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Influence of Service-Learning on Kinesiology Students' Attitudes Toward P–12 Students With Disabilities

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Employing a grounded theory approach, the purpose of this study was to qualitatively examine the influence of service-learning (SL) on undergraduate kinesiology students' attitudes toward and experiences working with P–12 students with disabilities. Fourteen (9 female, 5 male) kinesiology students enrolled in an adapted physical education class participated in one of three focus group interviews regarding their experiences of working with P–12 students with disabilities. All interview data were analyzed following procedures outlined by Strauss and Corbin (1998). The following five themes represent the participants' experiences and attitudes toward P–12 students with disabilities after their involvement in a SL project: (a) initial reactions, (b) selection of P–12 students, (c) preconceived attitudes, (d) the benefits of SL, and (e) positive experience. All 14 of the participants who volunteered to share their experiences indicated that the SL experience positively affected their attitudes toward individuals with disabilities.

Keywords: grounded theory, inclusion, stereotypes, adapted physical education

Service-learning (SL) is a pedagogical approach used widely in academic courses to connect discipline specific theory to practice while also giving back to the community (Richards, Wilson, & Eubank, 2012). SL is guided by three core principles: (a) the experience should relate directly to the academic course content, (b) students should contribute in a positive way to the community, and (c) students should reflect on their experience (Moorman & Arellano-Unruh, 2002). These core principles distinguish SL from more traditional approaches (e.g., volunteerism, practicum experiences). The benefits of SL have been well documented in the literature. Findings on student participation in SL projects report enhanced levels of self-efficacy, identity, and moral development (Eyler, Giles, Stenson, & Gray, 2001); deeper understanding of course content (Bringle & Hatcher, 1999) and civic responsibility (Eyler & Giles, 1999); positive influence on attitudes among students working with individuals with disabilities (Burns, Storey, & Certo, 1999); and

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greater interest in interacting with culturally different and diverse people (Simons & Cleary, 2006).

SL has been extensively incorporated in the sciences, humanities, arts, education, and engineering (Meaney, Griffin, & Bohler, 2009). In kinesiology, incorporation of SL has increased in recent years and has become popular in physical education teacher education programs as a method for preservice teachers to apply pedagogical methodologies, work with diverse populations, and develop a sense of civic responsibility (Meaney et al., 2009).

Richards and associates (2012) acknowledged that Adapted Physical Education/Activity (APE) is one course where kinesiology professors are increasingly using SL methodology. In addition, they argued that APE is an ideal course for providing kinesiology students (e.g., exercise science, physical education, athletic training) with SL opportunities in which they can work with individuals with disabilities. This is especially important as inclusion of individuals with disabilities into community and educational settings has been rapidly increasing. According to the National Center for Education Statistics (2012), in the fall of 2009, approximately 95% of 6–21 year old students with disabilities were served in schools with students without disabilities.

Researchers indicate that attitudes toward individuals with disabilities are barriers for full inclusion (Barg, Armstrong, Hetz, & Latimer, 2010; Morley, Bailey, Tan, & Cooke, 2005). As Kozub and Lienert (2003) indicated, “it is without question that many researchers believe that attitudes play an essential role in the successful inclusion of children with disabilities” (p. 326). Since the 1980s, researchers have relied heavily on various versions of Rizzo’s scale, originally titled Physical Educators’ Attitudes Toward Teaching the Handicapped (Rizzo, 1984). While this scale has undergone a series of modifications over the years, its general purpose is to examine attitudes toward teaching students with disabilities in the general physical education (GPE) setting. A significant amount of research has used this scale to study pre- and inservice physical educators’ attitudes (Block & Obrusnikova, 2007; Folsom-Meek, Nearing, Groteluschen, & Krampf, 1999; Hodge & Jansma, 1999; Kowalski & Rizzo, 1996; Kozub & Lienert, 2003; Rizzo, 1984; Rizzo & Kirkendall, 1995; Rizzo & Vispoel, 1992).

In general, findings from these studies revealed that physical education teachers tend to hold more positive attitudes toward teaching students with mild disabilities compared with students with more severe disabilities (Hodge et al., 2009; Kowalski & Rizzo, 1996; Rizzo, 1984; Rizzo & Vispoel, 1992). Rizzo (1984), Rizzo and Vispoel (1992) and Hodge and Jansma (1999) found in-service physical education teachers held more positive attitudes toward teaching students with learning disabilities compared with those with physical or behavioral disabilities. Female teachers were found to have significantly more positive attitudes toward teaching students with disabilities than male teachers (Folsom-Meek et al., 1999; Rizzo & Vispoel, 1992). Teachers with more teaching experience (Rizzo & Vispoel, 1991) and greater perceived competence (Rizzo & Kirkendall, 1995) were found to have significantly more positive attitudes toward teaching students with disabilities. Furthermore, coursework in APE (Ammah & Hodge, 2005; Hodge et al., 2009; Rizzo & Vispoel, 1991) and on-campus field-based experiences (Hodge & Jansma, 1999) were found to favorably enhance teachers’ attitudes toward students with disabilities.

