

THE IMPACT OF EXPOSURE TO ELITE WHEELCHAIR ATHLETES  
PERCEPTIONS OF PRE-SERVICE PHYSICAL  
EDUCATION TEACHERS

by

LENOISE RICHEY, JR.

BRENT HARDIN, COMMITTEE CHAIR  
MARGARET STRAN  
MARK RICHARDSON  
OLEG SINELNIKOV  
KAGENDO MUTUA

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## ABSTRACT

This study examined the perceptions of six pre-service physical education teachers on students and athletes who use a wheelchair. The study used qualitative techniques to interview each individual participant twice, once prior to the experiences and once following all experiences. Critical incidents were recorded following each experience, and two focus groups sections were done with all participants. The purpose of these sessions was to get an insightful understanding of how the participants viewed students who use wheelchairs. The findings of this research study have been summarized into six themes: 1) self-confidence is key to success; 2) modification provides opportunity; 3) experience is essential to competence; 4) different but equal; 5) ability levels of athletes; and 6) wheelchair athletic intensity. Although this study included only six pre-service physical education teachers, the themes found in this study could be used for future research or by curriculum designers to better inform the instruction of pre-service teachers on their view of students who use a wheelchair.

## DEDICATION

I would like to dedicate this book to my grandmother. By my grandmother's many hours of prayer is the opportunity possible. I thank you for all you have done and for pushing me to continue my education. Most importantly, I thank you for instilling within me that through Jesus Christ anything is possible.

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## CHAPTER I: INTRODUCTION

It is required by law that individuals with disabilities receive instruction in physical education classes, Individuals with Disabilities Education Improvement Amendment Act of 2004 (IDEA). It is the duty of physical educators to provide a successful learning experience for all students in their classes including students who use wheelchairs or have a disability. Getting students in wheelchairs actively involved in physical education class is an enduring task for most physical educators. Most physical educators are teaching these students in a regular physical education class along with able-bodied students. It is the attitude of physical education teachers that serve as the starting point for education and teaching students with a disability (Heikinaro-Johansson & Sherrill, 1994; Sherrill, 1993).

Researchers conducted a study in which they compared the thoughts of teachers on how to provide special education services for students within the general education population (Shippen, Crites, Houchins, Ramsey, & Simon, 2005). It was noted that throughout history, general education and special education are considered two different settings. However, current laws and educational trends require that special education students be serviced in the general education classrooms by regular education teachers. The reason for this adjustment is IDEA, which required special education students to be considered for the general education classroom. Their study found that preservice teachers were nervous about serving special education students before completing a college course in teaching students with disabilities. It was found that their

anxiety and hostility about serving these students was greatly reduced by the end of the course.

The term least restrictive environment (LRE) is an IDEA principle in special education. LRE requires that students with disabilities be placed in a regular classroom if at all possible. Decker and Jansma (1995) examined how closely LRE related to physical education, and how physical education teachers were serving special education students. The study collected data from 452 schools across the United States in all grade levels and geographic regions. It was found that some schools were providing adaptations for special education students in physical education classes, but the majority of special education students were receiving the same physical education as the regular students without regard to adaptations for physical limitations. The authors suggested that the study be used to alter the format of physical education to better service special education students (Decker and Jansma).

Block and Obrusnikova (2007) examined literature on inclusion in general physical education classes. The researchers found that there were numerous positive outcomes of inclusion in general physical education classes based on the research done over the past ten years. But research also showed that there are some problems associated with inclusion in general physical education class. The major problem seems to be the ability of general physical education teachers accommodating students with disabilities, which in turn reflected negative experiences of students with disabilities in inclusive general physical education settings.

Moreover, Block (1994) stated that inclusion is causing a great stir in education. The inclusion is many times misunderstood, which could be a factor for the fear and confusion regarding the issue. Physical education teachers especially need more professional development on helpful ways to guide children through physical education. They should be given ample time to prepare to teach the students, and they should be offered proper support. The articles look at

inclusion in the physical education setting as an adapted physical education provided within the regular physical education classroom.

Many physical education teachers want to include all students in their classes but have difficulty accomplishing this task. For example, Silverman (1993) illustrated the importance of appropriate instruction and practice with corresponding correlation to student achievement. In short, appropriate instruction along with practice has a positive effect on student achievement (Silverman 1993). Most physical education teachers must understand the importance of including students with special needs in physical education class. Cratty (2004) stated that children with special needs who are active in physical education can help decrease muscular tension, suppress the impulse to move inappropriately and excessively, and help children manage their own thoughts more effectively.

Physical educators must understand that including students with disabilities is important but how they are included is equally as important. Silverman, Kulinna, and Crull (1995) showed a positive correlation between student achievement and task explicitness. The adapted physical education teacher must also have the ability to change or modify a lesson in order to ensure the success of all students.

### Purpose of the Study

Physical educators must be adequately prepared to teach, work with, and coach students with disabilities. One of the most important factors contributing to quality physical education programs is the attitude of physical educators toward teaching students with disabilities (Stewart, 1988; Tripp & Sherrill, 1991). With this in mind, university programs must develop and implement strategies to prepare future graduates to work with individuals with disabilities (Jansma, 1998; Tripp & Sherrill, 1991). When physical education teacher education programs

know students' attitudes and perceptions about teaching students with disabilities are negative they can improve physical educators' attitudes about teaching students with disabilities through educational experiences (Patrick, 1987; Rizzo & Vispoel, 1992; Stewart, 1990). The purpose of this study was examining the attitudes of pre-service teachers toward students who use a wheelchair.

This study addressed the following questions:

1. What characteristics do pre-service physical education teachers perceive as important to successfully teach students in wheelchairs;
2. How do pre-service physical education teachers view competitive wheelchair athletes and competitive wheelchair athletics programs; and
3. How are physical education teacher's attitudes toward students or athletes in wheelchairs impacted after being exposed to competitive wheelchair athletes and competitive wheelchair athletics programs?

#### Definition of Terms

For the purpose of this study, the following definitions were used to hold special meaning for this study.

*Competitive Wheelchair Athlete:* is a male or female student who participates in an organized college wheelchair sport team.

*Classification:* Wheelchair basketball rules include player classifications as follows:

- Class I: Complete motor loss at seventh thoracic vertebra (T-7) or above or comparable disability where there is a total loss of muscular function originating at or above T-7.
- Class II: Complete motor loss between eighth thoracic vertebra (T-8) through

second lumbar vertebra (L-2) where there may be useful motor power of hips (hip flexors, hip adductors); however, where there is no useful motor power of the lower extremities. Hip flexors may muscle test grade good (4); hip adductors may muscle test grade fair (3); and quadriceps may muscle test grade poor (2).

- Class III: All other physical disabilities as related to lower extremity paralysis or paresis originating at third lumbar vertebra (L-3) or below. Included in this class are lower extremity amputees with manual muscle test grades of Good (4) to Normal (5) motor power of the pelvis and the residual limb. (National Wheelchair Basketball Association, 2009).

*Exposure:* The condition of being subject to some effect or influence (Merriam-Webster).

*Pre-service teacher:* A student who has declared a physical education teaching major but not certified to teach.

### Importance of the Study

In regards to physical education, the attention the past few decades have been on racial, gender, and sexual orientation equity (Sparkes, 1997; Squires & Sparks, 1996; Griffin, 1984; Griffin; 1985). But the field of wheelchair sports and wheelchair athletes is an unexplored area of research, even though wheelchair athletes originated in 1946. This study investigated the physical education teachers who teach and coach wheelchair athletes.

The results of this study can allow researchers to better understand how pre-service teachers view students with disabilities. This study examined the past experiences of pre-service physical education teacher and focus on how these past experiences impact the way they view students who use a wheelchair. By understanding student's perceptions, physical educators can build or construct knowledge in order to prepare effective and efficient teachers. One important

part of knowledge construction takes place in the teacher education programs (Rovegno, 1993; Rovegno, 2003).

Block and Obrusnikova (2007) stated that there has been an extensive body of research describing attitudes of general physical education teachers toward inclusion in general physical education. But perhaps we should turn our focus to how these attitudes can be changed. This research study attempted to identify the attitudes and perception of pre-service physical education teacher. After identifying these attitudes, the researcher examined if proper exposure can change these students perceptions.

## Literature Review

### *Perceptions of Teaching Physical Education to Students with Disabilities*

There has been a growth in research over the past decade regarding teachers' attitudes towards students with disabilities. It can be partially attributed to the increase in expectations for special education students to be educated in regular classrooms. The goal is to increase physical education teachers' perceptions and good attitudes towards the mentally and physically disabled students they teach. Hodge (1998) found that physical education teachers generally have a negative attitude towards students with special needs and towards inclusion. Interestingly more experienced teachers had more positive attitudes than those with less experience. The researchers sent letters to seven colleges to examine the attitudes towards special education students in physical education. The students who were physical education majors completed a survey at the beginning and at the end of the course. The survey used was the Physical Educators' Attitude Toward Teaching Individuals with Disabilities-III (PEATTID-III). A total of 195 surveys were returned to the researchers. The results showed that female students had more favorable attitudes than male students. Also, those students who had previous experience with

special education students had more positive attitudes. Attitudes did show change from beginning to end of the course. The researchers suggested that all colleges serving physical education students should offer similar courses.

There are many physical education teacher education (PETE) programs who expect teachers to be adequately prepared to teach students with disabilities after offering only one adapted physical education class (Hardin, 2005). Research has shown these experiences can improve physical education majors' attitudes towards teaching students with special needs (Rizzo & Vispoel, 1992), but many of those courses did not adequately teach pre-service teachers strategies to effectively teach this population of students (Hodge & Jansma, 2000; Hardin, 2005; Morley, Bailey, Tan, & Cooke, 2005).

Hodge and Jansma (2000) examined how different contextual factors affected 704 pre-service teachers' attitudes towards teaching students with disabilities. The results of the study showed that pre-service teachers with prior experiences as well as females showed more positive attitudes towards teaching students with special needs. This finding prompted the recommendation for PETE programs to employ strategies that provide pre-service teachers with instructional information on teaching students in an inclusive environment as well as an interactive experience of teaching students with disabilities (Hodge & Jansma, 2000).

Morley, Bailey, Tan, and Cooke (2005) found that most teachers in the study had no formal teacher training in teaching individuals with special needs, or at best that their training was "very limited" (p. 101). The participants perceive teacher training in the form of departmental in-services helped them learn more on how to teach this population of students, but did not take into consideration the area of physical education. This finding prompted the authors to posit that PETE programs should include information on teaching in an inclusive environment,

and provide hands-on experience for pre-service teachers as well as (Morley, Bailey, Tan & Cooke, 2005).

Hardin (2005) analyzed perceptions of five practicing physical education teachers of the adapted physical education curriculum in their respective PETE programs, and how their preparation programs affected their confidence and competence in teaching students with disabilities. All but one of the teachers had taken a course on adapted physical education in their PETE program. Teachers had received some hands-on experience during this course, but reported that it was their only experience during college course work teaching students with special needs. Teaching experience and learning from other teachers were the main sources of knowledge acquisition of teaching students with disabilities. The more time a physical education teacher spends teaching students with disabilities, the more confident and competent the teacher feels about his or her teaching. An interesting finding of this study was that most of the participants felt that their course in adapted physical education sufficiently prepared them for teaching students with disabilities, even though the majority did not get the hands-on experience (Hardin, 2005).

Kowalski and Rizzo (1996) examined the factors influencing pre-service student attitudes toward individuals with disabilities. They found that an infused approach, where disability topics and issues were interwoven throughout the entire physical education curriculum led to positive attitudes toward teaching and working with students with disabilities. They also found that academic preparation in adapted physical education was significantly related to teacher attitudes.

Rizzo, Bishop, and Tobar (1997) examined the attitudes of soccer coaches toward youth players with mild mental retardation. This study looked closely at the attitudes of coaches and how their attitudes impacted coaching students with mild mental retardation. One of the key

finding in this study was that coaches who perceived themselves as more competent had more favorable attitudes toward coaching students with mild mental retardation.

Perception is something which cannot be eliminated but can be discriminatory. The teacher's perception of teaching children with disabilities can have a direct impact on student achievement. Physical education teachers perception on what is effective learning can hinder or promote learning. Arrighi and Young (1987) found pre-service teachers perceptions of effective learning related more towards administrative or discipline oriented issues. This was a slight surprise because they put less emphasis on the actual content that was taught or the way the content was delivered. The finding highlighted the misconception that some pre-service teacher have of equating effective learning with effective management.

The teacher's perceptions of what they consider as successful teaching is also critical. Placek (1983) found that perceptions of successful teaching revolved around the participation and enjoyment of learning. Students whether they are able-bodied or in a wheelchair learn in physical education class when they are engaged and enjoy learning.

Teachers' expectations of teaching students in wheelchairs can have a direct correlation on the learning process for the student or students in a wheelchair. Trouilloud, Sarrazin, and Martinek (2002) demonstrated that students who were perceived by a teacher as doing well thought of themselves as good performer of a task or skill. Wilson (2006) investigated instructors' attitudes toward students and how this affected student motivation, performance, and attitude. Forty-four instructors and 1,572 students from a liberal arts department at one university participated in this study. This study showed students with motivation, positive attitudes, and performance levels were all derived from the instructors' attitude toward the particular student.

Researchers examined barriers perceived by teachers when including students with visual

impairments in general physical education class (Lieberman, Houston-Wilson, & Kozub, 2002). There were a total of 148 physical educators who filled out a survey prior to attending a workshop on including students with visual impairments. The number one barrier identified was lack of professional preparation. The researchers suggested that physical educators who plan the undergraduate curriculums need to take this type of information into consideration and plan courses of study to meet these obvious needs. Many of the participants stated they did not know what to do with student with disabilities in their classes.

Although teachers must assume a great deal of responsibility for student learning it is equally important of how students feel towards learning. The students' perception of the physical education class can have a direct impact on the program's efficiency. Students must be actively involved and their perceptions of their involvement can increase learning. Jackson (1992) stated a better understanding of students' attitudes and beliefs about physical education can greatly influence teacher effectiveness and program design.

