more vulnerability and provided more details on their experiences in the semi-structured interviews, the data analyzed did not reveal significant changes, suggesting that the SMRs may have been honest reflections of students' experiences. This helped solidify the *Reshaping Understanding* framework and develop the *Cultivating Understanding* psychosocial process.

Research Aim Two

The study's second aim was to modify and refine the *Reshaping Understanding* framework. Integrating new data (e.g., SMR and interviews) highlighted vital changes. Modifications and refinements to the existing framework were identified as codes not seen in the latest data analysis and by identifying threads of emphasis within each stage. The original framework showed a similar focus throughout each thread and stage of change. Additionally, the existing framework was expansive in identifying various codes.

New Sample of Small Moment Reflections

The new sample of SMRs showed minor code variations throughout each thread and stages of change. Some of the most notable changes were client-student relationships and beliefs about disability. Participants reflected immensely on learning how to communicate, which could be related to variations in disability. In this particular sample, many participants were paired with clients who were non-verbal or significantly lacked language skills. Participants also recognized similarities between themselves and their client's personalities. While participants still explained that they underestimated their clients' abilities, they also primarily reflected on their clients' enjoyment and engagement, which was not identified in the original framework. The participants' approach to planning and implementing did not show many changes other than the wording within each stage of the framework.

There were two prominent aspects of refining the framework. One was the lack of reflection on the approach to planning and implementing during the *reaping what was sown* stage of change. It is possible that participants were confident and feeling successful in their ability to plan and implement. Another critical highlight showed no

changes in the student internal change thread across any of the stages of change compared to the *Reshaping Understanding* framework, even though the new sample provided ample reflections related to this thread. This could reaffirm the process of change that students experience throughout the SL experience on an internal level. With these modifications and changes to the original framework, the *Cultivating Understanding* process was simplified with the new sample. It was simplified by rewording and eliminating codes not discussed within the latest data.

Semi-Structured Interviews

The participants in the semi-structured interviews provided more detail about their experience. This resulted in multiple modifications and refinements to the original framework. Participants discussed different aspects of their experience related to the questions they were asked, and their responses touched on each thread of the established framework. Participants were tasked with needing to find ways to communicate and gain a better understanding of client's likes and dislikes. They were surprised by their client's willingness to participate and concluded that IWD are not different than anyone else. Participants felt that society made IWD seem different. Along with that same revelation, participants realized their misconceptions about IWD and recognized that generalized disability information is not always accurate. Participants identified the need to plan for the client individually and meet them where they are, which allowed them to feel more confident in planning.

Perhaps the most notable addition to the framework was the realization that allowing the client's autonomy and having a "give and take" approach to implementation was very beneficial when implemented effectively. IWDs are often not allowed to make

their own choices because others insist they cannot (Carlson, 2009). Generally, autonomy is often forgotten as an approach for IWD due to assumptions and underestimation of ability and agency. However, when provided opportunities to learn to employ autonomy, individuals can develop the skills to advocate for themselves (Björnsdóttir et al., 2015). Granting IWD autonomy allows them to advocate for themselves and choose their actions. In this case, it allowed the student and client to work together and demonstrate acceptance and respect for one another. By planning purposeful activities, participants allowed clients to select what order they wanted to do them, offered different ways to do the activities (different equipment, rules, goals, etc.), and allowed clients to choose a self-selected activity after finishing a planned activity. Ultimately, the participants experienced success with their clients and recognized the value of encouraging autonomy for all individuals.

Participants who observed the benefit that activity selection had allowed them to experience success with their clients saw the positive effects of personal agency and the motivation that can occur when being allowed to make choices. As a result, it may help participants understand the necessity of allowing autonomy for any individuals they may encounter and serve. Changing the focus of IWD, from their inability to make decisions to encouraging them to choose and express their own needs, could change how society subconsciously underestimates their abilities.

Discussion of Grounded Theory to Existing Literature

Previous research has examined individuals' attitudes and beliefs toward working with IWD in APA. Most of these studies collected quantitative data on whether individuals' attitudes changed after working with IWD. These studies have mainly

focused on utilizing the Theory of Planned Behavior (TPB) ; however, several other studies have been conducted on SE theory and contact theory. The purpose of this section is to review how results may have some relationship to existing theories and challenge how existing theories may not fully explain students' understanding and confidence related to their experience.

Theory of Planned Behavior

The TPB (developed by Icek Ajzen and Martin Fishbein in 1980) consists of attitude, subjective norm, and perceived behavioral control. Multiple studies have used the TPB in adapted physical activity, but the primary focus was only on examining the theoretical attitude tenet. While the research setting and aims were similar, little evidence suggests that this study aligns with and supports the TPB constructs (*See Table 7*).

Table 7: Theory of Planned Behavior Construct Comparison to Cultivating Understanding

Does <i>Cultivating Understanding</i> support the constructs of the Theory of Planned Behavior?	
Attitudes	<i>Inconclusive</i> - There are hints of participants expressing their feelings, comfort level, and previous experience; however, none of them overtly identify any of these as predictors of change.
Subjective Norm	<i>Somewhat</i> - Participants were required to participate in the service-learning experience, so societal influences were not obvious, but participants reflected on initial bias against the ability of PWD. This could be due to previous external influence.
Perceived Behavioral Control	<i>Yes</i> - As participants moved through their service-learning experience, their perceived competence or ability to successfully plan and work with individuals with disabilities increased through successful experiences and finding ways to control their anxiety and self-doubt.

This study's data analysis shows that the attitude construct was inconclusive. Participants discussed feeling nervous and overwhelmed about the SL experience. They vaguely identified their initial feelings, comfort level, and previous experience working

with IWD. However, the data analyzed did not show these were significant change predictors.

The subjective norm construct, not considered in previous studies related to APA, revealed some alignment based on participants reflecting on initial bias underestimating the ability of IWD. Participants were expected to participate in a SL experience, so societal influences were not obvious. Still, the initial bias expressed by many participants could suggest a previous external influence as a determinant of these beliefs about IWD. However, without directly asking the question, it is difficult to surmise how or if subjective norm played a role in student change.

The participants' perceived behavioral control was evident throughout their SL experience. Experiencing success with planning and implementing plans throughout the experience increased their perceived competence and confidence, allowing them to control their anxiety and self-doubt. By the end of the SL experience, most participants believed in their ability to work successfully with IWD.

As much as the TPB has been utilized in working with IWD, perceived competence has been identified as the most significant predictor of attitude change (Apache & Rizzo, 2005; Folsom-Meek & Rizzo, 2002; Hodge & Jansma, 2000; Roper & Santiago, 2014). However, perceived competence does not explain the process by which attitude change occurs, leaving a void in the explanation that the current study implored to establish. The idea of perceived confidence alone seems simplistic as an explanation of change. As a construct, perceived competence may change attitude, but can attitude change alone predict student perception of disability? This study revealed increased participants' confidence levels with their current clients, but it is unknown if that would

carry over to working with another IWD. The analysis of all the data in this study suggests that increased perceived competence is not the only variable at play in changing attitudes and constructing disability.

Self-efficacy Theory

The Self-efficacy theory is a highly researched theory that conceptualizes behavior change (Hutzler, 2003). This theory is a subset of the social cognitive theory developed by Bandura and consists of four constructs that define a person's ability to change behavior positively. These include mastery experiences, vicarious experiences (observation of others), verbal persuasion, and emotional and physiological states. Some analyzed data from this study support the constructs of self-efficacy theory on a person's belief in their ability to change (*See Table 8*).

Table 8: Self-efficacy Theory Construct Comparison to Cultivating Understanding

<i>Does Cultivating Understanding support the constructs of Self-efficacy Theory?</i>	
Mastery experiences	<i>Yes- When participants experienced success with clients, their confidence increased.</i>
Observation of Others (Vicarious)	<i>No- While participants were assisted by experienced staff and often observed ways to improve implementation, they did not discuss this as a meaningful moment or impactful to their experience.</i>
Verbal Persuasion	<i>No- Participants were encouraged by staff and possibly families, but their reflections did not identify these moments as significant.</i>
Emotional and Physiological States	<i>Yes- Participants reported feeling anxious, nervous, and overwhelmed at the beginning of their clinic experience. When they met their clients and began working with them, these physiological states were resolved quickly through interaction between the client and participant</i>

Mastery experiences allow individuals to build confidence when they experience success. Most participants were worried about their ability to implement plans and experience success with their clients. However, small successes allowed participants to experience increased confidence and feel success with their clients, regardless of how big

or small the success was. The increase in confidence could also be linked to perceived competence and perceived behavioral control, again bringing into question how they result in attitude change.