The influence of contact between individuals with and without disabilities has been extensively investigated in a variety of settings, including APE, and across a variety of populations (e.g., lesbian, gay, bisexual, and transsexual individuals; racial and ethnic minorities, and individuals with disabilities). Interpersonal contact has been found to decrease prejudice between minority and majority populations (Allport, 1954; Pettigrew & Tropp, 2011). According to Allport (1954), contact is defined in terms of actual face-to-face interactions between members of different groups. By getting to know and understand others' experiences and perspectives, stereotypical associations and biases are expected to decrease. In general, it has been found that contact that is structured, frequent, pleasant, meaningful, and of equal status will foster favorable attitude change (Allport, 1954; Lieberman & Wilson, 2005).

Pettigrew and Tropp (2011) conducted a meta-analysis of research on intergroup contact. The results overwhelmingly show that greater intergroup contact predicts lower intergroup prejudice. The results also suggest that the effects of contact can generalize from positive experiences with individual members of a group to more positive attitudes toward those groups as a whole (Pettigrew & Tropp, 2011). The nature of contact has also been investigated, and researchers have found that when contact involves friendship between groups, there are greater reductions in prejudice (Davies, Tropp, Aron, Pettigrew, & Wright, 2011). Meaningful contact rather than superficial contact is more likely to result in prejudice reduction.

The earlier research in APE that examined the influence of contact on attitudes toward students with disabilities among students and teachers without disabilities tended to compare settings characterized by different degrees of contact (Archie & Sherrill, 1989; Tripp, French, & Sherrill, 1995). Archie and Sherrill (1989) compared the attitudes of students without disabilities toward students with disabilities in contact and noncontact physical education. Attitudes were measured by an adjective checklist. The researchers found no significant differences on overall attitudes; however, an item-by-item analysis revealed that students in the contact classroom rated the hypothetical child with a disability as more "fun" and "interesting" than the students in the noncontact classroom. The researchers argued that the lack of overall attitudinal change was due to the lack of genuine, meaningful contact between the students without and those with disabilities.

Tripp et al. (1995) compared the attitudes of 455 students without disabilities toward peers with disabilities (physical, learning, and behavioral) in contact and noncontact physical education classes. A secondary purpose was to compare attitudes of girls and boys. Attitudes were assessed using the Peer Attitudes Toward the Handicapped scale. The findings indicated that the setting significantly affected attitudes toward peers with physical and behavioral disabilities, but not learning disabilities. Moreover, the students in the contact setting had significantly more positive attitudes toward peers with behavioral disabilities than those in the noncontact setting. Inverse findings were found for peers with physical disabilities. In addition, females were found to hold more positive attitudes toward peers with disabilities than males.

In 2000, Murata, Hodge, and Little qualitatively interviewed 12 high school students without disabilities about their experiences working with three high school students with multiple disabilities. The emergent findings from the interviews indicated that, although skeptical and fearful initially, the feelings of the students

without disabilities toward the students with disabilities became more positive and inclusive over time. Murata et al. (2000) laid out several variables that contributed to the positive findings in their study: (a) equal status between and among peers with and without disabilities, (b) the instructor encouraged social interaction among all of the students, (c) contact was pleasant and rewarding, (d) contact was noncompetitive, and (e) sufficient opportunity to develop meaningful contact was available.

Also in 2000, Slininger, Sherrill, and Jankowski examined the effects of structured contact on attitudes and intentions of students toward peers with severe intellectual disabilities and those who used wheelchairs. During the 4-week experimental period (20 sessions of 25 min), two children using wheelchairs were integrated into each contact class, and a special helper model was implemented. The experimental design was pretest–posttest of randomized groups. Attitudes were assessed using an adjective checklist and an intention survey. A qualitative component also was included in which the researchers analyzed the students' weekly journal responses to the prompt: "Please write to me what you liked or disliked about the class this week." The findings indicated that the female students' attitudes were more positive than those of the male students, but did not change as a result of the intervention. While the attitudes of the male students did reveal significant change from the pretest to posttest when in the structured contact class, the authors indicated that the change was small and meaningless based upon the effect size. Slininger and colleagues (2000) suggested that expected changes in attitudes were not found due to the large class size, the limited and less intensive contact between the students with and without disabilities, and the already positive attitudes held at the pretest.

The majority of research studying attitudes in APE has used a quantitative methodology and often when a qualitative approach is included, it is used only to analyze the content of students' reflective logs or journals rather than conduct an in-depth examination of students' attitudes and experiences. Employing a grounded theory approach, the purpose of the current study was to qualitatively examine the influence of SL on undergraduate kinesiology students' attitudes toward and experiences working with P-12 students with disabilities. More specifically, we examined the following research questions: (a) What were the undergraduate kinesiology students' attitudes toward P-12 students with disabilities? (b) What were the undergraduate kinesiology students' experiences working with P-12 students with disabilities? (c) How were their attitudes affected by participation in a SL project? and (d) What did the kinesiology students "take away" from the SL experience? For the purpose of this study, an attitude is defined as "an individual's viewpoint or disposition toward a particular 'object' (a person, a thing, an idea, etc.)" (Gall, Borg, & Gall, 1996, p. 273).