Students' attitude or perceptions of learning has been thought of as being the most important tool for pupil learning. Schuell (1986) showed that what the student does is a more important determinant in the learning process than what the teacher does. There are many ideas on what increases or warrants the learning process.

The perceptions of the teachers are important but the viewpoints of the students are just as essential. The process of learning has to include a teacher or instructor and the learner or student. Learning is a process that takes place when the learner is actively involved in the process (Solmon & Boone, 1993). It is important when discussing the learning process of students to remember that students know how they would like to learn or which activities appeal to their intellectual appetite.

Some researchers believe it is important to know how teachers felt about teaching special education students, including their personal attitudes towards people with disabilities (Brady & Woolfson, 2008). The researchers wanted to see if teachers understood their roles in the students' learning process. They randomly chose 118 elementary school teachers to complete two measurement scales: the Teachers' Sense of Efficacy Scale and the Interaction with Disabled Persons Scale. The elementary school teachers consisted of regular classroom teachers as well as special education teachers. It was found that teachers with different roles had different attitudes about special education students. However, there was a general sense of sympathy for disabled persons. It was suggested, by the researchers, that teachers receive more training on identifying a student's weakness and targeting that weakness to change it into a strength.

Rizzo and Vispoel (1991) attempted to discern the relationship that physical education teachers have towards students with physical and mental disabilities. They collected data by using a test called the Attitude toward Teaching the Handicapped-II instrument. The study found that physical education teachers generally have a better attitude towards students who are learning disabled over students who are mentally retarded or physically disabled. Furthermore, it was discovered that women had more favorable attitudes towards these students than men, and younger teachers had better attitudes than older ones. Also, teachers who felt more competent in their teaching field had more agreeable attitudes than teachers who seemed to be less competent. The authors of the study suggested that schools should take responsibility for these attitudes, and provide necessary professional development for these physical education teachers so they can gain a better understanding of teaching the special education students. Another suggestion was that schools who train pre-service physical education teachers should do more in preparing their students to teach special education students in the physical education setting.

Rizzo and Vispoel (1992) examined and analyzed two undergraduate college courses on teaching physical education to students with disabilities to determine whether or not students' perceptions changed over time. The students were divided into two groups. One group was enrolled in a course that taught adaptations for special education students. The other group was enrolled in a general physical education course. The results showed that the attitudes of those enrolled in the adaptive course had increases in positive behavior towards special education students. The results showed that one course seemed beneficial to changing students' attitudes, while the other course had no effect. The researchers provided four strategies for improving teacher-student attitudes: information, direct contact with people with handicaps, persuasion, and vicarious experience.

Researchers conducted a study to determine what influenced pre-service teachers in how they felt about students with disabilities (Kowalski & Rizzo, 1996). The study distinguished among gender, age, level of college student, including the number of physical education courses completed, and attitudes towards either teaching or working with students with mental or physical disabilities. All students attended college at a single university in the United States. The instrument used to conduct the research was the Physical Educators' Attitude Toward Teaching Individuals with Disabilities (PEATID-III) survey. The factor that best predicted a pre-service teacher's attitude towards special education students was their perceived competence in teaching/working with individuals with disabilities. The researchers discovered that the college students had more favorable attitudes towards younger special education students than older ones. Also, pre-service teachers who had more coursework in teaching special education students had better attitudes than those with less courses. The majority of the students reported that they felt "somewhat competent" with working with special education students. The more confident

they were, the more competent they perceived themselves to be. In conclusion, the authors presented several ideas, one being that pre-service teachers go through attitude-changing courses that should be followed longitudinally.

### *Field Experiences of Pre-service Teachers*

One of the major influences on the way teacher education programs prepare teachers is the National Council for Accreditation of Teacher Education (NCATE). All fifty states have teacher education programs and over two-thirds of newly licensed teacher are graduates from NCATE-approved teacher education programs (Bulter, 2006). Currently NCATE requires that all teacher education programs provide outcome-based evidence that candidates have in fact acquired the knowledge, skills, and dispositions need to become effective teachers.

Teachers who have experience working with students with disabilities seem to have significantly more positive attitudes than teachers with less experience (Block & Rizzo, 1995; Kozub & Porretta, 1998). Quality of teaching experience and course work in adapted physical educators were strongly related to attitudes toward teaching students with severe disabilities (Block & Rizzo, 1995). The experiences that pre-service teachers have during their field experience can shape the attitudes or perceptions of these teachers. Ross (1990) suggested field experiences have a significant impact on teacher learning. Other researchers have suggested that field experience does not alter the way teachers teach because good teachers will continue to teach the way they were taught to teach despite the experiences involved in their field experience (Lawson, 1983).

Field experiences are an important component in the teacher education programs. The National Association of Sports and Physical Education (2003) (NASPE) recommends that nearly all physical education teacher education programs include some type of field experience.

Researchers' state there is no substitute for spending time with real children, in real schools, with real teachers (Graham, Hopple, Manross, & Sitzman, 1993).

O'Sullivan and Tsangaridou (1992) examined what pre-service physical education teachers learn during a field experience. The study concluded that teaching in a naturalistic setting can increase the chances of producing teacher effectiveness in a learning setting and pupil learning. This is evident that proper exposure of pre-service teachers in their field of study can improve the chances of making them more effective teachers. Yet another important finding of this study was an early, well-constructed field experience gives the teachers practical opportunities for better understanding of teaching and schooling, and the role of the professional teacher in the education of students.

#### *Adapted Physical Education and Adapted Sports*

Sherrill (1998) defined disability sport as a continuum of developmental and competitive, mainstreamed, and or disability-specific sport opportunities for individuals with disabilities. Whenever there is talk about a person with a disability, it insinuates a person who is in an undesirable state or a person who was involved in a terrible life tragedy.

Modell (2007) investigated student's perceptions about sports for person with disabilities. Most of the students had a general idea on how to define disability sports but 38% knew the difference between Paralympics and Special Olympics. The results showed that most of the students had a positive attitude toward athletes with a disability. The results also showed 51% of the students stated that they would compete with the same intensity level with disabled athletes as with able-bodied athletes.

Megginson and Lavay (2001) questioned whether adapted physical educators felt competent in providing disability sport and whether they lacked some skills and knowledge to

effectively administer appropriate services. The researchers administered the disability sport competence scale (DSCS) to the 208 subjects who were attending regional conferences on adapted physical activity or enrolled in university training program. Ninety percent of the participants stated they needed to receive more training for teaching adapted sports.

### *Constructivist Theory*

This research study uses the constructivist theory in its approach. According to Peavy (1996), constructivist theory is a theory that is based on a philosophical framework, and constructivist career counseling has a few basic tenets that are used to guide practice. One of the tenets is that there are many realities; therefore, these realities have multiple meanings to each person's views of a situation and they create their own meaning through these realities.

Another perspective on the constructivist theory includes the following characteristics: 1) individuals actively construct their own meaning; 2) meaning making takes place as learners attempt to link present with past experiences and knowledge; and 3) although idiosyncratic by nature, meaning making is socially, culturally, and temporarily bound (Chen & Rovegno, 2000). It is important to understand that teachers construct knowledge over time and with experience (Rovegno, 2003). Research showed that the teacher's past experiences helped to adequately prepare them to construct the appropriate knowledge and skills to teach students (Rovegno, 2003).

We must understand that all experiences impact the perceptions of teachers. Essentially, constructivist theory looks at the complete view and takes into account all aspects of an individual's life and how this can impact career development. Peavy (1996) stated that finding meaningful work is related to the idea that constructivism emphasizes about creating meaning from personal experiences.

## CHAPTER II: METHODOLOGY

Physical Education Teacher Education (PETE) programs that address diversity can have a positive effect on pre-service teachers' attitudes and use of culturally sensitive pedagogy. (Hardin, 2005; Hodge, 2003). In this research study, the attitudes and perception of pre-service physical education teachers toward students who are in wheelchairs will be examined. In this chapter, the following information is presented: (1) participants, (2) instrumentation, (3) data collection and interview procedures.

### Role of Researcher

The researcher of this study has an athletic background, coaching and playing. The researcher of this study is a person who does not use a wheelchair for daily ambulation. The researcher has taken two adaptive physical education courses through professional training teacher education programs. These two courses were taken at two different universities, and the researcher is a certified physical education teacher. During the researchers' undergraduate program, one adaptive physical education class was taken. The adapted class included no field experiences and no adapted student teaching opportunities; it was based only in lecture materials. During the course of the doctoral program, the researcher was engaged in hands-on adaptive physical education program. This was the first time the researcher had any experiences working with students in a wheelchair.

Table 1 Participant's Background

Name	Gender	Classification	Prior experiences with a student with a disability	Prior experiences with a student in a wheelchair
Josh	Male	Junior	Yes	No
Stephanie	Female	Senior	No	No
Mary Virginia	Female	Graduate	No	No
Isabella	Female	Senior	Yes	No
Kraemer	Male	Senior	Yes	No
Jason	Male	Junior	Yes	No

### Participants

Participants for this study consisted of six pre-service physical education teachers enrolled in a physical education methods course at a four-year university located in West Alabama for the 2011 spring semester. One male and one female identified themselves as African American and two males and two females identified themselves as Caucasian. Five students were of junior status while one was a graduate student but none of the participants held an Alabama certification in physical education. None of the participants had enrolled in an undergraduate adapted physical education course. All the participants were accepted in the physical education teacher education program and were entering the second semester of the physical education teacher education program.

The University that this researcher study was performed does offer a wheelchair athletics program. The founder and director along with coaches are all directly responsible for teaching and training pre-service teachers. This could have a direct impact on the participants' perceptions

of wheelchair athletics and students who use a wheelchair. The participants were taught by three professors who use a wheelchair in two different courses during their physical education teacher education program. Pseudonyms were used to help keep the identity of each participant protected.

### *Isabella*

Isabella is a student who was born and raised only minutes from the University she attends. Isabella is a Caucasian female who is enrolled in the University as a senior. Isabella has limited interactions working with children who have a disability. The experience that she does have comes from helping out with her mother's daycare service. She has served as a gymnastics instructor for several years. She stated that it is her experience with her mother's daycare and gymnastics that has inspired her to want to become a physical education teacher. While instructing gymnastics, she has encountered one student who had a physical disability. She has no prior experiences working with or interacting with a student in a wheelchair.

### *Mary Virginia*

Mary Virginia was born and raised in the same city as the university she attends. Mary Virginia is a Caucasian female and the only graduate student in this research study. Mary Virginia obtained a bachelor's degree in a non-teaching field and does not have a teaching certification. Through her first bachelor's degree program she had a few clinical experiences working with students who have disabilities at a local school for students with disabilities. These experiences were done through the professional studies of her first undergraduate degree, but these experiences were observation only and required no teaching or instructing on her behalf. She has been around students who use a wheelchair but she was not directly responsible for teaching or instructing them.

### *Jason*

Jason Jones is an African-American male student who is enrolled in the university as a junior. Jason was born in a small community nearly 60 miles from the university. Jason has no experience or exposure with any student with disabilities expect for a course-embedded experiences the previous semester. Jason volunteered as an assistant basketball coach at one of the area schools. He instructed as student with attention deficient disorder (ADD) through his clinical field experiences the prior semester. This was his only experience with teaching or instructing a student. Jason has had no experiences working with or teaching a student in a wheelchair.

### *Josh*

Josh was born in a neighboring county from the university he attended. Josh is a Caucasian male and enrolled as a junior at the university. Josh has little formal experience working with children. He has some interaction with children through his mother's daycare but he was never responsible for teaching or instructing any of them. He has helped at one of the local schools for children with disabilities but the children were not of school age and he was not required to teach them any skills or knowledge. Josh was also inspired to be a teacher through his experiences with his mother's daycare center.

### *Kraemer*

Kraemer is a Caucasian male and the only participant in this study who was born outside of the state of the university he attends. Kraemer has limited experiences working with children. Kraemer first got his exposure to working with children when he worked for Boy Scouts of America. He also has little exposure instructing students with disabilities but none of these experiences have been with a student in a wheelchair. Kraemer also have instructed swimming

lessons at a recreation center.

### *Stephanie*

Stephanie is an African-American female participant who is enrolled at the university as a senior. She grew up about 100 miles from the University she attends. Her experiences working with children have been limited to assisting with summer camps where she served as an instructor. None of her experiences have been with students who have a disability. She has been enrolled in one clinical experience course where she taught students at a elementary and middle school.

### Setting

The university consisted of approximately 31,000 students in undergraduate and graduate, on-campus and on-line students. Of the 31,000 students the breakdown was: 23,702 students were of the undergraduate status with 2,906 being in education. The demographics are about 81.5% Caucasian, 11.7% African American, and with the remaining percent in other ethnic background.

The U.S. Census' most up-to-date information reported the population of the city was 77,906. The ethnicity of the community is 54% Caucasian, 42% African American, and the remaining percent in other groups. The average income is \$41,753.

### Instrument

The researcher created questions that were asked to each participate during the formal interview in order to understand each participant's prior knowledge or interaction with a person in a wheelchair. The second interview was conducted after each participant has attended a practice, a game, and watched the documentary film. All participates were asked the same

questions during both formal interviews. The questions were created by the researcher to fit this study specifically.

#### Formal Interviews

A formal interview was conducted prior to the participants' engagement with any of the wheelchair athletes. The purpose of this interview was to gain knowledge into the participants' perceptions of teaching a student in a wheelchair and how they feel they were prepared to teach them. A second formal interview was done after attending a wheelchair game, a wheelchair practice, and watching a documentary film. This was to ascertain the participants' perceptions of a person in a wheelchair. Both of these interviews lasted approximately 30 to 45 minutes and each were taped, recorded, and transcribed verbatim.

#### Informal Interviews

In addition to formal interview, informal interviews were conducted whenever appropriate by the researcher. Informal interviews were conducted following each practice, game, or film. The questions asked during this time were relevant to how the participants thought, interacted, or general responses following the event.