Vicarious experiences or observing others did not provide evidence of significantly changing the participant's belief in their abilities. They were assisted by experienced staff and, at times, witnessed the staff's success in helping their client complete a particularly challenging task. Still, participants never reflected on these moments as significant or meaningful. Seeing staff success with their client could have helped participants better understand how to implement an activity, but it did not automatically increase the confidence in their ability.

Verbal persuasion or support from faculty, staff, and families might have existed, but participants did not consider these experiences meaningful. Verbal persuasion and assistance were provided heavily during the beginning of the SL experience. During the clinic, faculty and staff are present to assist participants with implementing plans and modifying activities. They provided verbal encouragement and frequent feedback to participants each week. Still, participants may have been too overwhelmed to realize the significance that the encouragement from others may have had on their confidence. As participants gained more experience, verbal persuasion and assistance were not needed as much, which could have impacted them less. This could also reflect their mastery, perceived behavioral control, and competence toward the end of their experience.

Social and emotional states are the last constructs. Participants reported feeling nervous, anxious, and overwhelmed at the beginning of their clinic experience, potentially raising their emotional and physiological state. While these were initial

feelings, participants experienced a shift in feelings when they met and began working with their clients. They reported feeling calmer and relaxed as their SL experience continued. As these initial feelings resolved, participants consistently reflected on increased confidence.

The self-efficacy constructs aligned but did not fully support this study. By the conclusion of the clinic, participants experienced success and felt more comfortable with the SL experience, potentially resulting in higher levels of belief in their ability to change behavior. However, the constructs of this theory do not fully explain how their understanding of disability changed throughout their experience.

Contact Theory

Allport developed the contact theory based on the belief that negative attitudes and biases toward minorities could be changed under appropriate conditions- in this case, minorities would be considered IWD (Paluck et.al, 2019). While inconclusive evidence suggests this theory is concrete, some of its attributes could be feasible (Pettigrew & Tropp, 2006). This theory identifies four imperative constructs to decrease negative attitudes: equal status, cooperative goals, intergroup interaction, and support from authorities (Allport, 1954). When comparing this study with the tenets of contact theory, some evidence supports contact theory as a method in which stereotypes and bias could be diminished (*See Table 9*).

Initially, participants and clients may not have viewed each other as equals. However, as the SL experience continued, analyzed data revealed that participants realized they were learning from their clients. While it is unknown if clients felt equal status, participants reflected on the learning interchange throughout the experience. They

discovered that while they were responsible for implementing the plans, the clients were helping the participants gain valuable knowledge.

Table 9: Contact Theory Construct Comparison to Cultivating Understanding

Does <i>Cultivating Understanding</i> support the constructs of Contact Theory?	
Equal Status	<i>Somewhat</i> - Participants were learning from their clients and vice versa. Initially, participants and clients may not have viewed each other as equals, but by the end of the service-learning experience, participants identified the reciprocity of learning throughout the experience
Common Goals	<i>Yes</i> - The overall goal for the service-learning experience was for participants and clients to learn from each other. Participants reflected on being successful with clients completing activities, and participants learning how best to implement them.
Intergroup Cooperation	<i>Yes</i> - Participants and clients worked together to complete planned activities for each clinic. Participants reflected on using motivation techniques and modifying activities to ensure successful completion and cooperation with clients. Some participants even reflected on the impact of offering client autonomy on the collaboration between the pairs.
Support from Authorities/ Institutions	<i>No</i> - While participants regularly received support from service-learning faculty and staff, they did not reflect on its significance.

One main goal of the SL experience was to allow participants and clients to learn from each other, although this was not expressed to the participants. Once a relationship and rapport had been established, participants and clients inadvertently worked toward common goals. Participants reflected on being successful with clients, improving on and completing activities while learning how to implement each activity so the client would succeed. Even though common goals were not explicitly stated, the reciprocity of the experience provided an opportunity for both to experience success in their respective roles. This could be representative of common goals being established and accomplished.

Participants and clients cooperated to complete planned activities for each clinic. While groups were only pairs, there was evidence of intergroup cooperation. Participants

reflected on using motivation techniques and modifying activities to help clients succeed in cooperation and activity completion. Some participants reflected on the benefit of allowing the client autonomy when collaborating as pairs, insinuating that equal status had been achieved.

As stated in response to the self-efficacy theory construct of verbal persuasion, participants did not consider support from authorities a significant part of their experience. However, with so many other important moments throughout each clinic, the value of support may have been overlooked and not considered significant.

While participants and clients may have unknowingly shared equal status, worked toward common goals of successful activity completion, and cooperated with each other, contact theory only shows the underlying ways to change bias and beliefs. It does not represent the process by which these biases and stereotypes change. However, the tenets of contact theory reveal strong evidence that meaningful contact and experience with IWD can positively affect participants' confidence and perceived competence in working with this population.

The existing quantitative research on attitudes and beliefs about IWD in adapted physical activity does provide evidence that attitudes and confidence can change. The transformative potential of experiences with IWD in adapted physical activity, such as opportunities for interaction, rapport building, goal acquisition, and reciprocal learning, is evident. However, due to the limited data collected, how these opportunities change beliefs and attitudes is unknown. The current study not only identified the change in attitudes and beliefs toward IWD, but it also went further. It identified how participants in an APA service-learning course evolved from beginning to end. The study provided

valuable information on how change progressed and what areas helped create that change. This information adds valuable knowledge to understanding how pre-professionals change throughout an immersive APA service-learning experience, inspiring hope for the potential of transformative change in attitudes and beliefs.

Implications

This study's findings supported the Reshaping Understanding framework and expanded it into a psychosocial process, Cultivating Understanding. It provided crucial insights into how pre-professionals undergo a transformative understanding of disability in APA service-learning experiences. While quantitative studies can continue to measure changes in pre-professional attitudes and beliefs, it is essential to identify a foundational process that can facilitate a shift in the perception of disability for everyone.

Methodological Implications

Using the constructivist GT approach, the researcher identified potential bias through constant comparative analysis by reexamining the *Reshaping Understanding* framework for the current study. The researcher found that some initially identified codes did not support the analyzed data, and, as a result, some codes were eliminated due to the identification of bias and misinterpretation of the data collected. Including a new sample of SMRs with clients of varying disabilities and semi-structured interviews allowed this study to support and refine the framework and identify a psychosocial process. By refining this framework and identifying a psychosocial process, the process students experience throughout an adapted physical activity SL experience could be solidified. As pre-professionals encounter experiences in working with IWD, it becomes evident that

four themes need to be addressed pedagogically: client-student relationships, beliefs about disability, approach to planning and implementing, and internal change.

Pedagogical Implications

Previous quantitative research has identified a lack of knowledge and experience as a significant factor in pre-professional perceived competence and positive attitudes (Taliaferro et al., 2015). Except for the pre-clinic semi-structured interviews, the current study does not include information on participants' experience levels or attitudes toward working with IWD. The university where the study was conducted only requires exercise science students to take a one-credit hour class titled "Activities for People with Special Needs" prior to taking the course involving the current study. While students completed a pre-clinic personality questionnaire about previous experience with IWD to assist with clinic client pairings, this study did not disclose it to the researcher. Consequently, altering pedagogy in courses about IWD could change the trajectory of each thread within this study. What was significant and discussed repeatedly by participants was the importance of building relationships with their clients, how their beliefs about disability changed, the importance of planning and implementing individualized plans, and how the experience impacted them personally.

Client-Student Relationships

When students began their SL experience, many lacked the confidence to forge client relationships. They felt anxious and overwhelmed about how to build trust and communicate effectively with their client. In the *digging deep* stage of change, participants recognized the impact of building a connection with their client. For example, when meeting their client for the first time, many clients were shy and hesitant

to trust their students. However, once the clients felt valued by their students, they relaxed and began communicating, leading to a healthy rapport. Many participants identified this as a moment when they witnessed “small successes.”