Method

Participants and Setting

To participate in the current study, potential participants must have been a current undergraduate kinesiology student and successfully completed APE within the past year at a university located in southeast Texas. The participants consisted of nine female and five male ($n = 14$) undergraduate students majoring in kinesiology, three of whom were majoring in physical education, four in exercise science,

and four were kinesiology generalists. The participants were selected as a result of availability and willingness to participate and therefore represented a convenient sample. The participants ranged in age from 20 to 42 years ($M = 24.0$, $SD = 5.3$). Thirteen of the participants racially identified as White (non-Hispanic) and one as Hispanic. All of the participants had completed the APE course with the same course instructor within the last 9 months. None of the participants identified any personal physical or mental disabilities. All of the participants indicated having minimal to no experience with SL or to have prior experience working with individuals with disabilities. For confidentiality purposes, the researchers assigned a pseudonym to each participant. The university's institutional review board granted permission to conduct this study, and all participants provided informed consent.

Adapted Physical Education Service-Learning Project

APE is a required course for all undergraduate kinesiology majors at the university where the study was conducted. As a component of the course, students are required to complete 6 contact hours of a SL project. The university's Department of Health and Kinesiology and local school district established a partnership in 2009 to provide P-12 students with disabilities with individualized and developmentally appropriate adapted physical activity, while simultaneously providing kinesiology students with an authentic opportunity to plan, implement, and assess their instruction. Despite the emphasis on placing students with disabilities in the GPE setting, the local school district preferred to bring the P-12 students with disabilities to the university for the SL experience. The P-12 students with disabilities typically received physical education within the GPE at their respective schools.

Before the arrival of the P-12 students with disabilities to campus, the kinesiology students were provided instruction (in the classroom) on the SL project, types of disabilities, types of modifications, and adaptations for different types of disabilities and instructions on how to complete the reflective logs and essay. At the fifth week of the academic semester, P-12 students with disabilities were transported by the school district to the university campus once per week for 6 consecutive weeks. The P-12 students were divided in two groups by the district—elementary level (P-4th) and intermediate and secondary level (5th-12th). Each group received 3 total contact hours of instruction, respectively. All 6 contact hours were conducted in one of the university's gymnasiums. The kinesiology students typically worked with three to six different P-12 students per semester; however, some of the kinesiology students worked with the same student during multiple class sessions.

Station teaching was employed to deliver the learning activities to all of the P-12 students. Learning activities were based on skill themes and movement concepts (Graham, Holt/Hale, & Parker, 2013) and the Physical Best activity guide – elementary level (National Association for Sport and Physical Education, 2011). Modifications and adaptations were made based upon the needs and skill ability level of each P-12 student. The kinesiology students taught P-12 students with the following disabilities: cerebral palsy, hearing and visual impairments, attention deficit hyperactivity disorders, pervasive developmental disorders (e.g., autism, Rett syndrome), intellectual disabilities (e.g., Down syndrome), various learning disabilities, and mental health disorders. Approximately 50% of the P-12 students had been diagnosed with a disability that would be classified as “visible”

(e.g., Down syndrome, cerebral palsy, using a wheelchair, using a walker). The school district's certified adapted physical educator and the APE course instructor supervised and facilitated positive, noncompetitive social interactions between the kinesiology students and P-12 students with disabilities in each class session. After each class session, the kinesiology students were required to complete a reflective log about their experiences teaching and working with P-12 students with disabilities. These logs were later used to complete a reflective essay as part of the course requirements.

Data Collection

A grounded theory approach was employed in the current study (Strauss & Corbin, 1998). Grounded theory is "a qualitative research method that uses a systematic set of procedures to develop an inductively derived grounded theory about a phenomenon" (Strauss & Corbin, 1998, p. 24). Within a grounded theory approach, the researcher begins with an area of study, rather than a predetermined theory, and what is relevant or significant to that area is allowed to emerge. We chose to qualitatively explore the participants' attitudes and experiences using focus group interviews.

Undergraduate students enrolled in APE within the past 9 months were invited to participate in a focus group interview. Focus group interviews generally involve 3-12 people who are typically selected because they share certain characteristics or experiences relevant to the study. The purpose of a focus group interview is to gather information on a particular topic guided by a set of interview questions that encourage discussion among the focus group participants. In contrast to individual interviews, focus group interviews allow for peer-to-peer interaction, which may allow participants to challenge each other and build upon each other's ideas (Patton, 1990). Furthermore, some have argued that focus group interviews may help participants overcome the intimidation associated with an individual interview (Patton, 1990).

There were initially two focus group interviews scheduled; however, after completion of the first two focus groups, a third focus group interview was scheduled to ensure saturation was achieved (Patton, 1990). Fourteen students participated in the three focus groups; six participated in the first focus group, three in the second, and five in the third. Each focus group lasted approximately 75-90 min and was conducted by the first author. The instructor for the course was not present in the focus group interviews to allow the participants to speak freely about their experiences. At the onset of each focus group, the interviewer, who has extensive experience in qualitative interviewing and no "authority status" over the participants, provided each participant with a consent form and demographic form and discussed the format for the focus group interview. All focus group interviews were audiotaped for transcription purposes.