#### Focus Groups

In addition to formal interview, focus groups were conducted whenever appropriate by the researcher. The focus group method is a technique of group interview that generates data through the opinions expressed by participants individually and collectively (Kitzinger 1995). Focus groups were conducted following each practice, game, or film for a total of three different occasions. The six participants were divided into two groups of three people. The questions asked during this time were relevant to how the participants thought, interacted, or general responses following the event.

### Critical Incidents

Flanagan's (1954) technique of critical incidents was used to collect appropriate daily events that may have contributed to a more precise understanding of the participant's perception, teaching style, or overall knowledge of a person who uses a wheelchair. The critical incidents were recorded by the participants following attending a practice, game, and observing the documentary film. The participants were asked, to write on their most meaningful experience in observing the athletes wheelchairs and why? Hastie and Curtner-Smith (2006) stated that this technique has been used to gain perceptions of the most meaningful experience during physical education classes.

### Direct Observation

The researcher used direct observation on each of the participants as they were engaged in practices, game, and documentary film. The researcher took detailed field notes of the participants, observing their reaction, thoughts, and overall demeanor during the participants' watching game and practice.

This documentary film, "Murderball", was chosen because it follows the professional and private lives of the 2004 United States wheelchair rugby team. Murderball is a highly engaging, informative look at the lives of a group of quadriplegic men who are also elite athletes. The sport of murderball combines basketball, hockey, and rugby. It is played in custom-built wheelchairs with angled, shield like metal side plates that make the chairs look like chariots. The name has been changed from murderball to wheelchair rugby to make the sport less offensive.

### Techniques for Data Analysis

The purpose of this analysis was to identify the perceptions of pre-service teachers toward students who use a wheelchair. Data was gathered through a variety of sources including

two formal interviews, three informal interviews, and direct observation while participants observe a practice, game, and documentary film. Critical incidents were gathered to help to get a better understanding and identify the participants' perceptions of teaching students in a wheelchair. The following steps were followed for the coding frame (Ritchie, Spencer, & O'Conner, 2003):

1. Once all formal interviews, informal interviews, observations, and critical incidents were collected, the data and transcriptions were read in their entirety;
2. Once documents were read, then they were split into phrases;
3. Phrases which have similar meaning were grouped together and themes were assigned to these groups;
4. The transcripts, field notes from the observation and focus group, and critical incidents were then reviewed for a number of times to properly identify themes or categories; and
5. As this process continued, new themes arrived if they did not fit a theme or category which has already been identified.

The researcher then triangulated data between the different sources to find which ones have correlations. The data was read through its entirety. Upon reading the data, themes began to become apparent and data was put into groups. If new data did not fit a group or category then a new category was created. The categories were then reviewed to see were the categories persistent throughout the study. For a theme to be formed all participants had to provide some data supporting the theme and each participant had to provide data through at least three different data sources. After the final categories were justified, member checks were used to help validate that the data collected was true and accurate views of the participants' perceptions.

## CHAPTER III:

### RESULTS

This research study used the following data sources: two formal interviews, four informal interviews, two different focus groups interviews, and three critical incidents. All formal interviews and focus groups interviews were audiotaped. Critical incidents were recorded by the participants following the wheelchair basketball game, wheelchair basketball practice, and documentary film. The informal interviews were done whenever clarity was needed or whenever the researcher wanted the participants to elaborate on a subject. The information that was composed from these data sources showed the emergent of six themes, based on the perceptions of the six pre-service physical education teachers. As each theme was identified, it was cross-referenced with other data sources to ensure the trustworthiness of each theme. The themes were also checked by the participants and they were given the opportunity to give feedback, clarify information and add any remarks.

The findings of this research study are summarized into six main themes: 1) self-confidence is key to success; 2) modification provides opportunity; 3) experience is essential to competence; 4) different but equal; 5) ability levels of athletes; and 6) wheelchair athletic intensity. The six themes emerged from a variety of data sources from all six participants.

#### Self Confidence Is Key to Success

Participants in this research study constantly made reference to the importance of students in a wheelchair confidence levels. The participants all agreed that the self-confidence of

the participants was a critical first step to teaching or coaching a student in a wheelchair just as previous research had found (Troulloud, Sarrazin, & Martinek, 2002). The pre-service physical education teachers made reference to confidence before, during, and after experiences.

Before each of the participants was exposed to any experiences, they seemed to have a belief that a student in a wheelchair should have self-confidence, in their own abilities. When asked about their beliefs on knowledge, skills, or concepts Isabella stated, “they need to understand that they can do something if they put their minds to it” (Formal Interview 1, Isabella, 02/02/2011). While Jason spoke on his core beliefs about teaching a student who may have a disability, he stated, “to build confidence, that is my main thing to build confidence to get them [students] to believe in themselves and it can last a lifetime” (Formal Interview 1, Jason, 02/02/2011). Stephanie stated, “I guess it will have to be confidence. You don’t want anybody to have low self-esteem and confidence because it can lead to a lot of problems” (Formal Interview 1, Stephanie, 02/04/2011). Stephanie’s perception seemed to be that before she was able to teach a student in a wheelchair, it was important to have an understanding of the student’s confidence level. She went on to state that it’s confidence that serves as the ground for achieving success in physical education. While Mary Virginia added,

I want them to learn that just because they have exceptionality doesn’t mean that they can’t go and be physically active just like everyone that might not have exceptionality. You know whether it’s a sport or an individual activity, I want them to know that they can find a way...learn in a way that’s best for them. (Formal Interview 1, Mary Virginia, 02/02/2011)

Kraemer also seemed to share the same perspective as Stephanie on this particular concept. Kraemer responded to the same question stating,

I would say the biggest thing that they need to learn from me is to believe in themselves and don’t doubt your own abilities before you try, just because you are in a wheelchair . . . they need to just be themselves don’t think what other people think about you. I just

want to build confidence for students in wheelchairs. (Formal Interview 1, Kraemer, 02/04/2011)

Mary Virginia's perception also seemed the same as the other participants in that it was equally as important that the teacher must have confidence in their teaching styles and their students. Mary Virginia stated,

When it comes to a teacher...I want to make sure they [teachers] know that they [the students] can do it as well. We [teachers] can find a way to make a certain activity happen for students in a wheelchair if we believe and understand that we can. (Formal Interview 1, Mary Virginia, 02/02/2011)

Mary Virginia's perception was that it was important that the student have a degree of confidence in their teacher. When she was asked, what her goals for adapted physical education were, she responded,

My goal is to try to get to know every particular student as best as I can. I want to know what their capabilities are, know what they can do, know what they can't do, and maybe even know what makes them feel uncomfortable with me so I can help them to form a connection and relationship with me. (Formal Interview 1, 02/04/2011)

Jason was asked what are his goals for an adapted physical education class, and the same concept seem to arise. Jason said,

...like I say it's about confidence getting them to believe mentally that they can do whatever it is they want to do. Just getting them to know that no matter what their doing believe in it and they can accomplish what they are trying to accomplish. (Formal Interview 1, Jason, 02/02/2011)

Initially the participants seemed to be persistent in their perceptions on making sure all of their students believe in themselves. Their perceptions seemed to be that before anything can happen in an adapted physical education class, all students must have the confidence to know that they can succeed.

After the pre-service teachers were interviewed initially, they began the process of being exposed to students and athletes who use a wheelchair by attending a wheelchair basketball practice, a wheelchair basketball game, and watching the movie *Murderball*. It was interesting

to see how the participants still spoke of confidence being key – but also how surprised they were of the level of confidence and competence present in the wheelchair athletes that they observed. Josh wrote, “It was crazy good, the talent out there on the court. They seem to understand and trust each other’s ability. You can tell they know how good they are” (Critical Incident 1, Josh, 02/05/2011). Josh was asked to further explain “they know how good they are” and he stated, “I mean they have confidence not only in themselves but in their teammates. To me it was just unbelievable; I had no idea that those guys had egos just like normal basketball” (Josh, Informal Interview 1, 02/08/2011).

Kraemer spoke on the confidence level that the athletes have in their abilities while playing the game of basketball. Kraemer wrote, “Unbelievable, I had no idea. I mean it just like a real basketball game. I didn’t think they could shoot so well but they don’t lack any confidence in their shots” (Critical Incident 1, Kraemer, 02/05/2011). Kraemer’s perceptions were that the players seemed to have self-confidence in their ability levels. The players, from Kraemer’s point of view, believed that they can accomplish task. Jason’s perception seemed similar as he wrote, “It was just amazing to me. The players and coaches just all seem to know and understand what they were try to accomplish. They just seem to believe and trust each other” (Critical Incident 2, Jason, 02/08/2011).

Mary Virginia discussed her perceptions of one of the particular athlete’s in a wheelchair’s confidence level in his own abilities. Mary Virginia wrote,

I just can’t believe that guy. I mean he has no arms or legs but it doesn’t stop him from playing and practicing just as hard as the others on the team. I mean he definitely knows what he is capable of doing. (Critical Incident 2, Mary Virginia, 02/08/2011)

Mary Virginia was asked to explain this statement of what she means by he definitely knows what he is capable of doing. She stated,

I mean he understands his self. He might know what he can or can't do well. He knows he has no arms and he knows he has no legs but he has found what he does best. He understands that I might not be able to do this task or that task but I have learned that I can do this task well. So over time you can tell he has that confidence or belief that yes I can. I'm not saying that he has never had that confidence because he could have always believed in himself but I am just saying you can tell now that he does believe that he can do certain things on the court very well. (Informal Interview 1, Mary Virginia, 02/10/2011)

Mary Virginia put clarity in her writing by explaining her perceptions of athletes in a wheelchair. Her perceptions seem to be if it was not for the confidence that he had in himself then it would be impossible for him to be successful.

While Isabella observed her first wheelchair basketball practice, she wrote, "The guys can get up on their own without any help. They fall over and simply pick themselves back up. That is amazing to me the confidence that they have in their strength to just hop back up" (Critical Incident 2, Isabella, 02/08/2011). Isabella believed that the athletes being able to pick themselves up off the floor is meaningful. When Isabella was asked, why she wrote this as being meaningful she stated,

Just know that they know I can do this. I know its small but they just are like, I don't need any help to get up I know can do this on my own. They get up almost without thinking about it. (Informal Interview 1, Isabella, 02/08/2011)

Isabella believed that the confidence level the athletes have shown has become second nature to them. She stated that they know what they are capable of doing without even giving thought to it.

Once all participants had been exposed to the wheelchair basketball game, a wheelchair basketball practice, and observed a wheelchair documentary film, each of the participants continued to refer back to the same theme as they did before any of the experiences, but with an altered view of the abilities of students with disabilities. After viewing the documentary film, Isabella stated,

I can't do anything at first so they [athletes in a wheelchair] have to get it in their minds that they can, they just have to learn how again so it takes time. I think he [an athlete in a wheelchair from the movie] said two years or something to really learn how to function normally I guess they just have to have the willpower or confidence to do so. (Focus Group 1, Isabella, 2/18/2011)

Isabella stated that the student or person in a wheelchair will initially have to overcome the shock of being confined to wheelchair; in order for an individual to progress out of this stage, they must have the confidence or willpower to do so. But she believes that once they have this confidence, they can do the unthinkable, she said, "That one guy he doesn't have hands but he's like in there doing everything that everybody [other athletes in wheelchair with hands] is. To me that just shows where his willpower and if you want something..." (Focus Group 2, Isabella, 02/28/2011).

She also wrote,

I love the comment that "the mind is the biggest disability," if they have it in their mind that they can't do it, they never will be able to do anything. Once they overcome the initial mindset of being in a wheelchair. They learn and began to be comfortable with their abilities. It is then, when this mindset is established, that the athletes or students can do anything. (Critical Incident 3, Isabella, 02/18/2011)

Josh reflected on his experiences and wrote, "From the movie to wheelchair basketball it seems that the athlete's success starts with self. Before they are able to perform any of the skills I have seen them perform they must first believe it can be done and they can do it. After this is done, the rest is learning just like anybody else has to learn" (Critical Incident 3, Josh, 02/18/2011). Josh's word seemed to echo those of his peers. He does not seem to see the students' or athletes' natural ability or disability as being the problem but instead it is their mindset that serves as the biggest obstacle to overcome. Stephanie wrote, "I have to say I was a bit surprised with the rugby teams and wheelchair basketball teams. Both teams seem to really

sell out to what they are trying to accomplish as a team or individually” (Critical Incident 3, Stephanie, 02/19/2011).

Stephanie was asked to explain what does she means by “sell out” and she stated,

When I say sell out I mean believing in what they are doing. They first believe that what their goals are can be accomplished then they believe that they can in fact accomplish the goals which have been set. It just starts on a personal level. (Informal Interview 2, Stephanie, 02/21/2011)

Each of the participants was asked individually how they can apply this concept, the idea that confidence is important, into their teaching?

Josh stated, “I know that it starts with them” (Informal Interview 3, Josh, 02/21/2011).

Kraemer stated,

I know that in order for me to reach my students my students must first want to be reached. They must believe that they can achieve whatever it is I am trying to teach them. If they don’t believe it can be done my job as a teacher is becomes very difficult and could in some cases become impossible. (Informal Interview 3, Kraemer, 02/21/2011)

Mary Virginia stated,

I understand that it is important for me to understand all of my students. Before I am able to successfully teach them, I must understand them. In the beginning of my classes I must try to understand the confidence level of my students because if this confidence doesn’t exist it will be much harder to teach them successfully. (Informal Interview 3, Mary Virginia, 02/21/2011)

Jason stated,

I just know they have to have that confidence. You know that desire that he can be done. If that confidence is missing then I need to try to help them get confidence in themselves. That can help them last a lifetime after I have taught them. (Informal Interview 3, Jason, 03/21/2011)

Stephanie said,

I can’t really teach them some skills unless they believe they can do the skills. Everybody can’t do everything but all of them can do a lot of things if they believe they can. (Informal Interview 3, Stephanie, 03/21/2011)

While Isabella stated,

All students can learn and do many things. I mean I truly believe that all my students can and will learn. All I need from them is to trust in their own abilities and I will teach them how to do the rest. (Informal Interview 3, Isabella, 03/21/2011)

Confidence was a theme which emerged from all of the participants and continued to be echoed throughout the entire study. Each of them seemed to associate successfully teaching a student in a wheelchair with the student's confidence level. The idea seemed to be that before anybody can accomplish a skill or task he or she must believe the task or skill can in fact be accomplished. Jason put this into words the best, "I see a high level of confidence, motivation, and self-determination in the wheelchair athletes that has led them to a high level of success" (Critical Incident 3, Jason, 02/18/2011).