This uncertainty could be lessened by offering more opportunities for students to meet and interact with other IWD through volunteering prior to taking the course or in another setting that focuses on IWD. Students may feel comfortable at the beginning of the clinic experience to identify how to develop trust more quickly. For example, as part of their professional training, students are required to call and speak with their client’s families before starting the clinic, but this may not be enough. Many students may benefit from meeting and interacting with their assigned clients before the clinic. This initial meeting may provide what students perceive to be an automatic connection and perhaps lessen their reported fears. Additionally, more opportunities for pre-professionals to gain knowledge and experience working with IWD could change the rate at which students feel comfortable working with this population. These increased opportunities might allow students to feel more confident, but finding ways for the client to become comfortable and familiar with their student is also necessary.

Beliefs about Disability

People who lack adequate knowledge about IWD may allow societal and subjective norms to guide their conclusions about them. Olkin (2002) identified the importance of pre-professionals having experience with IWD, as most professions will have contact or interactions with this population. Creating a course for university students to learn about different disabilities could be paramount in shifting negative bias. Another method to alleviate negative perceptions about IWD is meaningful, repeated interpersonal

and intergroup contact between people with and without disabilities (Lawson et al., 2017). Opportunities for these interactions would need to be established, focused, and supported by authorities to enhance these connections. Although these methods may resonate with most students, some will still have difficulty realizing their beliefs about IWD.

For example, suppose the constructs of contact theory are followed. In that case, meaningful contact is not established via “drop-in” opportunities, again leading to the conclusion that connection leads to shifts in beliefs, which comes from overcoming initial fears and doubts. Similarly, if students are subconsciously biased against IWD from past influences or a lack of experience, increasing opportunities for individuals to meet and work together, underestimating IWD could begin being alleviated and allowing for students to develop various levels of constructing disability.

Approach to Planning and Implementation

The course “Exercise Prescription for Individuals with Disabilities” is taught in a way that may differ from other college programs and courses. The instructor initially focuses on the social model of disability before the clinic starts to thwart premature bias and assumptions in students taking the class. When the SL experience begins, the course begins to evolve around some of the constructs of the medical model of disability.

Creating activity plans for IWD requires in-depth thought about modifying activities so the client can complete them. Very little research has been conducted on planning and implementation in APA. It shows how increasing knowledge and application helps pre-professionals develop the skills to gain perceived behavioral control in working with IWD. By ensuring students are provided with unbiased tools essential for

working with IWD, they may begin taking personal agency to improve their planning and successfully impact their clients. Additionally, pre-professionals must be taught from various points of view, including the social and medical models of disability, to ensure they receive accurate and comprehensive information.

Typical exercise planning for adults relies on fitness training standards developed by the American College of Sports Medicine (ACSM) or a similar entity. Very little information is provided on modifying activities for IWD unless a Certified Inclusive Fitness Trainer (CIFT) certification is earned. Integrating components of the CIFT certification while pre-professionals are learning about the ACSM standards could significantly increase students' success sooner in their SL experience.

Likewise, activity or lesson planning for children and adolescents with disabilities heavily relies on identified developmental milestones for children without disabilities or meeting the state standards for general physical education classes. To navigate this issue, universities could require all exercise science students to take a motor development course to learn about developmental milestones and physical activity skill development for children. These strategies could allow students to develop plans more efficiently and confidently implement them.

Student Internal Change

Finding ways to progress students' internal change culminates the above strategies to help them develop self-confidence and look beyond their insecurities. All the participants displayed some form of internal change. Some were initially overwhelmed but eventually experienced success and built confidence in their ability. Others learned that while their entire focus on the clinic was improving their clients' physical activity

skills, they also benefitted from participating in the SL experience. Their realization of how placing unfair labels on IWD can be not only detrimental to opportunities offered to them but also result in placing unnecessary constraints on them, which results in a lack of equity. Asking pre-professionals to challenge themselves by stepping out of their comfort zone leads to developing personal agency and their desire for change.

Having students reflect on their feelings and beliefs about specific issues and pushing them out of their comfort zone can begin establishing this change. “We can choose courage or comfort, but we cannot have both” (Brene Brown, 2015, p.4). Recognizing that each student is different, some will be more willing to accept a challenge than others, which helps explain the variability in the progression of student internal change.

Hope is another component that may be crucial to consider when analyzing internal student change and willingness to accept challenges. Snyder (1995) identifies hope as a process of thinking about goals. He states that when people are thinking about goals, they perform an analysis on their personal agency to work toward goals and their perceived ability to accomplish those goals. This could be one missing component that has not been fully examined in pre-professionals during SL experiences, and it could shed more light on when, how, and why some students are successful and grow through an APA service-learning experience while others struggle to grow in their understanding of disability.

Strengths of the Research

This GT study included several strengths. It strengthened the *Reshaping Understanding* framework by using a new sample of SMRs and semi-structured

interviews to examine the confirmability of the original data. By implementing these sampling changes, previously identified limitations were resolved. Both data samples allowed for comparing the original framework with the new data, which helped form the cohesiveness of both studies. As a result, *Cultivating Understanding* was developed as an identifiable psychosocial process.

Semi-structured interviews allowed the researcher to identify that participant vulnerability is more evident when provided with opportunities to expand their experience. Realizing vulnerability can be a crucial component in students' understanding of disability, which leads to the possibility of implementing new methods of reflection in the course.

Limitations of the Research

This study had a couple of limitations. First, the interviewer was not highly experienced in conducting interviews. The collection of interviews during the first semester of data collection was short. It provided some information but did not compare it to the data collected during the second semester of semi-structured interviews. This could have resulted in skewing how the data was analyzed. However, the interviewer reported feeling more comfortable asking follow-up questions to get participants to expand on their experience. If the semi-structured interviews were conducted again, the same interviewer could be used due to the familiarity with conducting these interviews. Second, the interview questions may have had too much direction on how the interview proceeded. While the semi-structured interviews were conducted to learn about the participant's experience, the questions may have been too specific and biased toward gaining information to support or refute the *Reshaping Understanding* study. By

replicating the semi-structured interviews in another study, asking questions to prompt participants to tell the story of their experience, and only asking questions for clarification, participant responses may have opened the door for identifying more threads. Finally, it would be remiss not to include the researcher's potential bias. While the researcher received feedback from two committee members about the coding process, it was evident to the researcher through constant comparative analysis that initial codes did not always support how data was interpreted. By adding another researcher to the study, the coding and constant comparative analysis verification could have resulted in stronger confirmability of the data.

Recommendations for Future Research

The previous section identified changes to methodology to alleviate the limitations identified in this study. Other research possibilities exist to continue developing and refining the psychosocial process, *Cultivating Understanding*. In the study, one question that the researcher identified was whether the framework would be altered if data were analyzed based on participants working with younger vs. older clients. The researcher detected many SMRs that were focused on moments in the pool. The analyzed data did not identify participants' confidence or experience level in working with IWD. Conducting a mixed methods study to compare different levels of experience, confidence, and hope within the framework of this study could show how rapidly some participants progress in their understanding while others do not. Finally, conducting a mixed methods study using repeated Physical Educators Attitudes Toward Teaching Individuals with Disabilities III (PEATID III) questionnaires (*See Appendix E*) with

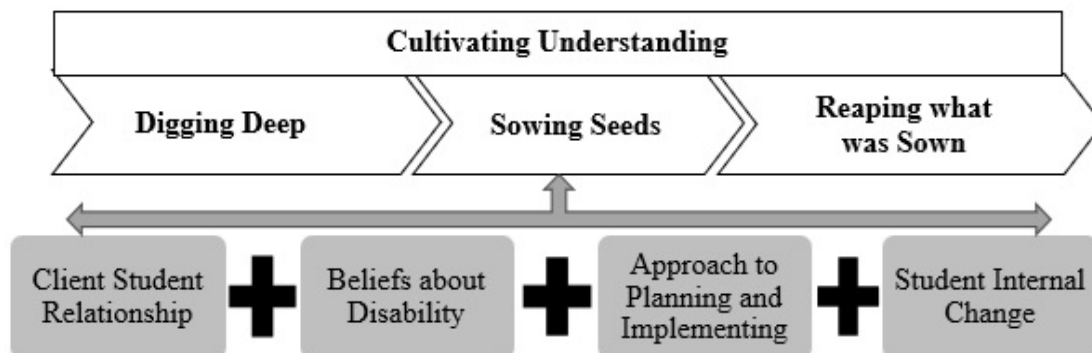
SMRs or semi-structured interviews could shed more light on how understanding disability evolves.