The focus group interviewer used a semistructured interview guide (Patton, 1990) and focused on (a) the participants' prior experience with SL and contact with individuals with disabilities; (b) preconceived ideas, attitudes, and experiences associated with disability; and (c) their overall experiences of working with P-12 students with disabilities. Interview questions included, "How would you describe your attitude when you learned you would be teaching P-12 students with disabilities as a requirement of the course?"; "Talk to me about the first day of

working with the P-12 students”; and “How would you describe your relationship with the P-12 students you worked with?” Probing questions were used by the interviewer as a way in which to stimulate greater discussion and understanding of the participants’ responses. Data collection ended at the completion of focus group three, when saturation was achieved (Patton, 1990).

Data Analysis and Trustworthiness

All interview data were transcribed verbatim. Both authors read each transcript thoroughly to get a sense of the whole and then inductively analyzed the interview data using the procedures outlined by Strauss and Corbin (1998) for open, axial, and selective coding. Upon reading and rereading the transcripts, an initial set of codes from the collected data was independently developed by each researcher. Known as open coding, the researchers coded or labeled words and phrases found in each transcript. Essentially, each line, sentence, or paragraph was read in search of the answer to the question, “What is this about?” These preliminary codes, or meaning units, were created to determine possible themes. Then, the initial set of codes was compared and discussed by the two researchers. Discussion ensued between the researchers until consensus was obtained.

The process of “coding the codes,” or axial coding, followed (Strauss & Corbin, 1998). In this stage, data are put together in new ways as researchers seek to identify meaningful relationships between the themes and subthemes. This process of axial coding (Strauss & Corbin, 1998) involves generating connections among the themes and subthemes to understand the phenomenon. During selective coding, these previously identified themes and concepts are further defined, developed, and refined and then brought together to tell a larger story. In some ways, selective coding is not much different than axial coding, only that it is done at a higher more abstract level of analysis. During this process, the researchers discussed their analyses until consensus was obtained.

Trustworthiness of the data was established in several ways. The use of multiple focus groups allows “individual viewpoints and experiences [to] be verified against others and, ultimately, a rich picture of the attitudes, needs or behavior of those under scrutiny may be constructed based on the contributions of a range of people” (Shenton, 2004, p. 66). As the instructor of the course, it was especially important that the second author recognize and monitor his unique biases as they relate to the current study. To do so, the two authors organized regular meetings as a way in which to discuss the study at various stages in its development. To ensure that the participants responded honestly, all of the participants were informed at the onset of each focus group that there were no correct responses and that they were free to discontinue participation at any time. A draft of the manuscript was provided to three university professors with expertise in special education and APE. The peer reviewers were asked to review the emergent themes and corresponding subthemes. While no major changes were suggested, several minor points were discussed until consensus was achieved. Of the 14 participants, only one of the participants provided feedback and indicated that the results accurately represented her experience. Several of the participants acknowledged receiving and reviewing the emergent themes, but did not provide specific additions or changes.

Results

The purpose of this study was to qualitatively examine the influence of SL on undergraduate kinesiology students' attitudes toward and experiences working with P-12 students with disabilities. Each of the following five themes will be addressed: (a) initial reactions, (b) selection of P-12 students, (c) preconceived attitudes, (d) the benefits of SL, and (e) positive experience.

Initial Reactions: "Dreading It"

Each of the participants recalled their initial thoughts and feelings upon learning on the first day of their APE class that they would work with P-12 students with disabilities as a required component of the course. While three of the participants indicated feeling "excited" about the opportunity, 11 of the participants indicated feeling "nervous," "afraid," and/or "scared." As Connie stated, "I was dreading it. I'm just not good with kids, and if you mix kids and disability, I think that it's going to be hard for me." When asked why they were nervous, the participants expressed apprehension about the new experience, indicating that they "never worked with anyone with a disability" and "didn't know what to expect." Several of the participants specifically expressed concern regarding their ability to communicate with the P-12 students. As Zain stated, "I think I was more scared about the communication area. What if they didn't understand and they didn't know how to articulate what they wanted to do?"

As the semester progressed, the participants suggested that the anxiety and nervousness dissipated. As Jeff stated,

The first few weeks were nervous, but as the weeks went on it was a joy to work with them. The next time you knew it would be a challenge, but you were ready for it. You had seen all the kids so you knew what to expect. I was excited the second time.

P-12 students using a wheelchair were considered especially intimidating and anxiety-provoking for six of the participants. Frank described his apprehension to selecting a P-12 student using a wheelchair as follows:

I would say that it is much harder to approach people in the wheelchairs just because you don't have as much . . . well, I don't have as much experience with people in wheelchairs so I don't know if they want me to help them do this or if they want to try and do it themselves. I don't want to get in their way so dealing with that and getting over the whole wheelchair thing.

In one of the focus groups, Gwen, Angela, and Zain discussed their initial uncertainty associated with the P-12 students using wheelchairs,

Gwen: He said there would be kids in a wheelchair, and that's intimidating.

Interviewer: Talk about that. Why is that intimidating?

Zain: [questioning tone] What are we going to do physically with that person?

Angela: How are we going to do a physical activity with someone who is in a wheelchair?