#### Modification Provides Opportunity

The second theme to emerge in this research study was proper modification. The participants in this study all seemed to stress the importance of proper modification. Modifications were constantly being discussed before, during, and after participants were exposed to wheelchair athletes.

Before the participants were exposed to wheelchair athletics, they seemed to believe that any task can be accomplished with the proper modification but it is the responsibility of the teacher to make such adjustments. When Stephanie was asked what she thought a person in a wheelchair should do in a physical education class, she said, "I mean they can do whatever they are capable you should not include them just because they are in a wheelchair. I will just make modification but they can pretty much do anything" (Formal Interview 1, Stephanie, 02/04/2011). Stephanie believed that it is the duty of the teacher to make sure all student accommodations are met successfully through proper modifications. Stephanie was asked the question, do you think there are limitations to what they can do. She stated, "There may be

limitations but like I said earlier you [teacher] just need to modify the activities” (Formal Interview 1, Stephanie, 02/04/2011). She believed that anything can be done with the proper modification of the skill. She stated it might be modifying the equipment, modifying the field, or modifying the rules some but the skills can be accomplished.

Josh was asked the question, can students in a wheelchair possess the proper skills to become engaged in team sports. He responded, “Absolutely what I mean is you [teacher] can modify any game it’s like with the game (wheelchair basketball), just because you can’t walk doesn’t mean you can’t shoot” (Formal Interview 1, Josh, 02/04/2011). Josh believed that any skill can be accomplished with the proper modifications. He stated that you should not use your disability as an excuse of why something cannot be accomplished by a person in a wheelchair. But instead, think of alternatives to help an individual in a wheelchair accomplish the same task just through proper modifications. While Kraemer stated, “Students in wheelchairs can do anything with the teacher making whatever modifications that are needed to be made for the student to be fully included in class” (Formal Interview 1, Kraemer, 02/04/2011). Kraemer stated that in order to include all students into a physical education class, proper modification must be made for students in a wheelchair.

Kraemer was also asked, do you feel students in a wheelchair should be included in a regular physical education classroom. He responded,

Absolutely, as long as the teacher takes the proper steps or makes the proper modification without a doubt I think students in wheelchairs should be included in a original physical education class. We [class] actually seen a student in a wheelchair and he was included just like everybody else. It all falls back on the teacher being able to make the right modifications for the student... (Formal Interview 1, Kraemer, 02/04/2011)

Kraemer was sound in his perception that students who use a wheelchair can participate in all aspects of a physical education class but the ultimate responsibility falls on the teacher in making

proper modifications. He even stated that he feels as if they (students who use a wheelchair) can be just as successful just as long as the proper modifications are being made for them. “Putting them in a regular physical education class helps them be better prepared for the real world” (Informal Interview 3, Jason, 02/21/2011). One of the participants stated, “I cannot imagine dis-including a person in a wheelchair” (Critical Incident 1, Kramer, 02/08/2011). Mary Virginia was quick to reflect on one of her experience which helped her with modifications, as she stated,

I would like to take a class specifically where you [pre-service teachers] learn about how to adapt and modify for people with disabilities like the wheelchair for example, we [class] got to be in the wheelchair that was a real good experience. It helps you to know how people in wheelchairs are doing things...I put myself in their shoes so I had to do it their way it helped me to learn and understand a good way to modify. (Formal Interview 1, Mary Virginia, 02/04/2011)

While most of the participants talked about modifications from the teacher’s perspective, Isabella talked about student modification as well. Isabella stated,

They [students in a wheelchair] need to learn how to adapt to things in their capabilities. If you play soccer they can’t dribble with their feet so let them use their hands. ...asking how can I make it work for people in a wheelchair so they can play as well and not just sit on the sideline. (Formal Interview 1, Isabella, 02/04/2011)

Jason also discussed how proper modification aids in learning. Jason stated,

I think students in a wheelchair should be included in a regular physical education class. They can do all the things that the other students do but you might have to make some changes in how they do it. You might have to change the way teams are made up, you might have to change equipment but they can do everything that normal students can do. (Formal Interview 1, Jason, 02/04/2011)

Before the participants were engaged or exposed to any of the three experiences, they believed that modifications must be made to assist in learning. Once the appropriate modifications are made, the student who uses a wheelchair can perform a lot of the same task as the other students in a class. This perception did not seem to vanish during the duration of this study but instead their beliefs seemed to strengthen as the participants became exposed to the various experiences.

As the participants of this study began to be exposed to wheelchair athletics, they began to point out modifications they observed. Isabella wrote,

It is amazing to me how they shoot so well from a sitting position. I know I could not do it. Somewhere along the way somebody had to help them with different techniques. I mean while the game was just as fun as a regular basketball game there are some obvious changes that had to be made; Whether it was coaches, parents, or other players somebody had to show them how to make certain adaptations to their game. (Critical Incident 1, Isabella, 02/04/2011)

Isabella seemed to agree with the other participants' perceptions that students in wheelchairs can be involved just like any other student just as long as the teacher is willing to make to appropriate modifications. But Isabella also stated, "Don't treat them any differently because they [students or athletes in a wheelchair] will make modifications, we [teachers and coaches] will make modification to what they [students in a wheelchair] are doing" (Focus Group 1, Isabella, 02/08/2011). Stephanie had the same perspective. She said, "I agree with all of that. The students must make certain modifications along with the teacher making certain medication. I just think both have to do their part" (Focus Group 1, Stephanie, 02/08/2011).

Stephanie continued throughout this study to give the coaches some credit for assisting in the modification process. Stephanie wrote,

I enjoyed watching the film. The sport was kind of like football except in chairs. I noticed how the coach was very interactive with the players. The players used different chairs than regular basketball; they also seem to use more body movement in the chairs. It's like they were taught to bend or move this way and that way. This could have been something taught by coaches to help them adapt to different aspect of the game. (Critical Incident 3, Stephanie, 02/18/2011)

Mary Virginia also seemed convinced that this is important for student's success in wheelchair athletes and physical education. Mary Virginia stated, "We [teachers and coaches] just need to set boundaries for them [student or athletes in a wheelchair]" (Focus Group 1, Mary Virginia, 02/08/2011). Her perception seemed to be in consensus with the other participants that teachers

and students must make certain modifications. While she had the perception that it is the teacher's responsibility to set boundaries within these modifications. She explained this is because of safety liability. Teachers must understand that sometimes students will be put into situations that can be dangerous. Jason wrote,

The students practiced real well. I mean they go over a lot of things that help them in game situations. The coach is constantly reminding them to remember so move this way or that way. The athletes make the adaptations and you can see them perform the skill better. (Critical Incident 1, Jason, 02/08/2011)

Jason also said, "The coach really does his job. It is the coach's responsibility to help the athlete make the correct changes to improve his game" (Informal Interview 1, Jason 02/08/2011).

Jason stated that it was the duty of the coach to aid in this modification process. He stated that the students or athletes in wheelchairs have the ability to perform a lot of the skills required to play basketball but the coach must inform or guide them in making the proper modifications. Josh wrote, "I like watching the practice. I especially like how the coach advises them on the ways of using their chairs" (Critical Incident 1, Josh, 02/08/2011).

Josh was asked to help clarify what he means by advises, he said,

The coach pretty much showed them or told them how to make certain adaptations in the chairs to help them make a move better. They knew how to do a move or run a play and to me it looked fine but after he told them try this instead you could see the move did in fact look better. He basically just modified whatever it was he was talking about. (Informal Interview 1, Josh, 02/10/2011)

Josh's stated that a lot of the success which the student athletes have is because of the coaches' abilities to advise his students on proper modifications.

After the participants had been exposed to all of the experiences in this research study, they were asked individually, what modifications are important to coaching students who use a wheelchair? Jason said, "I mean it's the coach's job to do it. The success of the program and the students depend on the coach being able to make the appropriate modifications" (Informal

Interview 3, Jason, 02/21/2011). Isabella said, “The coach is what they are depending on. If the coach can’t show the students-athletes how to properly make modifications then the program itself will suffer” (Informal Interview 3, Isabella, 02/21/2011). Stephanie said, “The coach has to make some changes. All the changes might not be the same for everyone but there will have to be something that just needs to be changed to help the students perform better.” (Informal Interview 3, Stephanie, 02/21/2011). Mary Virginia stated,

Modification is the key to success for students who use a wheelchair or have any other type of disability. If the coach wants to have success then he or she must make modifications. (Informal Interview 3, Mary Virginia, 03/21/2011)

Kraemer stated,

I think it is important for a coach to make proper modification because the athletes in a wheelchair are depending on him to do so. If the coach fails to make the right adaptations then there is no way the athletes can be successful. I know that some of the athletes will know how to make certain modifications because they either taught themselves or someone from their past has taught them. But you as a coach can’t assume that all students will come into your program knowing this on their own. Even if they did have a lot of knowledge, I am sure that there is something that can be taught to them. I just don’t see how anyone can be successful with wheelchair athletes or students without making proper adaptations to the game, or skills, or techniques or maybe even equipment but some adaptation will have to be made. (Informal Interview 3, Kraemer, 02/21/2011)

The participants’ perceptions were that modifications just made sense to each of them.

Josh said, “It just makes sense. If you want a student in a wheelchair or any other disability to be successful then you have to make certain adaptation for them” (Informal Interview 3, Josh, 02/21/2011).

Stephanie stated, “It’s easy to modify activities just so they [students in a wheelchair] can participate it’s just really not that hard. You [teachers] just have to learn the abilities of the students that are what is important” (Formal Interview 1, Stephanie, 02/04/2011). She did not perceive making modification as a challenge but simply a choice. Stephanie stated that it does not take much effort from teachers to make the correct modifications for their students. While

Mary Virginia said, “There are a lot of things or reasons a person might need extra help or adaptations. If a person hasn’t been in a chair that long then they might need extra help” (Formal Interview 1, Mary Virginia, 02/04/2011).

After all participants had been engaged in all experiences they reflected back on their experiences. Kramer stated, “It really helped me see that having a disability is not an obstacle, but something that can be worked with to create the least restrictive environment for the child. I also changed my perception about pushing students with exceptionalities to do their best rather than let them sit on the side or give half effort” (Informal Interview 4, Kramer, 04/20/2011). Josh stated,

It opened my eyes to a new world of possibility for the way I will treat the students with disabilities, and helped me understand that although their legs or arms or whatnot may be impaired, they are very capable of being active in a P.E. classroom. [I have a] whole new approach to my strategy for teaching them. (Informal Interview 4, Josh, 04/20/2011)

#### Experience is Essential for Competence

The participants shared the same perception that the length of time that the person has been in a wheelchair can impact the modification that a teacher may or may not have to make.

In the initial interview, Josh said,

A person in a wheelchair can do everything anyone else in their class can do. I mean the all of them will need some type of modification or adaptations. Some might need just a little of this and a lot of that while others a lot of this but only a little of that but they all need some type of modifications. How severe a person might be disabled or how long they have been in a wheelchair can both be factors to the amount of assistance that they need. (Formal Interview 1, Josh, 02/05/2011)

Kraemer stated,

There are a lot of things that decide what modifications or how much modifications you give to a student. One student may not have the same functional level as another so the one with the less function might need more adaptations. Or you might have a kid who has used a wheelchair his whole life and another student who has used a wheelchair just two months. You would know the one who has been in his chair the less would need more adaptations or modifications. (Formal Interview 1, Kraemer, 02/04/2011)

Before any of the participants were exposed to the experiences, they seemed to think the amount of time that the student has been in the wheelchair was something to take into consideration when teaching or coaching them. Mary Virginia said, “The modifications you provide for the child depends on the child. If you have a student who has been in a chair his entire life he can probably teach you some things because he understands his limitations” (Formal Interview 1, Mary Virginia, 02/04/2011).

Jason also shared this concept of acquiring certain skills after the person in a wheelchair had been using the chairs over a certain period of time. Jason said, “The have learned how to move in their chairs. I think all of them have been in the chairs for a little while now. I just don’t think somebody who was put in a wheelchair last month could use their chairs like that” (Formal Interview 1, Jason, 02/04/2011). He stated that there were certain modifications that will just come over a period of time. Jason went on to say that he believes it is just something that is picked up through trial and error, and comes with time.

While engaged in a focus group, Mary Virginia stated that the athletes learn over time how to properly modify the way they move their bodies around in the chairs. She stated,

I think just the technical aspect of learning how to use a chair in a game situation with the blocking drill that they do. They have to learn to maneuver the chairs and it is not easy... maneuvering their bodies to shoot the ball they have to maneuver chairs to get space to shoot the ball. (Focus Group 1, Mary Virginia, 02/08/2011)

Mary Virginia’s perceived the way they move just to get around on day-to-day activities was much different than getting around the court to play wheelchair basketball. She stated that this responsibility of making proper modifications fall directly on the student and nobody else. She stated that this will be acquired over a period of time after the students in the wheelchair discover this technical skill.

Isabella seemed to have the same perception that these are modifications required to be successful in wheelchair sports. But Isabella stated that the students may receive guidance at this technical skill. Isabella said,

Also, I noticed the coach at one point; he's not only coaching the players and teaching them basketball but also teaching them stuff about the chairs. I noticed he told them shoulders back, he said something about how to use the chairs. (Focus Group 1, Isabella, 02/08/2011)

Isabella stated that it also is the coach's responsibility to properly teach the students in wheelchairs these technical skills in order for them to reach maximum potential.