Conclusion

Pre-professionals attitudes and beliefs about IWD have been researched in various ways. Most of the research has been quantitatively conducted, focusing on different behavioral theories. While the research shows changes in attitudes and beliefs before and after a service-learning experience, there is no explanation for how these changes occur. The constructivist GT study, *Reshaping Understanding*, conducted by Oliver & Stanton-Nichols, 2022 identified how these changes evolve through critical stages and threads (focuses of change).

This study aimed to expand the theoretical framework for *Reshaping Understanding* established in the previous GT study. It examined pre-professional students' understanding of disability through an adapted physical activity SL experience. The study's results helped support and enrich the original framework and developed a psychosocial process, *Cultivating Understanding* (See Figure 4). Most newly analyzed data aligned well with the current framework, but other data posed new questions and insights.

Figure 4: Cultivating Understanding Process



Using two different data collection methods, it was possible to compare *Reshaping Understanding* with two separate samples. While the sample of SMRs revealed very similar results, there was a variation in how much focus was given to the approach to planning and implementation by the end of the SL experience. Additionally, the participant's internal change did not differ from the original framework. The semi-structured interviews allowed for the visibility of participants displaying vulnerability. By completing SMRs, showing vulnerability can be difficult due to the controlled nature of the reflection; however, participants were entirely able to describe their experience and were more open about its entirety. Both samples showed participants' realization of the benefit of allowing client autonomy. Clients were self-motivated to choose activities and complete them without being externally motivated. This information is beneficial when teaching pre-professionals about the importance of client choice during the SL experience.

It is essential to be aware that the results of this study could vary in different settings, timeframes, and with different participants. This study was conducted in an urban university in Indiana, which could have played a role in the data collection. The course "Exercise Prescription for Individuals with Disabilities," taught at the university where the study occurred, was developed and taught by the same professor for over 25 years. The content and methods taught and used in this course could vary from other universities where similar experiences are designed. For many reasons, the SL experience at other universities could be designed differently, and the student population could have different dispositions toward IWD. As a result, it is not easy to ascertain whether the *Cultivating Understanding* process would be transferrable across pre-

professional APA service-learning experiences. However, it can be viewed as a solid foundation.

Appendices

Appendix A- IRB Approval and Informed Consent

7/7/23, 2:07 PM

APPROVAL LETTER

To: Stanton-Nichols, Katie
Protocol #: 17561

Protocol Title: How students develop constructs of disability: A continued examination utilizing constructivist ground theory approach

Type of Submission: Amendment

Level of Review: Expedited

Approval Date: Friday, July 7th 2023

Expiration Date: no date provided

**If Expiration Date = "No date provided," this research does not require annual renewal; thus there is no expiration date.*

IRB-04 approved the above-referenced submission. Conduct of this study is subject to the IU HRPP Policies, as applicable.

Additional Notes:

Amendment A001

This research is approved under the following expedited categories:

- Category 6
- Category 7

Documents approved with this submission:

Attachments

Informed Consent Statement	Dissertation Informed Consent form.docx
Data Collection Instrument	Semi-structured interview guide.docx
Data Collection Instrument Assignment.docx	Small Moment Reflection Data Collection

You should retain a copy of this letter and all associated approved study documents in your research records.

If you have any questions or require further information, please contact the HRPP via email at irb@iu.edu.

How students develop constructs of disability: A continued examination utilizing
constructivist ground theory approach

IRB Protocol #17561

You are being asked to participate in a research study. Scientists do research to answer important questions that might help change or improve the way we do things in the future. This consent form will give you information about the study to help you decide whether you want to participate. Please read this form, and ask any questions you have, before agreeing to be in the study.

All research is voluntary. You can choose not to take part in this study. If you decide to participate, you can change your mind later and leave the study at any time. You will not be penalized or lose any benefits if you decide not to participate or choose to leave the study later.

The purpose of this study is to further the understanding of how student's conceptualization of disability changes as well as examining possible psychosocial changes in students through actively engaging in an adapted physical activity service-learning experience. We are asking you if you want to be in this study because you are enrolled in the course entitled "Exercise Prescription for Individuals with Disabilities", and the clinics you will be participating in are related to the study. The study is being conducted by Amy Oliver, Health and Rehabilitation Sciences PhD. candidate. This study is not funded, and you will not be paid for participating in the study.

If you agree to be in the study, you will do the following things:

- Complete all Small Moment Reflection assignments related to your clinic experience. These reflections consist of identifying one moment during clinic that was meaningful to you, describe the moment, and reflect on why that moment was significant.
- Participate in four bi-weekly audio recorded interviews during your clinic experience lasting no more than 10 minutes each. These interviews will be conducted via Zoom.
- In total, your participation will last no more than 40 minutes in 10-minute segments during your service-learning experience outside of your assigned coursework.

Before agreeing to participate, please consider the risks and potential benefits of taking part in this study. It is believed that all risks to participation will be minimal; however, please read the statements below to explain how potential risks will be minimized.

- You may be uncomfortable writing Small Moment Reflection (SMR) assignments with complete honesty for fear of grading consequences; however, the researcher will not review or grade any the submissions of participants in the study. Review will take place after the service-learning experience is concluded.
- You may be uncomfortable while answering the questions during the verbal interviews. While completing the interviews, you can choose to skip any questions that make you uncomfortable or that you do not want to answer.
- There is a risk someone outside the study team could get access to your research information from this study. More information about how we will protect your information to reduce this risk is below.
- We don't think you will have any personal benefits from taking part in this study, but we hope to learn things that will help researchers in the future.

We will protect your information and make every effort to keep your personal information confidential, but we cannot guarantee absolute confidentiality. No information which could identify you will be shared in publications about this study. During interviews your name will not be recorded, and you will be identified by participant ID number. All Small Moment Reflections will be de-identified with your name prior to review. At the completion of the study, all audio recordings will be destroyed to maintain participant privacy.

Your personal information may be shared outside the research study if required by law. We also may need to share your research records with other groups for quality assurance or data analysis. These groups include the Indiana University Institutional Review Board or its designees, and state or federal agencies who may need to access the research records (as allowed by law).

Information collected in this study may be used for other research studies or shared with other researchers for future research. If this happens, information that could identify you, such as your name and other identifiers, will be removed before any information or specimens are shared. Since identifying information will be removed, we will not ask for your additional consent.

If you have questions about the study or encounter a problem with the research, contact the researcher, Amy Oliver at amyoliv@iu.edu.

For questions about your rights as a research participant, to discuss problems, complaints, or concerns about a research study, or to obtain information or to offer input, please contact the IU Human Research Protection Program office at 800-696-2949 or at irb@iu.edu.

If you decide to participate in this study, you can change your mind and decide to leave the study at any time in the future. If you decide to withdraw, please contact Amy Oliver, at amyoliv@iu.edu.

PARTICIPANT'S CONSENT

In consideration of all of the above, I agree to participate in this research study. I will be given a copy of this informed consent document to keep for my records.

Participant's Printed Name: _____

Participant's Signature: _____ **Date:** _____

Printed Name of Person Obtaining Consent: _____

Signature of Person Obtaining Consent: _____ **Date:** _____

Appendix B- Interview Guide

IRB: #17561 Furthering the data of psychosocial changes in undergraduate students participating in APA service-learning experiences: A constructivist GT study.

INTERVIEW # 1- 2 weeks prior to service-learning experience (*essential interview guide*)

Interviewer Disclaimer to Participant: “Thank you for participating in this interview. I want to let you know that this session is being recorded and transcribed in audio format only. You will only be referred to by your participant numerical code. Please refrain from identifying yourself or your client by name to ensure the highest levels of confidentiality and anonymity for the researcher. If at any time you feel uncomfortable with a question being asked, you can opt to skip the question. Moreover, you can drop out of the study without repercussions. Are you ready, and would you like to proceed with the interview?”

1. What service-learning experience are you participating in this semester?
2. How do you feel about working with a client with a disability?
3. What concerns do you have prior to beginning your service-learning experience?
4. What expectations do you have for your overall service-learning experience?

Interview # 2- After week two, completion of service-learning experience (*essential interview guide*)

Interviewer Disclaimer to Participant: “Thank you for participating in this interview. I want to let you know that this session is being recorded and transcribed in audio format only. You will only be referred to by your participant numerical code. Please refrain from identifying yourself or your client by name to ensure the highest levels of confidentiality and anonymity for the researcher. If at any time you feel uncomfortable with a question

being asked, you can opt to skip the question. Moreover, you can drop out of the study without repercussions. Are you ready, and would you like to proceed with the interview?”