Zain: It's overwhelming . . . like you have to make them active.

Selection of P–12 Students: “Got Lucky”

At the onset of each teaching session, the kinesiology students were instructed to select a P–12 student to work with for each 50 min class period. It was recommended by the instructor that the kinesiology students select a different P–12 student each class session to expose them to different experiences. The participants’ apprehension and nervousness affected the P–12 student they selected to work with, especially during the first teaching session.

Five of the participants used the phrase “got lucky” in reference to working with a P–12 student that was considered “easy,” evident in the dialogue between Zain and Ana in one of the focus groups:

Zain: You just have to try to talk to them. Try to get them to kick the ball, try to do something, just try to see what they can do first, and then you’ll kind of get a feel for how they are going to react.

Ana: All of your kids were like that? [surprised tone]

Zain: Yeah. I guess I got lucky. The only one that was bad was this girl in a wheelchair, and she couldn’t do anything, and she just got ticked off.

Ryan and Jane shared a similar dialogue in another focus group:

Ryan: I got lucky because they [the P–12 students I worked with] kept me entertained.

Jane: But unfortunately not everyone got lucky. I remember one [kinesiology student], he did not get lucky. This one child wanted to run all over the place and he had to chase him the entire time. Some of us got kids that really wanted to participate, but some of us got kids that you really had to stay focused on.

According to the participants, it was the P–12 students that “you really had to stay focused on” and/or those that “ran all over the place” that were considered “difficult” or “unlucky” to be matched with.

Several of the participants described wanting to select a P–12 student that “looked the most nondisabled [students with a nonobservable disability].” As Connie explained, “you wanted to select the kid that you felt like you were going to be able to communicate with” or as five of the participants suggested, the P–12 student that was going to be “easy.” Angela elaborated on this notion of an “easy” P–12 student as follows:

I picked him [my student] because he was the quietest one sitting on the wall and I was like, he’ll be easy. That was not right. He was the most difficult because he had some form of autism and he couldn’t really speak. He had a teacher’s assistant with him and she told me that he could do sign language and I was like, “well, I don’t know sign language,” so I’m kind of . . . this isn’t good.

Similar to Angela, four other participants described the P–12 students on a continuum from “easy” to “difficult.” P–12 students that were described as “easy” were those who were mobile, able to verbally communicate (according to normative expectations), and behaved in a socially acceptable manner. Those who were labeled “difficult” were described by the participants as a source of frustration.

According to the participants, “difficult” students with disabilities were typically those that were wheelchair users or students with hyperactivity or autism.

All of the participants discussed frustrations they experienced while working with the P-12 students. Almost all of their frustrations were rooted in P-12 student behavior, or perceived misbehavior. As Ana indicated, “I had this kid [name of child]. He just ran around. He didn’t like to listen and he wasn’t always aware of his spatial awareness. It was hard to get him to do anything.” Similarly, Jessica discussed her frustrations with a P-12 student with autism:

For me, [name of P-12 student] had autism, and he wanted to be there and wanted to do everything, but he didn’t want to do the station you were at. He would be so excited to go to the station, but as soon as you got to that station he would be so excited to get to the next station. He wouldn’t focus on anything.

Preconceived Attitudes: “They’re Not Going to Break”

All of the participants discussed their preconceived attitudes and ideas pertaining to individuals with disabilities and how the SL experience affected these attitudes. All 14 of the participants indicated that the SL experience positively affected their attitudes toward individuals with disabilities. Two of the participants expressed embarrassment regarding their prior attitudes and beliefs. One of the primary preconceived attitudes toward individuals with disabilities was a sense of perceived frailty. Ryan stated, “I mean, they’re not going to break. They’ll get just as rough. I think when I figured that out that I don’t have to treat them like they’re incompetent.” Thomas acknowledged the kinesiology students’ fear of touching or hurting the P-12 students as follows:

Pick them up . . . it’s not going to hurt them to touch them or play with them. A lot of [kinesiology students] were hesitant because they [P-12 students] have a disability and think “I might hurt them more.” You’re not going to hurt them. Like if someone has cerebral palsy and his left hand doesn’t work right, still pick him up and play with him.

Six of the participants described the P-12 students as “not that different than regular kids.” As Thomas stated, “They weren’t that much different than other younger kids I know. There were just really active so it really wasn’t that much different.” In particular, the participants were surprised by the P-12 students’ physical and intellectual abilities. As Zain stated, “It showed [me] how smart they really are. They really can throw a tennis ball; I was surprised.” Frank echoed this sentiment, “I didn’t think they would be able to do all of the things they could do . . . but they were.”

Two of the participants indicated becoming aware that there was great diversity across disability. As Ana explained,

I have a cousin who is autistic so I was like, “oh all autistic kids are the same.” [Now] I think that was just horrible . . . I mean for me to even think that, but it opened my eyes that all Down syndrome kids aren’t the same. Everyone’s an individual. The disability doesn’t define them. They may have the same disability, but they are two completely different people.

