

COMPARISON OF THE ATTITUDES BETWEEN UNDERGRADUATE PHYSICAL  
EDUCATION STUDENTS IN SAUDI ARABIA AND THE UNITED STATES  
TOWARD TEACHING STUDENTS WITH DISABILITIES

A DISSERTATION

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## DEDICATION

I would like to thank my God for giving me the strength and health to reach my goal. I would like also to dedicate this dissertation to my parents who have always supported me in everything I have accomplished, before and since I came to the United States. It has been very difficult for me to be away from them, but they are always in my heart. I would like to dedicate this dissertation to my brothers and sisters who encouraged me through both the good and difficult times. Thank you so much. All my thanks to all my dear friends in Saudi Arabia and United States for their support, love, and their amazing friendship.

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# ABSTRACT

TARIQ A. ALSALHE

## COMPARISON OF THE ATTITUDES BETWEEN UNDERGRADUATE PHYSICAL EDUCATION STUDENTS IN SAUDI ARABIA AND THE UNITED STATES TOWARD TEACHING STUDENTS WITH DISABILITIES

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The purpose of this study was to: (a) compare between the attitudes of undergraduate physical education students in Saudi Arabia ( $n = 98$ ) and the United States ( $n = 96$ ) toward teaching students with a physical disability, autism, an intellectual disability, and emotional/behavior disorders; and (b) determine the influence factors of religion, culture, educational setting, and experience on the attitudes of undergraduate physical education students toward teaching students with disabilities. Data were collected through the administration of *Physical Educators' Attitude toward Teaching the Disabilities-III* (PEATID-III) (Folsom-Meek & Rizzo, 2002). The statements in this questionnaire were computed in three areas which were: teaching, student learning, and academic preparation. Repeated Measure ANOVA and Independent Sample *t*-tests were used in this study. Based on the results of the analyses, participants from the United States had more positive attitudes toward teaching students with specific disabilities than Saudi Arabian participants; while Saudi Arabian participants considered experience as a more important factor related to the influence of physical educators' attitudes toward students with disabilities compared to the participants from the United States. It was concluded



that the results of this study may help the faculty in physical education teacher preparation to develop appropriate preservice curriculum related to attitudinal development.

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## CHAPTER I

### INTRODUCTION

Saudi Arabia is one of the developed nations that believes education is crucial for the future of the country. The government provides an organized educational setting for their citizens and offers a free, high quality education for both students with and without disabilities at all educational levels. This includes elementary, middle, and high schools, and universities (Ministry of Education, 2003). However, the vast majority of male and female students with disabilities in Saudi Arabia still receive their education in separate schools. In addition, many educational experts in both United States (Bursuck & Friend, 2002; Gouveia, 1997; Sharpe, 2003; Starr, 2001) and Saudi Arabia (Alkhateb & Alhadedy, 2011; Alromeh, 2010; AlZahrani, 2008) have stated that including students with disabilities in general classes, including physical education, will generate both educational and social benefits for both students with and without disabilities.

Saudi Arabia is just in the initial steps in considering the implementation of the inclusion concept in its public schools, including physical education. On the other hand, the United States has implemented this concept for at least 30 years in the public schools under the labels of mainstreaming (Halvorsen & Neary, 2002), the Regular Education Initiative (D'Alonzo, 1990), and now inclusion (Block & Vogler, 1994).

Physical education class is also considered one of the first environments for both students with and without disabilities to begin to be educated in greater social

inclusionary environments because it is believed that there is more opportunity for interaction during these classes than in any other educational environment (Craft, 1994). However, one of the important concerns in the implementation of the inclusion concept in Saudi Arabia, is that undergraduate general physical education students do not have experience with individuals with disabilities and enough knowledge to teach students with disabilities which may lead to negative attitudes toward students with disabilities in their classes. This concern comes from the belief that teacher's attitudes have a direct affect on the successful integration of students with disabilities into general physical education classes.

Numerous researchers in different countries also have studied the relationships between attitudes of physical educators or those studying to be physical educators related factors such as the educational setting (Bursuck & Friend, 2002) and experience with individuals with disabilities (Rizzo & Vispoel, 1991). There are at least two other factors that may be very important and could affect individuals' attitudes, either positively or negatively, toward individuals with disabilities. These are religion (Ajzen & Fishbein, 1980; English, 1977) and culture (Ajzen & Fishbein, 1980; Selway & Ashman, 1998), which are not known to be investigated in the physical education or many other educational environments.

### **Religion**

Religious beliefs are powerful forces that drive culture. For example, there are many habits, customs, folktales, stereotypes, hopes, and fears of a community that occur

because of the religious beliefs of that community (Mdaa, 2008). It is interesting that 80 percent of the world's population has identified as belonging to one of the major or minor world religions (Bennett, Deluca, & Allen, 1995). Therefore, religion is a powerful factor that affects the attitudes of millions of people worldwide.