1. How would you describe your experience with your clinic so far?
2. What were your initial thoughts about your client after your first meeting?
3. Tell me about your experience with your client so far.
4. Tell me about what you are experiencing with your preparation for the clinic so far.

Interview # 3- After week four, completion of service-learning experience (essential interview guide)

Interviewer Disclaimer to Participant: “Thank you for participating in this interview. I want to let you know that this session is being recorded and transcribed in audio format only. You will only be referred to by your participant numerical code. Please refrain from identifying yourself or your client by name to ensure the highest levels of confidentiality and anonymity for the researcher. If at any time you feel uncomfortable with a question being asked, you can opt to skip the question. Moreover, you can drop out of the study without repercussions. Are you ready, and would you like to proceed with the interview?”

1. How has your experience with the clinic changed since the first two weeks?
2. How is your experience going with your client?
3. How have your thoughts about your client changed after four weeks of working with them?
4. What are some experiences you have had during clinic that have affected you?

Interview # 4- After week six, completion of service-learning experience (essential interview guide)

Interviewer Disclaimer to Participant: “Thank you for participating in this interview. I want to let you know that this session is being recorded and transcribed in audio format only. You will only be referred to by your participant numerical code. Please refrain from identifying yourself or your client by name to ensure the highest levels of confidentiality and anonymity for the researcher. If at any time you feel uncomfortable with a question being asked, you can opt to skip the question. Moreover, you can drop out of the study without repercussions. Are you ready, and would you like to proceed with the interview?”

1. Describe your overall clinic experience.
2. How has your planning and implementation changed throughout the clinic?
3. How have you changed individually throughout the clinic experience?
4. Can you talk about what you have learned throughout this experience?
5. If you were to participate in this service-learning experience again, what concerns or expectations would you still have?

Appendix C- Focused Coding

Small Moment Reflection- Focused Codes	Stages of Change
Seeing client's engagement and enjoyment Doubting/ Underestimating clients ability Needing to build trust Getting to know each other Struggling with client engagement and understanding Feeling overwhelmed/ nervous/ discouraged	Digging Deep
Client's willingness to try new skill Seeing client's personality Improving communication Needing to improve planning and instruction Needing to use modifications Feeling proud over small success	
Seeing small success Realizing student/ client similarities Recognizing need to challenge client Seeing improvement in planning, implementation, and modification Feeling confident and successful Feeling proud of client	Sowing Seeds
Seeing better engagement/ enjoyment in activities Recognizing bond Recognizing similarities between student/ client Changing methods of instruction for engagement/ challenge Utilizing different types of modification Feeling self-pride and success with client	
Seeing better engagement/ enjoyment in activities Seeing client success Seeing client independence Wanting to learn more about the client Feeling successful with planning and implementation Using multiple instruction methods/ modifications easily Feeling proud of client's success and confidence Recognizing the client's support system Realizing the mutual benefit of clinic	Reaping what was Sown
Seeing better engagement/ enjoyment in activities Feeling surprised by client's huge improvement Appreciating client and family Feeling happy a connection was built Being happy to learn more about client Feeling successful with teaching Feeling mutual impact of clinic Realizing client support system	

Stages of Change	Semi-Structured Interview-Focused Codes	Interview
	Varying degrees of student exposure and contact with IWD Feeling concerned about successful planning and implementation Feeling nervous/ overwhelmed about clinic Feeling hopeful for good experience	1 (Pre-clinic)
Digging Deep	Underestimating client ability Feeling surprised by client willingness Building rapport/ making connections Understanding client likes and dislikes Identifying ways to communicate successfully Struggling with modifications Feeling overwhelmed by the time it takes to plan effectively Feeling unprepared and worried Recognizing measuring success is different for everyone	2 (Weeks 1 & 2)
Gaining Perspective	Experiencing decreased nervousness Realizing IWD are the same as everyone else Feeling like society makes IWD seem different Feeling a natural connection and rapport with client Experiencing mutual understanding Understanding client motivation Recognizing the importance of planning for the individual - meeting client where they are Feeling more confident with planning and making modifications Recognizing mutual benefit from clinic experience Recognizing increase in confidence throughout clinic	3 (Weeks 3 & 4)
Sowing Seeds	Recognizing generalized information about IWD is not always accurate Recognizing misconceptions about IWD abilities Feeling like society places inaccurate constraints on IWD through "labeling" Recognizing evolution of building rapport to friendship Recognizing implementation needed to work for both "give and take" rather than "by the book" Allowing client to have some autonomy over activity selection and how the activities will be conducted Learning a lot about self and how to be more empathetic and accepting of others Learning to be proud of small successes	4 (Weeks 5 & 6)

Appendix D- Theoretical Data Analysis Tables

<i>Small Moment Reflection - Digging Deep</i>		
Focused Codes	<i>n</i> = 20	Supporting Quote⁴
Observing client's personality	7	"This showed me that X is growing more comfortable with me and beginning to tell me funny things that happen in his life. To me this is a sign of friendship and I look forward to hearing more stories like this" (P2).
Learning to communicate	7	"This was the moment where I learned how to instruct X effectively. By using one or two worded cues, he would follow my instructions very quickly. In the obstacle course, I would say things like 'Step here' or 'Look.' This will ultimately allow me to clean up his form in activities because I know how to communicate with him more effectively" (P13).
Seeing client's engagement and enjoyment	17	"XX, his mom, and I went upstairs to the gym after the pool. I was holding XX's hand, and I happened to lead with my left foot, which XX struggles with. XX's mom immediately noticed that XX was trying to copy me. Since XX saw me start with my left foot, he did the same. ... XX, who doesn't like the stairs, decided to challenge himself to imitate me. Without trying too much, we worked on something that is a goal for XX's mom to improve" (P20).
Needing to improve instruction for client understanding	7	"It was nice to see the progression from step by step to a smooth walking lunge. I was proud of his progression. This will help me in the future as I will be able to see when he is thinking through small steps to a big movement. I am excited to see some of this 'struggle' so I can get a better understanding of how to program for him" (P9).

⁴ P = Participant

= Participant Code

Small Moment Reflection- Sowing Seeds		
Focused Codes	n= 20	Supporting Quote⁴
Recognizing similarities between student/client personality	4	“We went to them and asked if we could play each other, and the other group said yes. So we were playing, and I saw her competitive side come out as soon as we got a point ahead. She was almost insisting on the ball, which reminded me of how I am when I am feeling super competitive. This gave me extra insight to see past her disability and realize she is like every other kid trying to compete in what she finds fun” (P17).
Experiencing client engagement and enjoyment	16	“In the pool with volleyball, X set a goal to get 20 hits without letting the ball touch the water. He set a goal in the gym to get 500 points in our bucket ball game. He struggles and sometimes gets upset throughout both, but he never gives up; he just gets more into it as he knows time is running out. This is why it’s meaningful: He is focused on his goal and wants to succeed, so it’s good to see him not giving up and still working hard” (P4).
Enjoying client improvement and success	14	“Not only is she becoming stronger, but she has made the mind-muscle connection of how to move effectively in water, which is a great safety skill. I have loved working with X and seeing her improvement. X’s level of excitement was off the charts” (P2).
Realizing importance of instructional and modification methods	7	“He can be very stubborn with his habits, and I haven’t been able to find a way to change them until now. Plus, I’ve finally mastered the technique of keeping X’s attention and having him remember the process. Knowing this, I’ll be more successful with future activities as I now better understand maintaining X’s attention and teaching him” (P13).
Needing to increase difficulty of activities for client and to improve engagement	4	“Something X should work on next time at the clinic is to have her do activities that may be out of her comfort zone to work on her confidence and be more open to activities that might challenge her” (P7).