The Benefits of Service-Learning: “Hands-on”

A core purpose of the current study was to understand what the participants perceived they learned as a result of working directly with students with disabilities. One of the primary learning outcomes highlighted by almost all of the participants was an increased awareness of how to interact with students with varying disabilities. As Jessica explained,

The main thing I learned from them was interaction . . . more of how to approach them and talk with them. Two of the kids I worked with couldn't talk at all, but you have to realize that you have to learn each one and figure out how to interact with them in the best way.

All of the participants also made reference to the knowledge they acquired of how to adapt physical activities in the classroom. As Kara explained,

I learned about the adapted classroom. I mean, we can learn how to make a classroom adapted, but you don't actually know until you're there with a child having to help him adapt. You learn how each student . . . how you have to adapt to their specific disability. You can't generalize because they're so different.

The positive benefits associated with working “hands-on” with students with disabilities were echoed by all 14 of the participants. As Jeff suggested, “[instructor] prepared us, but it's a hands-on deal. . . . Once you're there, you just have to figure it out, and you have to think on your own.” Jane also commented,

You can have someone tell you what to do, but until you are in that situation, that's the reality of hands-on. You can sit in the classroom all day, but it's not until you get in the gym and actually get to apply what it is that you are learning that you truly understand.

Positive Experience: “Enlightening and Rewarding”

All 14 of the participants indicated that the opportunity to work with students with disabilities was a positive experience, describing the opportunity as “enlightening,” “rewarding,” and/or “enjoyable.” Ana described the experience as “a privilege” and recommended that “everyone should experience something like it.” Several of the participants referenced specific memorable moments working with a particular P–12 student. As Jeff detailed,

I worked with a kid in a wheelchair, and I have never worked with anyone in a wheelchair. When I got to him, he had a ball and a string. He couldn't move his hands; he couldn't talk. He could make facial expressions. All you could do was push him to the stations, and I would get on my knee, and we would watch the other kids. You could tell he enjoyed being there. I couldn't do the activities [with him], but just talking to him, seeing him smile, and seeing him enjoy the kids around him was memorable.

While none of the participants previously reported interest in APE, four of the participants indicated that the positive SL experience they had working with P–12 students with disabilities encouraged them to think about their future career

goals. Angela and Jessica indicated that they would not have considered working with individuals with disabilities before completion of the APE course. As Jessica explained, “I don’t know if I would have thought the same way . . . I am more open to the idea. I am interested in getting involved in different activities. I don’t think I would feel this way if I didn’t have this class.” Upon completing the semester, both Thomas and Frank had recently committed to work or volunteer at organizations that provide services to individuals with disabilities. As Thomas explained, “I applied for an internship over the summer [to work with individuals with disabilities]. I don’t think if I had done this class that I would have signed up to do this. It changed my life.”

Discussion

Employing a grounded theory framework, the purpose of this study was to qualitatively examine the influence of SL on undergraduate kinesiology students’ attitudes toward and experiences working with P-12 students with disabilities. The majority of the participants expressed nervousness and anxiety when introduced to the SL component of the course. In particular, it was working with P-12 students with disabilities that evoked fear and uncertainty among the majority of the participants. Consistent with the participants, research suggests that individuals without disabilities have been found to experience discomfort and trepidation with individuals with disabilities, particularly when they have limited experience working with individuals with disabilities (Murata et al., 2000). According to Pettigrew (1998), anxiety is a common initial reaction when groups that are different from one another interact for the first time. With continued contact, as evident from the participants in the current study, this anxiety generally reduces (Murata et al., 2000; Pettigrew, 1998). Similarly, Shippen, Crites, Houchins, Ramsey, and Simon (2005) found that future general educators had high levels of anxiety when they learned they would be responsible for including students with disabilities in their classrooms. Field experience and coursework have been found to “greatly enhance the calming effect on teacher candidates [working with students with disabilities]” (Shippen et al., 2005, p. 97).

While research has examined the differences in attitudes toward individuals with mild and severe disabilities, the participants in the current study did not use the terms “mild” or “severe” to describe the P-12 students’ level of disability. Rather, the participants spoke about specific mannerisms and behaviors that accompanied the various disabilities. Those P-12 students whose disabilities were more visible or whose mannerisms and behaviors were in contrast to “normative expectations” were evaluated more negatively by the participants, particularly at the onset of the SL project. For example, P-12 students using a wheelchair were evaluated more negatively and approached with greater apprehension by several of the participants in the current study. Louvet (2007) argued that such negative evaluation and fear may be due to “discomfort and social avoidance produced by direct contact with disability” (p. 299). It has been argued that the visibility of one’s disability may influence how people evaluate an individual with a disability and the individual without a disability’s level of comfort (Louvet, 2007). According to the instructor of the APE course, approximately 50% of the P-12 students had been diagnosed with a disability that would be classified as “visible” (e.g., Down syndrome, cerebral

palsy) or visibly “different” (e.g., using a wheelchair, using a walker). In support of earlier literature (Louvet, 2007), examination of the focus group interview data reveals that it was the P–12 students with visible disabilities that provoked the most fear and uncertainty among many of the participants. It is possible that what the participants in the current study define as a *visible disability* may parallel the findings from research focused on attitudes toward individuals with *severe disabilities* (Kowalski & Rizzo, 1996; Rizzo, 1984; Rizzo & Vispoel, 1992).