After it had become apparent, all the participants wanted to know the time their students had been in a wheelchair, the question was asked, why is it important to know how long a student has been using a wheelchair? Jason said, "You got to know your students. You have to learn all you can about them. If someone has been using a chair along time they don't need much help from you" (Informal Interview 2, Jason, 02/08/2011). Kraemer declared, "It is important to know how long a student has been using a wheelchair in order to better serve the students. Knowing how long they have been in the chair helps to better understand the mindset of the student" (Informal Interview 2, Kraemer, 02/08/2011). While Stephanie stated, "You got to know how to help them. Knowing how long they have used a chair helps to give you an idea of what they can or can't do well. (Informal Interview 2, Stephanie, 02/08/2011)

Mary Virginia said,

You have to know them. If you have a student in a wheelchair and he has never been in a wheelchair but let's say only a month. Then you have to understand this student may not be too good at using the chair yet. (Informal Interview 2, Mary Virginia, 02/08/2011)

The pre-service physical education teachers' perceptions seem to be grounded in the perception that the length of time a person has been in a wheelchair can impact the modification you make for that individual. Josh stated, "The length of time someone has been in a condition or situation

can have an impact on how they look at things. It can help you better understand the person and attitude they may have towards learning” (Informal Interview 2, Josh, 02/08/2011).

After participating in all the experiences Kraemer stated,

I was going to say the modification that you [teachers] make for somebody who just acquired the disability versus someone who had one [disability] for a long time, I mean the modifications are going to be very different because you pretty much are starting off with a beginner student skill level and they [student with the disability] need to figure out or they don't know what they can and can't do... (Focus Group 2, Kraemer, 02/18/2011)

Kraemer explained that the teacher must know and understand when the disability was acquired because this can impact the student's skill level. He stated that someone who has recently started using a wheelchair might not possess the same skills as someone who has been in a wheelchair since birth. Kraemer also believed that the students in a wheelchair were able to make modification on their own without any guidance or assistance after they have been in the chairs for a certain length of time. Kraemer said, “He [athlete in a wheelchair] just made adaptations according to his ability and his physical status as far as figuring out what he can achieve” (Focus Group 2, Kraemer, 02/18/2011). After his first exposure to wheelchair athletes Kraemer wrote, “It is obvious that the athletes have been using there chairs for quite some time now. I just don't see an amateur doing the things that they do” (Critical Incident 1, Kraemer, 02/04/2011).

After attending her first wheelchair basketball practice, Stephanie wrote, “They have been in the chairs along time because they are making some moves almost without effort” (Critical Incident 2, Stephanie, 02/08/2011). After observing the documentary film, Jason wrote, “The rugby teams are just incredible. The sport seems basic but it requires a lot of skill and training. I don't think someone who was new to using a chair would do very well in this sport” (Critical Incident 3, Jason, 02/18/2011).

All six participants seemed to share the same perception that the amount of time their students are in wheelchairs is important for them to know and understand. The pre-service physical education teachers seemed to think, the longer a person is in a wheelchair the more acclimated they will become and this allowed for them to perform more efficient movement. After being exposed to all three experiences, Mary Virginia wrote,

I am just blown away by wheelchair basketball and murderball sports. I can't believe at the ability level of the athletes. I am glad to just see those people in the wheelchair make a comeback the way that they did. I am sure it took some time for them to get use to their chairs but once they got use to them they are able to compete in competitive sports. (Critical Incident 3, Mary Virginia, 02/18/2011)

#### Different but Equal

The participants' fourth theme was the concept that athletes who use a wheelchair might be different in appearance but they still are just as equal in skill as stand-up athletes. The participants' perceptions are that athletes in a wheelchair are just like those athletes who do not use a wheelchair.

Stephanie stated, "Well I think everybody deserves a chance whether they have a disability or not because if they can't do it they might feel left out just because they have a disability" (Formal Interview 1, Stephanie, 02/04/2011). Stephanie explained that as a teacher or coach you should never want any of your students to feel left out because of a disability. She stated sometimes its best for some students to be taught physical education in an adaptive setting. She believes that this allows for the student with a disability to try skills without being embarrassed because of failure. When Stephanie was asked what she thinks a person in a wheelchair should do in a regular physical education classroom, she said, "They can do whatever their capable of doing in their wheelchair..." (Formal Interview 1, Stephanie, 02/04/2011). She stated that they will in fact have their difference and limitations but they are still as equal as all

the other students. The ideas of them being in a wheelchair does not constitute them not being included in activities. She also seemed to believe that students who use a wheelchair and participate in athletic programs should be treated equally as those who may not be in a wheelchair. Stephanie said,

I think the amount of scholarships (between able-bodied athletes and athletes who use a wheelchair) should be the same. I think they should be treated equally. Just because they may have a disability doesn't mean you treat them any differently. (Formal Interview 1, Stephanie, 02/04/2001)

She explained how she feels that students who are on a college or university team should be treated the same, whether the athletes are able-bodied or athletes are in a wheelchair. While during his first interview Kraemer talked about his perceptions of all students being equal, Kraemer stated,

Pretty much I would say my big thing is everybody should be participating yes everybody should be. They all should enjoy the services of P.E. and learn from it. All students should take what I am teaching and apply it to a lifetime and be able to find something they can enjoy. I think the purpose of adaptive P.E. is to provide students that would have exceptionalities the same opportunities... Most students with a disability don't get to participate fully because the teacher don't really understand what the students can do or what they should do because they think the students are fragile for whatever reason. (Formal Interview 1, Kraemer, 02/04/2011)

Kraemer believed that all students are the same and in fact most students can do just about the same skills or drills. But it is the teachers of students that seem to treat the students differently.

When Kraemer was asked, should students in a wheelchair receive athletic scholarships to play on college or university teams, he responded,

Yes, definitely, just because they are in a wheelchair doesn't mean they are not just as much of an athlete as everyone else. Like the football player, basketball player, or gymnast they are all a unique athlete in their own respect they are unique athletes. (Formal Interview 1, Kraemer, 02/04/2011)

Kraemer was confident that all athletes are the same. His perception was that athletes who use a wheelchair are just as athletic and important as those able-bodied athletes. Mary Virginia also

seemed to be convinced that students might be different in terms of abilities or capabilities but they are the same. Mary Virginia said, “I believe adaptive physical education is a chance to provide all students the same opportunities... those same options and interest so they may stay healthy also” (Formal Interview 1, Mary Virginia, 02/02/2011). Mary Virginia stated this is the reason for an adaptive physical education class. The reason is not to differentiate the students but it was the purpose of the class to ensure all students are being given the same opportunities without regard to their disabilities. She stated,

I want them to learn that just because they have exceptionalism doesn't mean that they can't go and be physically active just like everyone that might not have exceptionalism; you know whether it's sport or individual activity. I want them [students in a wheelchair] to know that they can find a way to learn in their own way, a way that's best for them... (Formal Interview 1, Mary Virginia, 02/02/2011)

Mary Virginia stated this is one of her main goals for students who may be in a wheelchair. She wanted each of them to understand that their wheelchairs do not decide their abilities. All of her students will understand each of them is equal. Jason's perceptions were not different from the other participants as he stated,

I know and understand they [students in a wheelchair] might look different but I want them to do the same thing as everybody else [able-bodied students]. I know that they can do everything as everybody else like in basketball. I want them to dribble and shoot a basketball, I know they can't do it like everybody else but they can be included like everybody else” (Formal Interview 1, Jason, 02/04/2011)

Jason was determined to educate each of his students with the same activities. He believes that his students will have differences whether these differences are physical differences or differences in ability level, but all students can participate and learn in a physical education class.

While Isabella also seemed to think that all students should be treated the same in physical education class, Isabella said, “To give children that have any type of physical disability or mental disability the same chance to experience what you [teacher] are teaching everyone

else” (Formal Interview 1, Isabella, 02/02/2011). Isabella wants her students with a disability to have the same experiences as students who do not have a disability. She believes all of her students should have the same teaching goals. Her perception is that if students in wheelchairs are competing on a college or university basketball team then they should receive a scholarship just like the able-bodied athletes. When asked if the amount of the scholarship for wheelchair athletes should be the same as regular basketball, Isabella said,

Yes, they are playing and it’s the same capability. I don’t see why not. I don’t think it should be any lesser because they are in a wheelchair that I just don’t see why it wouldn’t be the same that’s kind of crazy. (Formal Interview 1, Isabella, 02/02/2011)

Isabella’s perception is that all athletes should receive the same compensation in college. She stated that it takes skills to play wheelchair basketball just like it does in regular basketball. The idea of the two sports not receiving the same benefits seems ridiculous to her.

After participating in all experiences, Stephanie stated, “I just don’t think students in an adaptive physical education class should be treated any different than students in a regular class. I think they all can learn the same things just in different ways maybe” (Informal Interview 2, Stephanie, 02/09/2011). It is obvious that Jason agreed with Stephanie’s viewpoint as he stated, “I think I would enjoy teaching all students. I mean just because I have a student in a wheelchair does not mean I can’t teach them. I just don’t see any differences in a student who uses a wheelchair and a normal student” (Informal Interview 2, Stephanie, 02/09/2011).

Josh explained his thoughts and perceptions of how he would conduct an adapted physical education class as he stated, “I wouldn’t treat them any differently... I will give them the same skills and drills that I would give a regular physical education class... I wouldn’t make the game or drills any less interesting or change any rules” (Formal Interview 2, Josh, 02/09/2011). Josh’s perception is that whether the students are being taught in a regular physical

education class or in an adaptive physical education class he would treat them the same. He stated that performing drills and skills can still be accomplished just as successfully, no matter if the student uses a wheelchair or not.

Josh stated the ability to perform a skill may not be impacted just because of a student or athlete's disability. He stated,

They (students in a wheelchair) are just as gifted and talented as we (able-bodied) are you shouldn't punish them for their disability. For me, I remember I was on scholarship to play baseball and I had an eye injury and because of my eye injury the coach took my scholarship... Sometimes a disability does not change the ability level of a person. (Formal Interview 2, Josh, 02/09/2011)

Josh believes that teachers and coaches sometimes box in the abilities of students just because of a disability. He reflected on his experiences that he believes you should not limit the abilities of a student with a disability. Kraemer stated,

Students who use a wheelchair are not any different. When I teach an adaptive physical education class, I will teach them the same skills that I am teaching my other students. The wheelchair doesn't confine their abilities and it doesn't define who they are. Students in a wheelchair can learn and be very successful. (Informal Interview 3, Kraemer, 02/18/2011)

Jason wrote,

After watching the wheelchair basketball game and practice I see that the athletes have a lot of ability. It helps me to see that when I get in a gym I am able to teach them [students who use a wheelchair] just like all of the other students. (Critical Incident 2, Jason, 02/08/2011)

Isabella wrote,

I have learned through this experience that all my students are equal in abilities. Wheelchair basketball is basically the same as regular basketball. They both take skills and techniques. (Critical Incident 2, Isabella, 02/04/2011)

Isabella also stated,

I think it is very important to realize they [students in a wheelchair] can be a part of anything. Just like the other day on our test, I learned of this really awesome thing that you [teachers] can do, sometimes you just have to change things up you know reverse it.

When you have kids that do not have the same disability as one of the students in the class, the other students don't understand, especially the younger ones. They [able-bodied students] pick on the student with a disability because they don't know what they [the students with a disability] are going through or what they are able to do. So in order to give them a glimpse of what the person with the disability is going through and make them respect the person and have a newfound understanding of the difficulties they [students with a disability] face, you change the environment of the class. You allow the student [who is able-bodied] to switch positions with the other student [the student with a disability]. You can put a student who does not use a wheelchair into a wheelchair or blind-fold someone who can see. Then the kids [students without a disability] will almost want to help and come up with ideas to help the other kid [student with the disability]. (Formal Interview 3, Isabella, 02/18/2011)

Isabella was the first in this study to introduce the idea of students without disabilities actually taking some ownership in assisting with the modifications of students with a disability. She believes that you can allow everyone to participate in the modification process. Even students who do not have a disability can learn about the challenges students with a disability may face when trying skills or performing activities.

Jason stated that modification is important when teaching students who use a wheelchair. When asked, what was the most meaningful part of the research study, Jason said,

It's me knowing and better understanding what the individual with the disability is going through and how they feel. I understand now that they would need someone to modify activities or games and by doing this I know I will be able to teach them and kind of touch them. (Interview, Jason, 02/18/2011)

Through the experiences of this research study, Jason believes that he can help impact his students future by simply being willing to modify their activities or games.

Stephanie wrote, "Through my experiences with wheelchair basketball, I have learned that the sport is really no different than normal basketball. The players, coaches, officials, and fans are basically the same. There are obvious differences such as the athletes use chairs but the game is still the same" (Critical Incident 3, Stephanie, 02/18/2011).

Mary Virginia wrote,

I can say I love all of my experiences. The most important thing I think I learned was something that I knew before but he gave me evidence that people might look different but they are all the same. (Critical Incident 3, Mary Virginia, 02/18/2011)

Kraemer wrote,

The students who use the wheelchairs are the same as those who play regular basketball. In fact to me I think they are more skilled but I guess I am saying that they are more talented than what people think they are. (Critical Incident, Kraemer, 02/18/2011)

The participants in this research study all seemed to share the perception that there is no difference in students who use a wheelchair and those who may not. Jason stated, "Observing wheelchair basketball open my eyes to know that every kid with any disability can do everything asked in a physical education class" (Informal Interview 4, Jason, 04/20/2011). Whether it is athletes or students they all are the same but their abilities may vary. Josh wrote,

There is no difference a people we are the ones that make a difference. If you were to ask a person in a wheelchair if they wanted to be treated any different they all would probably reply they just want to be treated the same as everybody else. I mean even with the wheelchair basketball team they don't want you to tell them they did good considering they are in a wheelchair they would prefer if you just told them they did fine because they are good athletes. (Critical Incident 3, Josh, 02/18/2011)

#### Ability Levels of Athletes

The fifth theme to emerge from this research study was the ability levels of the wheelchair athletes. In order to have a clear understanding of each participant's views toward students who use wheelchairs, questions were asked to them to see and understand how they view the ability level of students or athletes who use a wheelchair.