⁴ P = Participant

= Participant Code

<i>Small Moment Reflection- Reaping what was Sown</i> ⁴		
Focused Codes	n= 20	Supporting Quote
Learning more about client outside of clinic	3	“One moment that stuck out to me this week was when AB came by and asked X about his schooling. I had never really asked X about this before and I should have earlier. ... He then talked about some of his interests that he has for the future. ... I liked this conversation because we had never really talked about his interests in school before. It was cool to hear about his learning process and the interests he wants to pursue academically” (P11).
Realizing mutual appreciation between student, client, and family	6	“Flabbergasted is the only word to describe how I felt during and after our final session together. X exceeded all expectations for our final morning together. That kid has opened my eyes to so much and taught me how to communicate in new ways. I am forever thankful for the MAC, X, and his family” (P10).
Recognizing client success and level of independence	11	“Normally, X has to show me each step he remembers, and then I assist him with the step he’s stuck on if needed. Instead, X showed confidence from the beginning and gave the correct form and technique for each repetition of each set. I felt so proud of X since I’ve never seen his confidence so high before, and the fact that he never lost confidence after each set and repetition made me recognize how far he’s come since the first session” (P14).
Recognizing strength of client’s support system	6	“Something meaningful that happened is that she was rewarded client of the week, and her mood instantly changed, which was great to see, and she immediately wanted to show her mom. I could tell that X felt very proud of herself, which boosted her confidence. She was willing to do more challenging activities, and I think her getting client of the week contributed to that. It was amazing to see her proud of herself and the support system that she has. ... Something else that happened during the ceremony was after she got her award, X’s little sister hugged her, and to me, it shows that she has a great support system and that her family is so proud of her” (P7).

⁴ P = Participant

= Participant Code

<i>Semi-structured Interviews- Digging Deep⁵</i>		
Focused Codes	n= 11	Supporting Quote
Identifying ways to communicate	6	“He's a very literal person. So, he takes things very literally. When you explain something to him, he understands it exactly how you say it to him. Most people don't always speak in literal terms. So I'm definitely modifying- starting to try to modify the way I give instructions because I know, if I say this- this is what he thinks I mean. You know, so, and I really came to a realization that like, he doesn't have an issue with cognition or understanding. He understands what I'm saying perfectly and exactly how I'm saying it. It's just we're not used to people taking us literally. We paraphrase things, you know, and stuff like that. So it's really realizing that I need to adjust how I'm giving instructions” (PH).
Understanding client likes/ dislikes	9	“I understand what my client likes and dislikes, and I'm really challenging myself to put more games that are more interactive because that's how I can capture my client's attention. So I'm having to get creative with it; I'm having to take basic movements and exercises and make them more fun. My client and his age is a child, so I need to make sure to capture his attention, make it fun, and make it so that my client wants to do it” (PD).
Being surprised by client willingness	6	“I think I was surprised with how open she was going to be with trying new things. Because just like the packet and like information we receive about our client before we get to meet them in person, just made it seem like- like she would not be willing to do some specific activities to full extent of how they were intended to be done if she didn't want to do, but I put them in the plan anyway... I thought I was going to face like a lot more struggle to get her to want to do them” (PA).
Struggling with modifications	7	“The most difficult thing I've experienced with preparation is planning how to make modifications for the environment, individual, and task (activity), and how to simplify them or make them more complex. I think I find it easier to modify exercises because that's what I do in my job outside of school. So trying to identify ways to progress or simplify exercises is more difficult for me” (PG).
Feeling unprepared and worried	4	“The first day was an eye opener, but necessary, it was absolutely needed, to be shocked into just how much work it's going actually to take. My first thought was, what in the world am I getting myself into” (PI)?
Measuring success is different for everyone	4	“You have to be innovative and think about it from how you would normally do it. With your client, you have to consider the fact that what you might normally do to measure client success may not be the same way you would measure it with someone else” (PF).

⁵ P = Participant

Letter = Participant Code

<i>Semi-structured Interviews- Sowing Seeds⁵</i>		
Focused Codes	n= 11	Supporting Quote
Finding mutual understanding	5	"I've gotten him to do something that he was initially scared of and seeing him modify himself. Seeing his strength and watching him want to push himself made me very proud. I did feel connected to him because he was understanding what I was wanting and I was understanding what he was wanting. And that was a very special moment for me" (PD).
Understanding client motivation	3	"When I try to make my plans, I try to always have at least one fun activity that I can sort of motivate her with, especially if we're in the gym. And if I have a lot of crawling or rolling over activities that she doesn't like to do, she really likes other things, like when we do arts and crafts. So I find that putting a fun special activity at the end and telling her about this while she's trying to do the less preferred activities keeps her motivated to keep going through it, and she's okay. The faster we get it done, the faster we get to the activity at the end" (PJ).
Realizing PWD are NOT different	3	"I came in with almost like a biased view. I didn't think it was biased at the time. My thought process was, you know, if somebody was disabled or whatever that disability may be, there are obviously some things that they can and cannot do. That's just how it was. But now, with working and seeing other kids with various disabilities or various conditions, seeing them do the same activities as I was when I was their age is awesome to see. It was eye-opening. It kind of made me need to take a step back and re-evaluate my mindset, my thinking of, um, what it means to be disabled" (PI).
Feeling like society makes IWD seem different	2	"It made me realize, especially working up close with her, that they are the same as everyone else. And I think there's no actual difference compared to what society makes them be" (PB).
Needing to plan for the client individually	5	"The first couple of weeks, I kind of just did the tasks like how I had them in the order that I planned them, but I've started to like change the order of the tasks just because I've noticed that she's a lot more productive when we do change the order. ... Um, she responds a lot better when we change up what we're doing. And also, I've just started to get in more of a routine with her like at the beginning and end of clinic, which she has, um, responded well to in progressing through the beginning and the end of clinic" (PG).
Needing to meet client where they are	9	"I feel a lot more comfortable working with my client daily based on his mood. And I meet him where he is instead of trying to keep going with the plan I have created" (PD).
Feeling more confident in planning and making modifications	7	"I definitely challenge her more and take a step back when we need to. During the first couple of weeks, I was cautious, and I don't think I tested her as much just because I wasn't aware of what she could do or handle. I think I've definitely identified what I want her to focus on, and I think I'm understanding planning and implementing the modifications and how to measure her as well" (PB).
Recognizing mutual benefit from clinic	4	" I think the first two weeks, I was pretty nervous. And I really wasn't confident in myself, and I felt like maybe what I was doing wasn't really like making a change for her or affecting her in any way. But, um, I think now I realize that, like, I mean, like, she likes coming to the clinic. It's cool to see that what I'm doing like has an effect on her. But also she's helping me grow as a professional and also like just a person" (PC).
Realizing experience is about more than the grade	3	"A lot of times I think in school, and especially like this class, I'm worried about getting the grade. Um, but my client last week received the client of the week for one of the previous weeks, and just seeing how excited she was about that, she was like telling me that it wouldn't have been possible without me, and I just realized that it's much more about her experience. And my grade in this class, um, and like the clinic experience, is not for me. Obviously, I'm benefiting from learning how to program for IWD, but if not, it's a program for her. Everything I do should be structured to her and not what I want to do necessarily or what I think would work best, but it's what she would respond to the best" (PG).

⁵ P = Participant

Letter = Participant Code

<i>Semi-structured Interviews- Reaping what was Sown⁵</i>		
Focused Codes	n= 11	Supporting Quote
Recognizing misconceptions about PWD	6	“He showed me a higher level of performance than I was told when we first had the interviews with the parents. I was told that he couldn't swim. And that's as far as our conversation of his pool abilities went. So I feel like if I had known that he could do more in the pool, I could have planned my activities to be more up to his level- up to his true level of ability” (PI).
Realizing generalized information about PWD is not always accurate	5	“I think my views and I think reflecting on my own biases about how people in society think about people with "disabilities" or whatever disorder they want to say. It really like opened my eyes and help me reflect on that really highlighted the concept of like how handicapping is done by society on an individual. And it really, like, I- I saw that firsthand in my own biases. I thought, Oh, I think this person has a problem with X, Y, or Z. But really, it- it could be us that have a problem, you know, communicating, or I have a problem, you know, I'm not figuring out what modifications to make, you know” (PH).
Needing to give and take with client	5	“My client and I got along well. We went back and forth, like many give-and-take on some things. If he wanted to try a different machine, I'd be like, okay, we have to do this and this before we can try these new machines. So we were still getting my stuff done, but he also got to explore more of the gym space. Um, but yeah. It was really good” (PC).
Allowing autonomy	5	“I was able to modify my lesson plans so that towards the end, I applied what's called a voice and choice approach. So, I would give my client the choice between two sets of 15 versus maybe three sets of 10. And then I would also give them the choice, do you want to listen to this song or do you listen to this other song that you like? So I think that's how it really changed, um, over the course of the clinic. The experience was more so just being flexible and empowering my client to be independent by choosing how he wants to move through the lesson plan” (PF).
Realizing ‘labeling’ places unnecessary constraints on PWD	5	“ I definitely learned that, um, IWD are really no different than any other person. I think obviously they have like a label placed on them, or you know, how society believes- what they should look like and that's not always what they are. I also learned that not everything is going to work for some people or what works for me” (PB).
Learning a lot about self through experience	7	“I guess, if anything, they've changed me for better. I get the tenacity for perseverance, for sure. I could see it with my client whenever I gave her an activity; she always gave it a shot and easily asked questions. Even if it was hard just asking for help. I think that's really strong in a way. I know some people don't like to ask for help. I can relate to that. I don't like asking for help, but I think that asking for help actually comes from a place of strength, not weakness. I learned that” (PJ)