Words and phrases shape our realities and the ways in which we view the world. Findings from the current study revealed that several of the participants used terminology and/or phrases that devalued or discredited individuals with disabilities. Evaluating the P–12 students with disabilities on a continuum from “good” to “difficult” and/or suggesting that a kinesiology student “got lucky” when paired with a P–12 student that was “easy” were especially problematic ways in which to describe and evaluate the P–12 students. As previously noted, the participants were evaluating the P–12 students based upon normative expectations related to behavior and appearance (Harper, 1999); when the P–12 students did not act in accordance with these normative expectations, the participants expressed frustration or disapproval. Consistent with the participants, Mackelprang and Salsgiver (2009) suggested that it is not uncommon for people without disabilities to “exhibit feelings of frustration, uncertainty, and bigotry when encountering a person with a disability, especially if the disability is severe” (pp. 6–7). Throughout childhood and into adulthood, people are socialized through a variety of socializing agents (e.g., family, media, peers, school) that teach a set of expectations about how people are to dress, behave, and physically move. When a person’s appearance, manner, or behavior challenges these expectations and social norms, people often respond negatively, with uncertainty or disapproval (Harper, 1999). As the participants had little to no experience working with individuals with disabilities, it is possible that their lack of diverse experiences and opportunities may have affected their expectations in terms of “appropriate” behavior and/or appearance. As Harper (1999) stated, “stereotypical responses often involve a physical difference that violates the expectations of the individual’s normative experience history” (p. 136). Furthermore, all of the participants in the current study self-identified as individuals without disabilities. Those without disabilities often take their ability status for granted, unaware of how the everyday world is structured to favor the temporarily able-bodied. We can speculate that the participants in the current study, due to their ability status, had not had to personally consider their privileged ideas associated with ability and disability.

Stigmatization and stereotyping toward individuals with disabilities are pervasive (Barg et al., 2010). All of the participants in the current study came to the SL project with preconceived ideas and attitudes toward individuals with disabilities. Consistent with the participants’ perception of the P–12 students as frail, researchers have found that individuals with disabilities are often perceived and/or described as sick, weak, or persons in need of care (Mackelprang & Salsgiver, 2009). Several of the participants indicated that they were initially concerned about the potential physical harm they may cause if they did not work with the P–12 students in a gentle or careful manner. The participants suggested that with time this perception dissipated. While a general perception of students with disabilities as weak is limiting and stereotypical, it is also critical that the participants of the

current study recognize the severity and unique abilities of each P-12 student's disability. Several of the participants in the current study compared the P-12 students to "regular" or "other" students (i.e., those without disabilities) and were surprised by the P-12 students' personalities and capabilities. Such surprise may be rooted in the assumption that individuals with disabilities are often regarded as physically and intellectually incompetent and rarely as capable individuals with unique personalities or individual aspirations (Mackelprang & Salsgiver, 2009). Several of the participants also suggested that as a result of working with the P-12 students with disabilities, they became aware that not all disabilities were the same. It seems that the SL project helped the participants in gaining a better understanding of the individuality of each P-12 student with a disability. These findings are similar to those of Campbell, Gilmore, and Cuskelly (2003), who found that preservice teachers demonstrated a greater understanding of the differences between persons with Down syndrome after a combination of instruction and field-based experiences.

It is important to remember that almost all of the participants in the current study had little to no experience working with individuals with disabilities, and therefore, the SL project served as their first opportunity to interact and communicate with P-12 students with varying disabilities. As previously noted, the participants in the current study discussed their preconceived attitudes toward individuals with disabilities and how their attitudes were influenced by the SL project. According to Allport (1954), as a result of getting to know and understand others' experiences, stereotypical associations and biases are expected to decrease. It is clear in the focus group interview data that the majority of the participants held stereotypical attitudes and ideas toward individuals with disabilities. Consistent with Hodge and Jansma (1999), it is also evident that working one-on-one with P-12 students with disabilities helped to make the participants in the current study aware of and change some of their stereotypical assumptions and attitudes.

While the contact between the kinesiology students and the P-12 students with disabilities was interactive, pleasant, rewarding, and noncompetitive, the duration and frequency of the contact could be increased to promote a more personal, meaningful relationship between the kinesiology students and the P-12 students (Murata et al., 2000; Slininger et al., 2000). In addition, the majority of the participants worked with three to six different P-12 students over the course of the SL project, which may have further impeded the development of closeness and mutual respect which is often associated with greater prejudice reduction.

The participants in this study reported numerous benefits from the SL component of the APE course. The hands-on aspect of the SL project was reported by all of the participants as one of the main benefits, providing the participants with an opportunity to develop their interpersonal and problem solving skills and acquire an understanding of how to adapt physical activities and how to manually guide students with disabilities. The majority of the participants indicated that their ability to communicate and interact with student with disabilities was enhanced as a result of the SL. Consistent with the participants, Buswell and Leriou (2007) found that undergraduate APE and therapeutic recreation students that participated in SL reported gains in their interpersonal skills working with individuals with disabilities. In line with previous research, the SL project in this study may have also influenced the participants' ability to problem-solve (Levesque, Knapp, &

Fisher, 2010). The participants suggested that being hands-on required them to “think on their own feet” and gave them the opportunity to make instructional decisions on their own.