In the students' first interview, the question was asked to each of them, can students in a wheelchair possess the proper skills to become successful in team sports? Stephanie said, "Yes, I think so. They can play sports like basketball or something like baseball or softball or pretty much anything" (Formal Interview 1, Stephanie, 02/04/2011). Stephanie seemed to be confident in her perception that the students can succeed in team sports. Before being exposed to any

experiences, Kraemer stated, “Yes they have the ability to participate in team sports provided they were given opportunities to participate in team sports and provided the teacher gives them or works with them...”(Interview 1, Kraemer, 02/04/2011). Kraemer’s perception seemed to be that students have the proper skills as well but it is the responsibility of those around them to ensure that the student in a wheelchair is given opportunities to participate in team sports.

Mary Virginia declared,

Yes, I mean right now there are wheelchair basketball teams, or you [student in a wheelchair] can be a wheelchair volleyball player, I don’t know if they have one but there could be one. But I know there are wheelchair baseball and softball teams because they play on miracle fields... I think that just because you are in a wheelchair doesn’t mean they [students or athletes in a wheelchair] can’t learn skills. (Interview 1, Mary Virginia, 02/02/2011)

Mary Virginia seemed very confident in the ability of students who may use a wheelchair. She gave example of wheelchair athletics that have been successful as well as proposed a potential new wheelchair sport. Isabella used other sports to justify her beliefs, Isabella stated, “Yes, I guess one could say a lot of sports exist were they do and I don’t see why not it’s been proven that they can” (Interview 1, Isabella, 02/02/2011). The participants in the initial interview stated that students in a wheelchair can have the ability to participate in team sports. Jason said, “... I think they can get any skill” (Interview 1, Jason, 02/02/2011).

Throughout the duration of this research study, the participants compared the abilities of students who use a wheelchair with the abilities of students who are not in a wheelchair. They justified approving the skill level of students in a wheelchair by using the same standard of able-bodied athletes. All six of the participants echoed this theme throughout this study, in a variety of sources. In the first focus group, Josh stated, “I was very surprised at how high tempo the game was. It was intense and everybody was getting after it. It [wheelchair basketball game] was just as high contact as a regular basketball game would be” (Focus Group, Josh, 02/08/2011).

Josh was surprised by the level of intensity at the wheelchair basketball game. Obviously, his perception before this experience was that students in a wheelchair were not able to compete at such a high level of energy. He stated that the game was exactly like that of a regular basketball game. Josh later stated, “The more I watched it [wheelchair basketball game] I started watching it as a regular basketball game. I mean pretty much regular basketball players except the way they get around is in a chair” (Focus Group 1, Josh, 02/08/2011). He stated that he did not even notice or perceive them as abnormal any longer but in fact he views them just like any other basketball players.

Mary Virginia said,

I didn't expect to see it since he [a wheelchair athlete] didn't have anything but a partial arm, I mean his arm wasn't long enough to bend over and pick up the ball off the ground but he was able to pick up the ball off the ground and even shoot just like a regular basketball player. (Focus Group 1, Mary Virginia, 02/08/2011)

Mary Virginia had prior expectations of what one of the athletes in a wheelchair could or could not accomplish successfully but after viewing a practice her perceptions changed. She realized that just because someone looks a certain way does not mean they are or are not able to perform the skill. Mary Virginia stated she now knows that students who are in a wheelchair can do a lot more than what she previous thought. After being exposed to a wheelchair basketball game and a wheelchair basketball practice, Kraemer said, “I totally didn't expect it. I didn't expect for him to have the ability to pick himself back up after falling. I mean he just picked himself right up just as you or I would do” (Focus Group 1, Kraemer, 02/08/2011). Kraemer was surprised over the reality that athletes in a wheelchair can fall over and pick themselves up. He stated he would have never guessed that the athlete would be able to do this.

Mary Virginia was fascinated at the athlete in the wheelchair capabilities. Mary Virginia stated,

Somebody passed him the ball and I mean before this morning I would not have thought about it. I mean the guy passed the ball as hard as he could just like you would or anybody else would and he caught the ball just as well as anybody would have. (Focus Group 1, Mary Virginia, 02/08/2011)

She compared the ability level of the athletes in a wheelchair to individuals who are not in a wheelchair. She was astonished at the concept that they were able to perform these skills as natural as they do. Jason said, “Watching wheelchair basketball is like very intense I mean they can do anything a person without a disability can do. They have leagues, coaches, and teams just like any other sport” (Focus Group 2, Jason, 02/18/2011). Jason was caught off guard how the athletes in a wheelchairs were competing at a level of intensity just like a regular basketball game would. He stated he was very surprised at how they were so similar to normal basketball environments.

Jason also wrote in a critical incident following his first exposure,

Watching practice is kind of how I pictured it. It was very intense and was very similar to regular basketball. They scrimmaged and used game situations... the player do suicides just like in real basketball, and when they got to the baseline they fall and push themselves up real quick. Amazing! (Critical Incident 1, Jason, 02/08/2011)

Jason talked about how wheelchair basketball practice resembled practice of stand-up basketball practices. Jason stated that wheelchair basketball was really just like stand-up basketball. While Josh reflected on his first exposure he stated, “Wheelchair basketball player with no hands! Incredible! He has an accurate shot and could maneuver as well as anyone else” (Critical Incident1, Josh, 02/08/2011). Josh stated that before watching wheelchair basketball practice he never imagined that a player with no hands could actually compete. He stated that the player with the disability was just as good as all the other players.

Stephanie said,

Practice in wheelchair basketball is very intense. They [the athletes] go at a very quick pace. All of the players are very active at all times. As a team they shoot very well. They

all have a good work ethic. It's almost the same as watching a normal basketball game. They do suicides just like real basketball. (Critical Incident 1, Stephanie, 02/08/2011)

She talked about practice and the more she talked about practice she notices that wheelchair basketball practice resembles that of an able-bodied wheelchair practice. When asked why she stated, almost like a normal game, she replies the only difference is that the athletes used wheelchairs. Kraemer also reflected on his first wheelchair basketball game stating, "Pretty much every aspect of the game was amazing to me since I never attended a wheelchair basketball game before...they can compete at just as high of a level as players who are not in a wheelchair" (Critical Incident 1, Kraemer, 02/05/2011). Kraemer seemed to believe that there really was not much of a difference between athletes who use a wheelchair and those athletes who do not use a wheelchair. His perception of wheelchair basketball was that the game is just as intense as a normal basketball game.

Josh wrote,

Being able to see first-hand how physically capable wheelchair being are. The talent I saw on the court was crazy good. They were fast, quick, evasive, and powerful. To see how much of the game was enforced just like regular basketball. I saw one girl make every shot she took except one... I can't do that...The intensity and aggressiveness was on the same level as regular basketball. I was definitely surprised at what I saw! (Critical Incident 1, Josh, 02/06/2011)

The examples were given by Josh as he talked about many of the similarities between wheelchair basketball and stand-up basketball. Josh stated that the ability level of students in a wheelchair is not any different from any other person.

The students were asked to explain what they thought of the ability levels of students who use wheelchairs. Following all of his experiences, Josh said, "I think the thing that surprised me the most was just the things that they [athletes in a wheelchair] could do in their chairs. I just really didn't know what to expect but I can say I didn't expect to see them perform so well"

(Informal Interview 3, Josh, 02/18/2011). Stephanie talked on the ability levels of the wheelchair athletes as she stated, “I guess I was surprised... I really just didn’t think that students in a wheelchair could do a lot of the things that I saw them [students in a wheelchair] do during the wheelchair basketball game. I know now that they can do well in my classrooms” (Informal Interview 3, Stephanie, 02/18/2011). Jason stated that all of the athletes are in align with his peers as he stated, “I just enjoyed being around the athletes. They are proof that anything can be done if you put your mind to it. They lost their legs but they proved that they can still do the same task as everybody else” (Informal Interview 3, Jason, 02/18/2011).

Kraemer stated,

I truly enjoyed these experiences. I loved watching the games and the film. I like the wheelchair sports actually more than regular sports. These experiences have taught that the sky is the limit with all students. I will not box in the abilities of my students. They [students who use a wheelchair] can do everything that all other students can do. (Informal Interview 3, Kraemer, (02/18/2011)

Isabella said,

These experiences have been eye opening for me. I never looked at students who have a disability any different than other students. But these experiences have showed me first hand just how successful students [students who use a wheelchair] can be. (Informal Interview 3Isabella, (02/18/2011)

Through these experiences it has become apparent that the participants believe students who use a wheelchair can learn all the same skills as those students who do not use a wheelchair.

Mary Virginia summed up her experiences with the following:

These experiences have allowed me to understand more about students who use a wheelchair. I now know and understand that students who use a wheelchair or have any other disability may have certain restrictions but they can learn. It is my job as a teacher to ensure that my students have an opportunity to learn. The teacher can make a difference and get students who use a wheelchair to see that they too can reach success. (Mary Virginia, Informal Interview 3, 02/18/2011)

At the conclusion of the experiences, Mary Virginia stated, “I was absolutely amazed at

the skills and capability that people with physical disabilities could have. I used to have a "poor thing" attitude towards people in wheelchairs, but now I know that can do extraordinary things" (Informal Interview 4, Mary Virginia, 04/20/2011). After being asked to reflect back on her perceptions prior to the experience to now, Isabella stated, "I would say in the beginning my view was around a 6. I have worked with children with disabilities and have seen what they are capable of. However, I still had my doubts I guess. Now I'm a 10 completely" (Informal Interview 4, Isabella, 04/20/2011).

After being exposed to all experiences, the participants seem to have more positive perceptions on the ability levels of the students and athletes. Isabella stated,

Well I've always felt that people are capable of anything if they put their mind to it. But watching these athletes, just made me believe that even more. Kids in physical education that have disabilities need to know that they are just as capable of doing different activities. They might have to put their own spin on it, but that they can do the sport or task in their own way. (Informal Interview 4, Isabella, 04/20/2011)

#### Wheelchair Athletic Intensity

The participants seemed to perceive the level of play in wheelchair athletes as very intense. Mary Virginia wrote about perceptions following her first wheelchair basketball game as she stated,

The thing that stood out to me the most was how often the players got flipped over in their chairs and how easy it was for them to flip over... Overall I think they played just as aggressive and have the same skill levels just as stand up basketball players do. (Critical Incident 1, Mary Virginia, 02/05/2011)

Stephanie wrote,

The game was very interesting to me. I was totally surprised because I didn't expect a lot of things that took place. The game had a quick pace, and was very intense and the players were very good shooters... I was surprised by some of the moves of that the players performed. The game was aggressive. The players and coaches were very passionate about the game. I think the game carried on just as well as a normal basketball game. (Critical Incident 1, Stephanie, 02/05/2011)

She was surprised after watching her first wheelchair basketball game. Jason also described his experiences of wheelchair basketball. He wrote,

I didn't know that the game would be very intense like it was. The players were very aggressive and scored more points than I expected. The game speed was faster than I thought. The game was very identical to how the game is played without a wheelchair... I also notice the rules are the same, and the strategies are very identical" (Critical Incident 1, Jason, 02/05/2011)

Jason agreed that in his opinion that the game of wheelchair basketball was really no different the regular basketball game.

Mary Virginia's perceptions of wheelchair athletes were described in her writings as she stated,

The boys seem to move at a much faster pace than the girls. But they both move much quicker than I anticipated. They even did suicides and had to flip their chairs over and practice pushing them up each time they got back to the baseline. They performed the task with full speed and lots of intensity" (Critical Incident 2, Mary Virginia, 02/08/2011)

Kraemer summed up his perception of his first practice, "I mean wow the level they compete at is just unbelievable" (Critical Incident 2, Kraemer, 02/08/2011). After observing the documentary film Mary Virginia stated, "They just run into each other" (Focus Group 2, Mary Virginia, 02/18/2011).

After watching the documentary film, *Murderball*, Josh wrote, "

To see those guys slamming into each other's wheelchairs. They slammed into each other as hard as they can and to see them already hurt in a wheelchair and stories of them breaking their necks but they still just slam into each other. I don't see why they would risk it. (Critical Incident 3, Josh, 02/18/2011)

Isabella also wrote, "To see these players compete so hard, they are tough. I guess the competitive nature never dies" (Critical Incident 3, Isabella, 02/18/2011).

The pre-service teachers seemed to perceive the sport of wheelchair athletes as very intense following these experiences. Kraemer wrote, "I don't know very much about the rules to

the game, but I know the moves and spins the players were performing was just amazing. To perform the moves was challenging enough but the rate of competitiveness they performed them were just mind-boggling. After being engaged in all three experiences Stephanie wrote, “I just can’t believe how hard they go after it. (Critical Incident 3, Stephanie, 02/18/2011).

This last theme of intensity began to emerge immediately when the participants were exposed to wheelchair athletics. The theme was echoed until the conclusion of this study, the words of Jason best described the participants’ perceptions about the intensity level of wheelchair sports as he stated, “It’s just high impact, definitely not for the weak hearted” (Informal Interview 3, Jason, 02/18/2011).

The participants’ perceptions on the ability levels of students who use wheelchairs were also explored in this research study. Therefore, all participants were asked to rate how they viewed the ability level of students who use wheelchairs. The participants used a rating of one to ten to rate the ability level of students who use wheelchairs. The students were told that a rating of one meant little or below able-bodied ability levels; while ten means maximum or same as able-bodied ability levels.

The study showed that there was a significant difference in the rating of ability levels before pre-service teachers were exposed to any experiences when compared to after they were exposed to any experiences. Initially, before being exposed to any experiences the mean score for all participants was 4.83. The participants’ perceptions of the ability of students who use a wheelchair were very limited. While after all experiences, the pre-service teachers’ perception of students who use a wheelchair ability level was 9.33. The participants now have the perception that students who use a wheelchair can have same ability levels as able-bodied students. The exposure of the experiences impacted the participants’ perceptions.