⁵ P = Participant

#/ Letter= Participant Code

Appendix E- Psychosocial Processes Tables

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		Cultivating Understanding- Small Moment Reflection Stages of Change⁶		
		<i>Digging Deep</i>	<i>Sowing Seeds</i>	<i>Reaping what was Sown</i>
Threads	Client-Student Relationship	Needing to develop trust and rapport Building trust over time with patience Working on communication Observing client's personality	Feeling a connection with and acceptance by client Feeling increased ease in interaction and communicating with client Recognizing similarities between student/ client personality	<u>Recognizing a shared understanding of needs and wants</u> Replacing unease with client to friendship Learning more about client outside of clinic Realizing mutual appreciation between student, client, and family
	Beliefs about Disability	Underestimating/ surprised by client ability Needing to look past disability label Seeing client's engagement and enjoyment	Identifying and seeing ability instead of limitations Beginning to question social construct of disability <u>Questioning how client is treated outside of clinic</u> <u>Realizing the importance of clinic experience for client and student to learn and grow</u> Experiencing client engagement and enjoyment Enjoying client improvement and success	Seeing client as an individual <u>Expressing perspective of the need for societal change for individuals with disabilities through clinic experience</u> Recognizing strength of client's support system Recognizing client success and level of independence
	Approach to Planning and Implementing	<i>Recognizing level of detail in planning</i> Needing to improve instruction for client understanding <i>Needing to find ways to improve client participation and focus</i> Needing to let go of expected outcome and recognizing need for modification	Recognizing connection between method and student engagement <u>Recognizing the importance of client understanding and completing activity correctly</u> Identifying how their client engages in activities best Realizing importance of instructional and modification methods Needing to increase difficulty of activities for client and to improve engagement	Becoming confident in implementing effectively due to successfully applying concepts learned in class Realizing the importance of being prepared and knowledgeable about implementing possible changes to instruction
	Student Internal Change	Feeling nervous and discouraged Wanting to feel accepted by client Having small success builds confidence	<u>Receiving constructive feedback and praise from families, client, and staff increases confidence</u> Feeling more successful each week Gaining confidence in ability to "think on feet" and finding success Feeling sense of pride in seeing client progress	Building confidence through new experiences Realizing the personal impact of experience Feeling reciprocity in impact of experience between client and student <u>Being emotionally impacted by the experience</u> Needing to be open to new challenges

⁶ **Added** *Edited* Deleted

Cultivating Understanding- Semi-structured Interview- Stages of Change⁷				
Threads		<i>Digging Deep</i>	<i>Sowing Seeds</i>	<i>Reaping What was Sown</i>
	Client-Student Relationship	Needing to develop trust Building trust over time with patience Identifying ways to communicate Understanding client likes/ dislikes	Feeling increased ease in interaction and communicating with client <i>Recognizing client trust and rapport</i> Finding mutual understanding Understanding client motivation	<u>Recognizing a shared understanding of needs and want</u> Replacing unease with client towards friendship
	Beliefs about Disability	Underestimating/ surprised by client ability Needing to look past disability label Being surprised by client willingness	Identifying and seeing ability instead of limitations Beginning to question social construct of disability <i>Questioning how client is treated outside of clinic</i> Realizing the importance of clinic experience for client and student to learn and grow Realizing IWD are NOT different Feeling like society makes IWD seem different	Seeing client as an individual <u>Expressing perspective of the need for societal change for individuals with disabilities through clinic experience</u> Recognizing misconceptions about IWD Realizing generalized information about IWD is not always accurate
	Approach to Planning and Implementing	Feeling overwhelmed by detail and planning <i>Feeling defeated by clients focus</i> Needing to let go of expected outcome and recognizing need for modifications Struggling with modifications	Recognizing connection between method and student engagement Recognizing the importance of client understanding and completing activity correctly Identifying how clients engage in activities best Needing to plan for the client individually Needing to meet client where they are Feeling more confident in planning and making modifications	Becoming confident in implementing effectively due to successfully applying concepts learned in class <i>Realizing the importance of being prepared and knowledgeable to adapt</i> Needing to give and take with client Allowing autonomy
	Student Internal Change	Uncertainty/ Anxiety <u>Wanting to feel accepted by client</u> Having small success builds confidence Feeling unprepared and worried Measuring success is different for everyone	<u>Receiving constructive feedback and praise from families, client, and staff increases confidence</u> Feeling more successful each week Feeling sense of pride in seeing client progress <u>Gaining confidence in ability to "think on feet" and finding success</u> Recognizing mutual benefit from clinic Realizing experience is about more than the grade	Building confidence through new experiences Realizing the personal impact of experience Feeling reciprocity in impact of experience between client and student Being emotionally impacted by experience Realizing "labeling" places unnecessary constraints on IWD Learning a lot about self through experience

⁷ Added

Edited

Deleted

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 the purpose of this study, assume that a child with mild/ moderate disabilities is one who is included into your regularly scheduled physical education class without a teacher aid. Mild/ moderate disabilities may include the following:

Emotional/Behavioral Disorder: The term refers to a condition characterized by one or more of the following behavior clusters: severely deviant disruptive, aggressive or impulsive behaviors, withdrawn or anxious, general pervasive unhappiness, depressed or wide mood swings, delinquency, hyperactivity, social maladjustment, hypersensitivity. It is usually serviced with a behavior management program.

Specific Learning Disability: "A specific learning disability *is* a disorder within the individual which affects learning relative to that individual's potential. The disability interferes with the acquisition, organization, and/or expression of information such as in listening, reading, writing, thinking, and movement. In physical education this student could have difficulty with spacial awareness."

Mild-Moderate Mentally Impaired: 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.

DO NOT SKIP ANY QUESTIONS.

CIRCLE ONLY ONE RESPONSE.

ALL RESPONSES WILL BE KEPT CONFIDENTIAL.

Please circle the response which best corresponds to your agreement with each statement. Do NOT skip any.

KEY

SD=STRONGLY
DISAGREE D=DISAGREE
U=UNDECIDED
A=AGREE
SA=STRONGLY AGREE

1. One advantage of teaching students with mild/ moderate mental disabilities included into my regular physical education classes with nondisabled students is that all students will learn to work together toward achieving goals.

SD D U A SA

2. Teaching students labeled with mild/ moderate mental disabilities in my regular physical education classes will motivate nondisabled students to learn to perform motor skills.

SD D U A SA

3. Students with mild/ moderate mental disabilities will learn more rapidly if they are taught in my regular physical education class with nondisabled students.

SD D U A SA

4. Students with mild/ moderate mental disabilities will develop a more favorable self-concept as a result of learning motor skills in my regular physical education class with nondisabled peers.

SD D U A SA

5. Students with mild/ moderate mental disabilities will not be accepted by their nondisabled peers in my regular physical education classes.

SD D U A SA

6. Students with mild/ moderate mental disabilities in my regular physical education classes with nondisabled students will disrupt the harmony of the class.

SD D U A SA

7. Having to teach students with mild/ moderate mental disabilities in regular physical education classes with nondisabled students places an unfair burden on teachers.

SD D U A SA

8. As a physical education teacher, I do not have sufficient training necessary to teach students with mild/ moderate mental disabilities with nondisabled students in my regular physical education classes.

SD D U A SA

9. Teaching student with mild/ moderate mental disabilities in my regular physical education classes with nondisabled students means more work for me.

SD D U A SA

10. Students with mild/ moderate mental disabilities should not be taught in my regular physical education classes with nondisabled students because they will require too much of my time.