The results also suggest that the SL project provided the participants an opportunity to apply academic content to real-life situations. For example, the participants learned how to adapt learning activities to accommodate the abilities and needs of the P–12 students. In addition, the participants learned how to use manual guidance to physically assist the P–12 students with disabilities to perform the desired skills. These findings support previous evidence that SL may enhance the knowledge and teaching skills of students working with individuals with disabilities (Buswell & Leriou, 2007) and P–12 students in general (Meaney, Bohler, Kopf, Hernandez, & Scott, 2008). Consistent with previous research (Buswell & Leriou, 2007), the participants reported a great deal of personal gratification from the SL project, describing it as “rewarding” and “enjoyable.”

The present study was limited in several ways. Nine of the 14 participants identified as female. It is possible that the sex of the participants may have influenced the findings, as research suggests that females tend to hold more positive attitudes toward individuals with disabilities (Folsom-Meek et al., 1999; Rizzo & Vispoel, 1991). In addition, SL emphasizes the use of a reflective component that allows students to reflect on their experiences. All students enrolled in APE were required to complete reflective logs and essays as a component of the SL project. Analyzing the students’ responses would have served as an additional form of triangulation and added to our understanding of the participants’ attitudes, perceptions, and experiences working with the P–12 students. While there are no specific requirements for the number of participants involved in a focus group interview, focus group two had only three participants, which may have influenced the intensity of interactions between participants. In addition, asking the participants to recall their attitudes held before the SL project may have been influenced by the experience of working with the P–12 students. Ideally, future research should incorporate a pre- and postinterview if qualitatively examining attitudinal change. Furthermore, of the approximately 120 students who were recruited to participate in the current study, only 17 volunteered to participate and 14 participated. The kinesiology students that volunteered to participate in the current study may have held stronger feelings, positive or negative, about their experiences of working with the P–12 students with disabilities.

Conclusions

The findings of the current study indicate that the anxiety experienced by the majority of the participants at the onset of the SL project dissipated over time. This anxiety, along with their attitudes, influenced the ways in which the participants selected and perceived the P–12 students with disabilities. The opportunity to work hands-on with students with disabilities provided the participants the opportunity to explore their preconceived ideas surrounding disability, positively affect their attitudes, and develop interpersonal and problem solving skills for working with students with disabilities in a physical activity setting. It is evident from our findings that contact through the SL experience with P–12 students with disabilities

helped the participants become aware of and transform some of their preconceived ideas and stereotypes. The results of the current study are consistent with previous research that emphasizes the importance of incorporating SL methodology in APE courses as a way to enhance students' attitudes and knowledge of individuals with disabilities. Furthermore, the findings illustrate that SL benefited the participants by providing a different learning approach and placing learning in a more meaningful context than the traditional classroom lecture.

Implications for Educators

The findings from the current study demonstrated that SL can be a powerful teaching methodology to enhance students' attitudes toward individuals with disabilities. There are, however, a number of recommendations for educators based upon some of the findings from the current study. It is recommended that when designing similar SL experiences for undergraduate students working with students (or adults) with disabilities, undergraduate students are given the opportunity to work with one student for an extended period of time. This extended time may provide a number of educational benefits for both the undergraduate student and individual with disability. The manner in which the kinesiology students selected the P-12 students in the present SL project was not appropriate; in contrast to allowing an undergraduate student to select a student with disability, it is recommended that the APE instructor or classroom teacher pair or randomly assign each undergraduate student with a student with disability. Depending upon the circumstances, it may also be appropriate to allow the students with disabilities the opportunity to participate in the selection process. Such an approach would create a more positive learning and interactive environment and assist in fostering perceptions of equal status and choice. It is also recommended that undergraduate students are paired with the same student with disability throughout the SL project.

The APE instructor could also provide an opportunity for the undergraduate students to discuss their feelings, preconceived ideas and attitudes before working with the students with disabilities. Such a discussion could incorporate former undergraduate students who have taken the course to share their experiences and lessons learned. In addition, integration of disability awareness activities such as inviting speakers with disabilities to the classroom or having kinesiology students ambulate using a wheelchair or walker may serve to increase understanding and acceptance of students with disabilities (Lieberman & Houston-Wilson, 2009), as well as decrease their anxiety and apprehension (Murata et al., 2000).

In addition, educators and practitioners must consider the quality and duration of contact between individuals with and without disabilities when designing a SL project. The importance of direct contact is even more critical due to the increased numbers of individuals with disabilities being integrated into schools and communities. Kinesiology graduates will enter a professional world in which they must be prepared to serve people with varying abilities. Undergraduate students in kinesiology may have only one required course in APE before going into the professional field. As such, it is important to not only provide kinesiology students with theoretical knowledge, but also the opportunity to work in direct contact with individuals with disabilities. Furthermore, knowledge about working

with individuals with disabilities should be integrated throughout the kinesiology curriculum (e.g., sport sociology, sport psychology, biomechanics, motor learning, sport administration, etc.), allowing students the opportunity to examine and understand ability from an interdisciplinary perspective.

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