Table 2

Pre-Service Teachers Perceptions of Wheelchair Athletes

Name	Rating of wheelchair athletes prior to exposure	Rating of wheelchair athletes after the exposure	Difference in Rating
Josh	4	9	+5
Stephanie	5	9	+4
Mary Virginia	5	10	+5
Isabella	6	10	+4
Kramer	5	9	+4
Jason	4	9	+5

## CHAPER IV:

### DISCUSSION AND CONCLUSION

This chapter will discuss the findings of this research study. The purpose of this study was to get an insightful understanding of how the participants viewed students who use wheelchairs. Through a variety of experiences this study was able to provide a better understanding of how six pre-service physical education teachers perceived student who use a wheelchair.

One of the results of this study was the language used by all participants of this study. All participants in this study were able-bodied and did not have any immediate family members who used a wheelchair. They seem to talk about students and athletes who use a wheelchair with what seems to be a natural bias. They constantly used words such as abnormalities and exceptionalities as stating that students who use a wheelchair do not meet our natural standard of norm. This is a bias that is prevalent naturally throughout this study. Due to the fact that the researcher does not use a wheelchair, the researcher did not notice the language until an editor, who uses a wheelchair, noticed the language. This bias that is shared between the researcher and the participants could be because they share a similar sporting background.

#### Research Question One

*What characteristics do pre-service physical education teachers perceive as important to successfully teach students in wheelchairs?*

This research question was intended to get a better understanding of what pre-service teachers think are indispensable characteristics for teaching students in a wheelchair. The

objective was to examine their perceptions to see if there were any ideas, concepts, or beliefs shared among the participants. Once these ideas, concepts, and beliefs were identified then justification or rationale was searched for. The study identified what these six pre-service physical education teachers thought were foundational for educating students in wheelchairs.

Throughout the duration of this study, it was obvious that the pre-service physical education teachers had consistent views of students who use wheelchairs. Through all data sources; formal interviews, informal interviews, critical incidents, or focus groups, the participant's views of students who use a wheelchair seem to mirror one another. It became apparent that the pre-service teachers all shared core beliefs about educating students in wheelchairs. The perceptions of the pre-service physical education teachers seem to revolve around a couple key qualities.

At the beginning of this research study, all six of the participants seemed to think that students in wheelchairs have the ability to learn. The participants in this study seemed to have positive attitudes toward teaching students in a wheelchair. No evidence was shown in any of the data sources that students were opposed or did not believe students in wheelchairs cannot learn. Actually, it became apparent that the idea of students in wheelchairs not being able to learn was frowned upon by the participants.

Although all of the participants believed students in wheelchairs can learn they parted ways in their beliefs on where students in wheelchairs should be educated. Half of the participants felt as if it was in the best interest of the students to be educated in an inclusive environment; while the other half felt it was best for students in a wheelchair to be educated in an isolated environment. Both sides gave justification for their perceptions but all of them were doing what they thought were best for the students. While there were different viewpoints on the setting in

which the students should be taught, they all were in consensus that the students, in fact, had the abilities to learn just like any other students in a physical education class.

These attitudes and perceptions of the six pre-service physical education teachers came at somewhat of a surprise. Because of previous research (Hodge, 1998), I anticipated that all participants would have negative attitudes toward students who use a wheelchair. The reason for this assumption was because the students had limited or no previous encounters teaching someone in a wheelchair. It did not take very long in this study to realize that my previous perceptions were opposite to these participants. Now since I understood what type of attitude the participants had toward students who use a wheelchair, I began to unveil what they believe is needed to successfully teach students who use a wheelchair.

One of the key characteristic for teaching any student is the proper setting. While being exposed to the experiences some of the participants seem to believe that the students should be educated in a regular physical education class with all other students. They believed that including the students who use a wheelchair would not only help with the confidence level of those students in a wheelchair, but it also allowed for other students to assist in modification. The participants believed that including the students in a regular physical education class gives them the best chance of living a quality life. They believed, after the experiences, most students in a wheelchair are just as capable of performing skills and participating in games just like able-bodied students. These participants presented a good explanation for educating students in a wheelchair in a regular physical education class. They also believed that this also allowed for the students in a wheelchair to start being acclimated to real world situations. These participants' perceptions were that this will allow the students who use a wheelchair to adjust to the "real world" easier after school is complete.

While other participants were not opposed to educating students in a regular physical education class, they believe that sometimes it was best for students to be in an adapted physical education class. They believe the students in a wheelchair may be more productive if they are in a class alone. These pre-service physical education teachers believe that sometimes you must consider the students confidence level. All students in a wheelchair will not be hasty to attempt skills and games while they are in the midst of able-bodied students. These pre-service teachers believe that isolating these type students gives them the best chance at achieving their maximum potential. These participants also give justification for education students in a wheelchair in an exclusive environment.

It was interesting that participates were almost divided equally on their perceptions of the best setting to educate students in a wheelchair. Actually, both inclusion and exclusion are probably the best setting to educate students who use a wheelchair. There are times in which the students who use a wheelchair need to be educated with all other classmates while at other times the students in a wheelchair may need to be educated in a one on one environment. The setting of the class of wheelchair basketball may or may not be as important as the fact that all the participants believe that they can educate students in wheelchairs. Each of the participants believes they can teach students in a wheelchair almost effortlessly. Even though the participants were split in regards to settings, I thought it was more important that all of the participants were choosing the setting because they thought it was the best setting for the students. This was evidence that the pre-service teachers in this study had their student's best interest at heart.

While the setting was in fact a key characteristic to all participants, the key finding is their perceptions toward teaching a student who uses a wheelchair. The perception of the pre-service physical education teachers was the idea of not only wanting all students to learn but

believing all students can learn. The pre-service physical education teachers all believed that the students have the ability to learn.

Since it was apparent that the pre-service teachers believed all students can learn now I wanted to examine to what capacity do the pre-service teachers believe their students can learn. At the beginning of this study, participants believed all students could learn but they seemed uncertain on the capacity of the students in a wheelchair can learn. After being exposed to all of the experiences in this study, all pre-service teachers began to perceive the capability of students who use a wheelchair as unlimited. After all experiences, participants seemed to have the perception that students in a wheelchair can do anything in their classes just as students who do not use a wheelchair. At the conclusion of all experiences, the participants stated that all if the experiences allowed for them to better understand students who use wheelchairs.

The participants in the research study believed that the students who are in a wheelchair had to acquire the knowledge it takes to participate in wheelchair athletes. The ability levels of the athletes in wheelchairs were higher than most of the participants had previously anticipated. They all pointed out one particular athlete who had no arms or legs. The participants stated, he gave them evidence that any skill can be acquired if teachers and coaches were willing to teach and coach the athletes.

The pre-service physical education teachers seemed to be blind to the capabilities of students who use a wheelchair. This is probably due to lack of exposure with student who use a wheelchair. Most students in a physical education teacher education program lack this exposure (Morley, Bailey, Tan, & Cooke, 2005). At the end of the research study, all participants were asked if these experiences were valuable and should more experience like these be included into their curriculum? While all the participants stated the experiences in this research as valuable,

they stated that it was not enough by itself. Each of the participants agreed that these type experiences should be included throughout their program. All of them stated they need more experiences like these to become effective teachers (Megginson and Lavay, 2001).

#### Research Question Two

*How do pre-service physical education teachers view competitive wheelchair athletes and competitive wheelchair athletics programs?*

This research question focused on the perceptions of pre-service physical education teachers' attitudes and perceptions before or prior to being exposed to a wheelchair athletes program. One of the goals of this research design was to examine how the pre-service teachers perceived wheelchair athletics before any exposure. None of the participants had any prior experiences with watching or coaching wheelchair athletes. Therefore, this study wanted to find out the participants pre-determined perceptions of wheelchair athletes and wheelchair athletics.

The pre-service teachers' overall attitudes toward wheelchair athletes were positive prior to any experience. They seemed to believe that the wheelchair athletes can participate in "pretty much anything" (Formal Interview 1, Stephanie, 02/04/2011). All of the participants agreed that being in a wheelchair does not mean that students cannot still participate in athletic programs. They all agreed that wheelchair athletes deserve a chance to "play" in sports as well. This idea of play illustrated how they view wheelchair sports. It signified to me that it was more leisure or recreational because they wheelchair athletes "play" sports instead of "compete" in sports.

The participants prior to attending a wheelchair sporting event looked at the sport as more of a "feel good" sport. They perceived the sport of wheelchair athletes as a casual sport with very little competitiveness. This perception could have been because of an absence of exposure to wheelchair athletics. It was impossible for the students to understand the level of competitiveness

in the sport if they had never observed the sport. The only contact the pre-service teachers had was in passing a person who uses a chair. Most of them seem to admire wheelchair athletes because they “overcame the odds” (Formal Interview 1, Mary Virginia, 02/02/2011). Their perceptions seem to be on the condition of the athletes and not the ability level of the athletes.

The participant were all asked after the conclusion of the study, to rank from one to ten, how they viewed the ability levels of wheelchair athletes or student who use a wheelchair, and all of them stated that their perceptions of students in wheelchairs’ ability levels were very low. The participants viewed wheelchair athletes and wheelchair athletics in the beginning as “feel good sports.” Their perceptions were that wheelchair athletic programs existed to allow those individuals who use the wheelchairs to feel “normal.”

Initially most of the participants thought of wheelchair athletes as a recreational sport. This was obvious from each participant from the initial interview. They thought wheelchair athletes participated in things such as church leagues or city-park leagues that would “make them (wheelchair basketball students) normal.” None of the pre-service physical education teachers had any prior experiences with attending or watching a wheelchair sport. So the question was after viewing the practices, games, and observing the documentary films, could these pre-service teachers considered wheelchair athletes just as competitive, intense, and physical as able-bodied basketball games?

The pre-service physical education teachers’ attitudes and perceptions of students who use a wheelchair were similar to what I had anticipated. The pre-service physical education teachers’ perceptions of students who use wheelchairs are not very accurate due to lack of exposure. The pre-service teachers seem to think initially that all students in a wheelchair were the same. This is a stereotype toward wheelchair athletes. Prior to any experiences the pre-

service teachers lacked any training or exposure on the ability levels of wheelchair athletes. Because of this lack of training or exposure, the pre-service physical education teachers, in this study, seem to base their perceptions on the athlete's condition instead of the athlete's true ability level. This study wanted to see if their perceptions and attitudes toward students who use a wheelchair would change or stay the same after being exposed to students who use a wheelchair. This research study allowed six pre-service teachers to better understand the ability levels of wheelchair athletes and wheelchair athletic programs.

### Research Question Three

*How are physical education teacher's perceptions toward students or athletes in wheelchairs impacted after being exposed to competitive wheelchair athletes and competitive wheelchair athletics programs?*

The perceptions of the pre-service physical education teachers were identified at the beginning of the study through the first formal interview. These perceptions were monitored and carefully observed by dissecting the focus group interview, critical incidents, and the final formal interview with the participants. Some of the perceptions of the participants changed through the experiences in this research study while some of their perceptions seemed to stay the same. There was an improved attitude toward the ability level of students who use a wheelchair, just as with previous research (Rizzo & Vispoel, 1992).

The biggest change was seen in how they view the sport of wheelchair athletics. The participants started to realize after being exposed to experience that the game of wheelchair basket was very competitive. All of the participants began to view the sport of wheelchair athletics as very intense and a high impact sport. This was a huge change from the participants'

initial perceptions on wheelchair athletics. Now the pre-service teachers started to view the sports of wheelchair athletics as competitive instead of “play.”

Just as previous research has shown, there was a change in pre-service teacher’s attitudes because of experiences in dealing with students who may have a disability (Rizzo & Vispoel, 1992). Pre-service teachers could not understand the ability levels of athletes who use wheelchairs because they had never observed an athlete in a chair. Without proper exposure to wheelchair athletics, teachers and coaches will continue to base their perceptions on the disability instead of the athletes’ ability level.

The biggest change seen was the attitudes of pre-service teacher toward the ability level of the students. None of the participants had any prior experiences with teaching or coaching an individual in a wheelchair. The lack of training seems to be one of the biggest problems with teacher preparation (Morley, Bailey, Tan, & Cooke, 2005). Therefore, their perceptions derived from what the students in a wheelchair appeared to be capable of doing. The participants all agreed that the ability level of students in a wheelchair can vary from person to person just like able-bodied athletes. They believed after the experiences that athletes in a wheelchair may have certain limitations because of being in a chair but these limitations do not impact the ability level of the athlete in the wheelchair.

Just like the Modell (2007) study, the participants also perceived the sport of wheelchair athletes as “very intense” (Critical Incident, Jason, 02/18/2011). They view the sport as being just as intense as any other able-bodied sport. Some of the participants stated the sport of wheelchair athletics was “more intense than regular basketball” (Focus Group, Kraemer, 02/18/2011). The pre-service physical education teachers seem to think the sport of murder-ball

is related to able-bodied football. They did not know that it was a sport that would be so intense for students or people in a wheelchair.

The participants also viewed the athlete's ability in the wheelchair sports as nothing short of being spectacular. They believed that the skills associated with wheelchair basketball are highly as equal as with the skills of able-bodied athletes. The participants frequently compared the abilities of athletes in a wheelchair with the abilities of able-bodied basketball athletes.

At the end of this study, the participants' overall attitudes toward wheelchair athletes were considered to be very competitive, intense, and physical. The participants' exposure to students in a wheelchair allowed them to change their initial perceptions of students who use a wheelchair. The students' perceptions toward the intensity level of the sport changed but the exposure also changed their perceptions toward the ability level of wheelchair athletes.

The participants in this research study enjoyed the nature of wheelchair athletics and all concluded that they will like to enjoy attending wheelchair sports in the future. Just as other research, the pre-service teachers overall perceptions of athletes who use a wheelchair seem to be positive (Kozub & Porretta, 1998).

It was shown in this study that exposure to wheelchair athletes can change the perceptions of six pre-service physical education teachers toward wheelchair sports. Participants' perceptions changed toward the competitiveness of the sport and the athletes' ability levels in the sport.