SD D U A SA

11. As a physical education teacher, I need more course work and training before I will feel comfortable teaching physical education classes that have students with mild/ moderate mental disabilities included with nondisabled students.

SD D U A SA

12. Students with mild/ moderate mental disabilities should be taught with nondisabled students in my regular physical education classes whenever possible.

SD D U A SA

A FEW FINAL QUESTIONS ABOUT YOURSELF

13. Identify your gender.

Female

Male

14. What is your age? _____

15. How many years have you taught physical education? _____

16. What grade levels are you presently teaching? _____

17. Do you have a Developmental/Adapted Physical education teaching license?

Yes

No

Have you taken any Developmental/Adapted Physical Education courses?

18. Undergraduate?	Yes	No	If so, how many courses?
19. Graduate?	Yes	No	If so, how many courses?

Have you taken any Special Education courses?

20. Undergraduate?	Yes	No	If so, how many courses?
21. Graduate?	Yes	No	If so, how many courses?

22. Have you had any experience teaching individuals with disabilities?

Yes

No

23. How many years have you taught individuals with disabilities? _____

24. Rate the quality of your teaching experience for individuals with disabilities.

No experience

Not good

Satisfactory

Very good

25. How competent do you feel teaching students with disabilities?

Not at all

Somewhat

Very

26. Do you teach a 2nd or 3rd grade class that has a child with mild/ moderate disabilities?

Yes

No

A FEW QUESTIONS ABOUT YOUR SCHOOL

27. How many schools do you teach at?

One

Two

Three

Four

More than four

28. What is the average class size of the inclusionary classes that you teach (including children with disabilities)? _____

29. What percentage of children at your school receives free or reduced lunches?

30. Is your school a Title I School?

Yes

No

THANK YOU FOR YOUR HELP

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Curriculum Vitae

Amy Renee Oliver

Education

- Doctor of Philosophy in Health and Rehabilitation Sciences (Focus- Adapted Physical Activity), earned at Indiana University Indianapolis, Indianapolis, IN (2019-2024)
- Master of Science Physical Education (Focus- Adapted Physical Education), earned at Ball State University, Muncie, IN (2002-2004)
- Bachelor of Arts in Health and Physical Education and Sport Management, earned at Bluffton University, Bluffton, OH (2002)

Honors

- Indiana University Division of Undergraduate Education- Epitome Award-nominee 2023.
- Midwest Shape America Adapted Physical Education 2017 Teacher of the Year
- Indiana Adapted Physical Education 2016 Teacher of the Year
- Indiana Adapted Physical Education Teacher of the Year Award Nominee, 2015
- Muncie Southside High School Teacher of the Year, 2014

Professional Memberships

- Society of Health and Physical Education America
- North American Federation of Adapted Physical Activity
- National Consortium for Physical Education for Individuals with Disabilities
- Indiana Society of Health and Physical Education

Professional Experience

- Indiana University Indianapolis
 - Visiting Lecturer Department of Kinesiology Fall 2022 – Present
 - Service Learning and Civic Engagement Mentor Fall 2024- Present
 - Community Engaged Associate Mentor Fall 2020- Fall 2024
 - Service-Learning Assistant Mentor Spring 2017- Fall 2020
 - Adapted Movement Programs, Clinic Coordinator Fall 2016 - Present
- Muncie Community Schools, Muncie IN August 2004- October 2016
 - Adapted Physical Education Teacher
 - Health and Physical Education Teacher

Conference/ Professional Presentations

- **Oliver, A.,** Curtis Keppel. (2023) Lecture Presentation. *Transition Services in Adapted Physical Education: A Collaborative Approach*. Indiana Society of Health and Physical Education Annual Conference, Indianapolis, IN.
- **Oliver, A.,** Stanton-Nichols, K. (2022) Student Proposal Presentation. *From Apprehension to Reshaping Understanding: Student learning and psychosocial change in adapted physical activity service-learning articulated through critical reflection: additional research proposal*. North American Federation for Adapted Physical Activity conference. Brock University, St. Catherines, Ontario.
- **Oliver, A.,** Stanton-Nichols, K. (2022). Emerging Scholar Presentation: *From Apprehension to Reshaping Understanding: Student learning and psychosocial change in adapted physical activity service-learning articulated through critical reflection*. The National Consortium for Physical Education for Individuals with Disabilities national conference. Virtual Conference.
- **Oliver, A.,** Van Antwerp, L. (2022) *Piloting a Collaboration Between Undergraduate Exercise Science Students and Occupational Therapy Doctoral Students in an Adapted Physical Activity Clinic for Children*. The National Consortium for Physical Education for Individuals with Disabilities national conference. Virtual Conference.

- Stanton- Nichols, K., **Oliver, A.R.** (2018). *Strategic Planning in Adapted Physical Activity Programming: Design Thinking Tools to Reorganize Community-Based Adapted Physical Activity Programs*. The National Consortium for Physical Education for Individuals with Disabilities national conference. Arlington, VA.
- **Oliver, A.R.** (2017). *Modify and Differentiate! Achieving Individualized Education Plan (IEP) Goals in a General Physical Education Classroom*. Indiana Society for Health and Physical Educators state conference, Indianapolis, IN.
- **Oliver, A.R.** (2016). *Benefits and Approaches to Teaching Adapted Aquatics in a School Environment*. Indiana Association for Health, Physical Education, Recreation, and Dance state conference, Indianapolis, IN.
- **Oliver, A.R.** (2016). *Becoming an Advocate for Creating an Adapted Physical Education Program at Your School*. Indiana Association for Health, Physical Education, Recreation, and Dance state conference, Indianapolis, IN.
- **Oliver, A.R.** & Clegg, B. (2015). *Creating and Modifying Physical Education Equipment for use with Special Populations*. Indiana Association for Health, Physical Education, Recreation, and Dance state conference, Indianapolis, IN.
- Dickerson, J., Karn, K., & **Oliver, A.R.** (2015). *Hands on Learning with Nutrition and Wellness*. Indiana Association for Health, Physical Education, Recreation, and Dance state conference, Indianapolis, IN.
- **Oliver, A.R.** & Havice, A. (2014). *Adapted Physical Education for All Abilities: Creating an Active Learning Environment for All Students*. Indiana Association for Health, Physical Education, Recreation, and Dance state conference, Indianapolis, IN.

Publications

- **Manuscripts in Progress**
 - **Oliver, A.,** Stanton-Nichols, K. (2024). Identifying How Students Understand Disability through an Adapted Physical Activity Service-Learning Experience: A Constructivist Grounded Theory Study. Manuscript submitted for publication.
- **Peer-Reviewed Publications**
 - **Oliver, A.,** Munk, N., Stanton-Nichols, K. (2021). Applying theory to overcome internal barriers for healthy behavior change in adults with intellectual disabilities. *Journal of Intellectual Disabilities*. <https://doi.org/10.1177/17446295211020304>

- Davis, R., **Oliver, A.** & Piletic, C. (2007). The paraeducator's roles and responsibilities in physical education. In L. J. Lieberman (Ed.), *Paraeducators in physical education* (pp. 15-23). Champaign, IL: Human Kinetics.
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- Piletic, C., Davis, R., & **Aschemeier, A.** (2005). Paraeducators in physical education. *Journal of Physical Education, Recreation, & Dance, Volume 76*, (Issue 5), pp. 47-55.

- **Other Publications**

- **Oliver, A.,** Katz, H. (2022). Key resources for supporting students with disabilities. The Advocate: National Consortium for Physical Education for Individuals with Disabilities. Accessible at: <https://www.ncpeid.org/assets/22winter/Resources%20.pdf>
- **Oliver, A.,** Sur, M. (2021). Recent NCPEID professional publications- we are proud of your work! The Advocate: National Consortium for Physical Education for Individuals with Disabilities. Accessible at: <https://www.ncpeid.org/assets/AdvocateWinter21/Professional%20publications.pdf>.
- **Oliver, A.,** Sur, M. (2020). Resources for practitioners and parents: Adapted physical education law refresher. The Advocate: National Consortium for Physical Education for Individuals with Disabilities. Accessible at: <https://www.ncpeid.org/assets/Advocatefall20/Resources%202020-2021%20NCPEID%20Advocate%20Article%20Template.pdf> .
- Piletic, C., Davis, R., & **Aschemeier, A.** (2005). The role of the paraeducator in physical education. *Indiana AHPERD Journal, Volume 34*, (Issue 1), pp. 16- 21.