The last change was the participants' overall view of wheelchair sports. The participants, after being exposed to a wheelchair basketball game, a wheelchair basketball practice, and observing a wheelchair documentary, seemed to view the sport more much more competitive

than they initially perceived. Now after these experiences they believed the sport is just as high of an impact sport as stand-up sports.

Through the experiences of this research study six pre-service physical education teachers now better understand wheelchair athletes and wheelchair athletic programs. The pre-service teachers now have a clearer understanding at the overall ability level of wheelchair athletes.

Through these experiences, it seemed that they understand that wheelchair athletes' ability level can vary from athlete to athlete. It is important to understand that you cannot look at any athlete, whether it is regular athletics or wheelchair athletics, and know the ability level of the athlete. In order to know or better understand the skill level of individuals in wheelchairs, you must observe the athlete doing the skill to determine the skill level and not limit the athlete's skill because of a condition. All of the participants in this study recommended that experiences like these be included in their teacher education program, which was consistent with the results of previous studies (Megginson & Lavay, 2001).

Constructivist theory allows for individuals to build on to their knowledge according to their experiences. It is important to understand that teachers construct knowledge over time and with experience (Rovegno, 2003). Therefore, we must offer teachers a variety of experiences during their teacher education programs. Without the proper experiences the teachers are not able to construct the required knowledge to teach and educate all students. The participants in this research study all took their experiences and constructed knowledge to help them successfully teach students who use a wheelchair.

Since we understand the constructivist theory, we also know the importance of exposure and experiences. Without the proper exposure or proper experiences it is quite difficult for any

teacher to effectively educate his or her students. This study proved evidence that with proper experiences, pre-service teachers can build on previous knowledge in order to better serve students and athletes in a wheelchair.

### Research Recommendations

Based on the results of this research study through the process of collecting and analyzing the data sources the following suggestions are being made for future research on pre-service physical education teacher perceptives of students who use a wheelchair.

First, a more elaborate research study should be done on pre-service teachers from different institutions. The research study should include individuals from the same institution as well as individuals from different institutions. By doing this, the discovery of new themes might emerge from the data sources allowing for a more elaborate insight to the perceptions of physical education teachers. This will allow the perceptions of multiple pre-service physical education teachers to be examined. It is possible in this study, that the fact of the individuals being from the same institution could have impacted participants to have some of the same perceptions toward students who use a wheelchair. Including students from various institutions can help provided broader and more trustworthy results.

Next, a research study should be done on institutions who do not offer wheelchair sports. The absence of wheelchair sports not being affiliated with the school could have an impact on the participants' perceptions. If wheelchair sporting programs are not available at the institution, the researcher could film games and practices for the participants to observe the athletes in wheelchairs. It is understood that by participants of this study being enrolled in an institution which offers wheelchair athletes could impact their perceptions of wheelchair athletes and wheelchair sports. By examining the perceptions of students who are enrolled in an institution

which does not offer wheelchair athletes, the results of the study could be the same as this study or the results could be quite different.

These two research studies should be done and then a comparison study can be done on the current research and the two future research designs. The purpose of the study would be to examine the difference in the perceptions. This type of study would be good for all physical education teacher education programs. With the results of the three studies it will provide better understanding of the perceptions of pre-services physical education teachers. With this better understanding of the pre-service teachers it allows educators the opportunity to better serve, train, and educate students.

Research can also be done using other disabilities. The overall goal is to gain more insight on pre-service physical education teacher's perceptions on teaching students with a disability. The results of another disability which is more prevalent in society might have different results than this study. It is important that educators understand the mindset of the pre-service teachers toward all disabilities before they are able to properly train them on how to teach all students. Through research designs such as this, it can help improve the perceptions of students and allow teachers to teach the students more effectively.

Finally, a longitudinal comparative study can be done. A researcher can take two groups of pre-service teachers, introducing one of them to a variety of experiences in dealing with students who have a disability and allow the other to go through the current physical education teacher education program. After all the participants become teachers, one could examine their teaching and inclusiveness of student with disabilities. Examining to see if these types of experiences can impact the teaching and learning of students with a disability. The results should

focus on the effectiveness of including all students and the number of times students are and are not included.

### Recommendations for Physical Educators

It is time for physical educators to review the effectiveness of current physical education programs. Most of the physical education programs require only one physical education course (Hardin, 2005). Because of the lack of experience, most of the teachers enter into a physical education class with it being their first interaction with a student in a wheelchair. Therefore, the time has come for curriculum designers to revamp the current physical education teacher education programs.

Curriculum designers need to realize that because of a lack of experiences with students in a wheelchair most physical education teachers will lack confidence. The more pre-service teachers are exposed to a disability the more comfortable they will become at including and effectively teaching a student with a disability. As a teacher, I understand that if my first experiences with a student in a wheelchair are in the classroom I would be intimidated immediately. Nobody can become good at anything unless there has been a substantial amount of practice. Physical educators must learn the importance of, allowing time during the physical education teacher education program to practice teaching students with disabilities.

It is not reasonable to expect any teacher to feel comfortable teaching students in a wheelchair after only one adapted physical education course. The physical education teacher education programs need to have multiple course embedded field experience where pre-service teachers were given the opportunity for practical experience. This will increase the level of confidence of teachers when they arrive in the classroom. The results of this study provides

further evidence that more contact does lead to more positive attitudes, a possibility supported by previous research (Yuker, 1988).

The quality of the one adapted physical education classes is also normally poor. In my adaptive physical education course, I mainly studied laws in regards to special education. While it is important to study laws and understand them, it is equally, if not more important to understand the students' disability. If one adaptive physical education course is all that will be offered then it is important that the class offers a smorgasbord of opportunities. The pre-service physical education teachers should have a variety of experiences with a variety of disabilities.

#### Final Thoughts

We understand and know because of certain laws such as Public Law 94-142 that all children with disabilities must receive the same education as students without a disability. This covers the area of physical education as well. Physical education teachers must decide that teaching students in a wheelchair or any other disability is not an option but it is required by law. Just like any law it is up to people to decide whether they will abide by the law or disobey the law. The time has come for our teacher education programs to take accountability for preparing students to abide by this law. It is up to physical education teacher education programs to make sure that teachers understand this concept before they enter into the field of teaching. When students graduate out of a program they must take full responsibility for educating all students.

The purpose of this study was to gain insight on the perceptions of pre-service physical education teachers toward teaching students in a wheelchair. The goal was simply to gain a better understanding of why students who have a disability are so often pushed to the side while others become engaged in physical activities. Before the start of the research design the question was asked, why are these students being pushed to the side? There only seem to be one of two

answers for this problem; teachers do not know how to incorporate students who have a disability, teachers have negative attitudes toward students who have a disability. There is a breakdown somewhere along the way because students with disabilities are generally not being taught the effective skills as those who do not have a disability (Hodge & Jansma, 2000; Hardin, 2005). This research study found that the perceptions and attitudes of six pre-service physical education teachers toward student who use a wheelchair was very positive before the experiences. After the experiences, the pre-service teachers better understood the ability levels of students who use a wheelchair.

Understanding that the attitudes of teachers toward students who have a disability can impact test scores, this study helps to better understand those attitudes (Rizzo & Vispoel, 1992). This research study shows evidence that it's not the perceptions of the pre-service physical education teacher toward student with disabilities that's the problem. All of the participants in this research study had positive attitudes toward students who use wheelchairs. Therefore, one conclusion seems to be physical education programs are failing to prepare pre-service teachers to teach those students who have a disability properly (Hardin. 2005).

The time has come for physical education teacher education programs to take ownership in the short-coming of producing quality teacher. The programs must be committed to give students the best education which includes given them quality field experiences. If students with a disability have any chance at receiving a quality physical education program then teacher education programs must change the way they train teachers to teach.

While this research study only examined the perceptions of six pre-service physical education teachers, it is evident that the pre-service teachers are ready and willing to learn how to teach students who may have a disability. It is important for current curriculum designers and

physical educators to examine the results of this research study and any future studies to gain a better understanding of the perceptions of teachers. We must remember that individual with a disability deserve to be provided with a quality physical education program just like those individuals without a disability.

It is the ultimate responsibility of the teacher, physical education programs, and government to ensure all students are being educated properly (Hodge & Jansma, 2000). With similar studies such as this one we as educators and curriculum designers can assume responsibility for all our students. It is important for us to remember, teaching all students the same is not my recommendation, but instead it is a requirement by law.

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## APPENDIX A: INITIAL FORMAL INTERVIEW GUIDE

### Formal Interview

The purpose of this study is to look at the impact of a wheelchair athletics exposure on the perceptions of pre-service physical education teachers toward students who use wheelchairs. There are not right or wrong answers; be honest and direct in your responses.

### **Background information** (multiple prompts allowed)\*

- What is your current class status?
- Where were you born?
- What is your race?
- What is your gender?
- What is your ethnic origin?

\*No need to ask questions in this section when answers are obvious

### **Experience working with children with a student in a wheelchair**

- Tell me what experience you have working with children?
- Have any of these experiences been with students who have a disability? Explain the disability and functional ability of the child?
- Have any of those students with disability been student in a wheelchair? If applicable
- What ages?
- What setting (school, private lesson, coaching, after school program, summer camp, etc.)? If applicable
- What were your roles in working with children (coach, volunteer, substitute teacher, family, etc.)? If applicable
- Please describe what exactly your duties or responsibilities were? If applicable

### **Value Orientations**

- What are your beliefs about teaching and learning physical education?
- What do you think is the purpose of adapted physical education?
- What are your goals for adapted physical education?
- What do you think a person in a wheelchair should do in physical education?
- What do you most want students in a wheelchair to learn from you (i.e. skills, teamwork, responsibility, tactics, etc.)?
- Do you teach students responsibility? If so, how? Why is it important to you? If not, why not?

**Classroom Knowledge**

- Do you feel students in a wheelchair should be included in a regular physical education classroom? Explain why or why not.
- What types of knowledge, concepts, or skills do you think are indispensable for teaching students in a wheelchair?
- Where did you acquire the knowledge to teach students in a wheelchair?
- Do you feel you have an adequate amount of knowledge to successfully teach students in a wheelchair?

**Sport Knowledge**

- Can students in a wheelchair possess the proper skills to become engaged in team sports? Give some examples of the sports.
- Do you feel that it is safe for students in a wheelchair to take part of a recreational sports team? Explain your answer.
- Do you feel that it is safe for students in a wheelchair to take part of a competitive sports team? Explain your answer.
- Should students in a wheelchair receive athletic scholarships to play on college or university teams? Why or Why not?

## APPENDIX B: FINAL FORMAL INTERVIEW GUIDE

### **Value Orientations**

- What are your beliefs about teaching and learning physical education?
- What do you think is the purpose of adapted physical education?
- What are your goals for adapted physical education?
- What do you think a person in a wheelchair should do in physical education?
- What do you most want students in a wheelchair to learn from you (i.e. skills, teamwork, responsibility, tactics, etc.)?
- Do you teach students responsibility? If so, how? Why is it important to you? If not, why not?

### **Classroom Knowledge**

- Do you feel students in a wheelchair should be included in a regular physical education classroom? Explain why or why not.
- What types of knowledge, concepts, or skills do you think are indispensable for teaching students in a wheelchair?
- Where did you acquire the knowledge to teach students in a wheelchair?
- Do you feel you have an adequate amount of knowledge to successfully teach students in a wheelchair?

### **Sport Knowledge**

- Can students in a wheelchair possess the proper skills to become engaged in team sports? Give some examples of the sports.
- Do you feel that it is safe for students in a wheelchair to take part of a recreational sports team? Explain your answer.
- Do you feel that it is safe for students in a wheelchair to take part of a competitive sports team? Explain your answer.
- Should students in a wheelchair receive athletic scholarships to play on college or university teams? Why or Why not?

### **Knowledge Acquired**

- What aspects of being exposed to wheelchair athletes were important to you?
- Did being exposed to wheelchair athletes have an impact on your teaching style or teaching philosophy? If so, explain.
- What was the most meaningful part of this experience?

APPENDIX C:  
CRITICAL INCIDENT

My most meaningful experience from participating in this activity was...

APPENDIX D:  
ASSENT FORM

Dear Student,

I am conducting a research project for my dissertation involving students located at The University of Alabama and I would like to include you in my study. I am a former teacher/coach of two different school systems in Alabama and doctoral student at the University of Alabama. I am working on my Ph.D. in Sport Pedagogy with a foundation in special education and instructional leadership.

My research involves evaluating pre-service physical education teachers' exposure with students who use a wheelchair. Because students in a wheelchair are a part of physical education it is important to examine teachers' perception about these students. The results can then be used to help develop programs that encourage hands on relevant exposure to students who use wheelchairs.

As part of this research project, you will be asked take part in a formal interview which should last approximately 30 minutes. You will also be asked to provide information about your gender, grade level, experiences, athletic status, and extracurricular activities. You will attend one wheelchair basketball game and attend one or two wheelchair practices.

I will collect all data. All information will be kept confidential. You will not be identified; only group data results will be reported. There are no penalties or negative consequences if you choose not to participate. The instructor of the class will not know which students are participating or which students are not participating in the study. It is completely voluntary and you may stop at any time without consequences. This project and consent form have been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the research compliance officer of the Institutional Review Board, Tanta Myles, the Research Compliance Officer, at 205-348-8461 and toll free 1-877-820-3066.

If for any reason you do not wish to participate in this research study, please do not hesitate to say so. In that event, you will be able to work on other activities assigned by your teacher, during if any time is allotted for this study. If you wish to participate in this study, please complete the enclosed response form. If you have any questions pertaining to the study, please feel free to contact me at xxxxxxxx or lrichey3@crimson.ua.edu. Thank you for your time and consideration.

Sincerely,

Lenoise Richey Jr., Ph.D Student  
The University of Alabama  
Kinesiology Department

**Student Participant Assent Form**

I, \_\_\_\_\_, consent to participate in the dissertation study to be conducted by Lenoise Richey Jr., a doctoral candidate from The University of Alabama, during the Spring 2010 school term.

\_\_\_\_\_  
Student's Signature

\_\_\_\_\_  
Date