In most religions, people are taught through lecturing and preaching about the role of religion about individuals with disabilities. This directly and indirectly affects peoples' attitude toward individuals with disabilities. For example, in the Islamic religion people are encouraged to have a positive attitude toward individuals with disabilities, and all people are considered similar no matter what their disability or disease (Hasnain, Shaikh, & Shanawani, 2008). For instance, there is a keyword search for 'deaf' at <http://www.searchquran.org> where 17 Quranic verses, with their location, containing the word 'deaf', in a variety of English translations. There is also a story about a man who was blind who asked Prophet Mohammed to give him permission to pray at his house rather than the mosque because he could not see. Prophet Mohammed asked him if he could hear the summons to pray (أَذَان). The man who was blind said "Yes." Prophet Mohammed replied "Then I do not grant you permission" (Hasnain, Shaikh, & Shanawani, 2008, p. 2). The reason Prophet Mohammed denied the man who was blind request was he wanted this man to be a part of the community at the mosque and did not want him to isolated and alone (Hasnain, Shaikh, & Shanawani, 2008).

The Christian religion also has addressed individuals with disabilities. In the Bible, according to Julie Clawson (2007),

There is a great deal about God's intentions for people with disabilities. We hear this loudly and clearly in our texts from Isaiah and Matthew. Isaiah says we will see God's glory and majesty as weak hands are strengthened and feeble knees are made firm. This is a sacred promise for those suffering from arthritis, Parkinson's disease, and any condition that weakens hands and enfeebles knees. (p. 1)

In contrast, researchers though have examined the effect of other religions on accepting individuals with specific disabilities. For instance, it was reported that people from various religions accept individuals with intellectual disabilities differently because of their religious beliefs (English, 1977). Therefore, a question has been added in the questionnaire used in the present investigation to determine whether or not specific religious beliefs can affect people's attitudes toward individuals with disabilities. The reasons for discussing some examples of Islamic and Christian beliefs toward individuals with disabilities is because most participants who are compared in this study are either Muslims or Christians. An additional reason is to understand if these participants who are from these two religions accept their religious teachings about how they should act towards individuals with disabilities.

### **Culture**

People around the world belong to different cultures. This relationship shapes how they see the world and make sense of it. Specifically, culture is considered an important factor that effects the beliefs, values, attitudes, and behaviors of people, and controls their

interactions toward others (Selway & Ashman, 1998). Related to individuals with disabilities, culture can affect people's attitude either positively or negatively.

For example, Dovey and Graffam (1987) reported that Salteaux Indians in northern America used to burn people with disabilities because of their cultural beliefs. They believed that people with specific disabilities were possessed by a demon. Dovey and Graffam also suggested that the social position of individuals with disabilities was generally neither unambiguously negative nor positive, and that social acceptance was partial and qualified. In fact, people from different cultures, even if they did not have a specific religion, still have different attitudes toward individuals with disabilities. In this present study, the participants were from various cultures and backgrounds with differences in community and family values, lifestyles, and beliefs which may affect their attitudes toward individuals with disabilities. Therefore, a question related to culture has been added to the questionnaire used in this investigation.

### **Educational Setting**

There are two major educational settings that are being used in many countries around the world: (a) segregation where students with disabilities receive their education in separate schools; and (b) inclusion where students with disabilities receive their education in regular schools with their peers without disabilities (Jackson, 2008). However, inclusion is considered a relatively new concept of supporting the educational needs of students with disabilities in general education classrooms, including general physical education (Starr, 2001).

Many researchers (Bursuck & Friend, 2002; Gouveia, 1997; Sharpe, 2001; Starr, 2001) have suggested that including students with disabilities in the general classes will provide them, as well as their peers without disabilities, more positive social benefits than in segregated environments. In addition, as shown by multiple researchers, that having a positive attitude toward students with disabilities in the inclusionary environment is one of the most important factors in determining their level of educational success (Bursuck & Friend, 2002; LaMaster, Gall, Kinchin, & Siedentop, 1998; Rizzo & Vispoel, 1991; Rizzo & Wright, 1987).

Specifically, the results of much of the available research has shown that undergraduate students who are better prepared, including having the experience working with students with disabilities, tend to have more confidence and more favorable teaching attitudes towards students with disabilities than those without the proper preparation (Gouveia, 1997; Rizzo & Kirkendall, 1995; Patrick, 1987; Starr, 2001).

### **Experience with Individuals with Disabilities**

As previously stated, undergraduate students preparing to be physical educators who have received greater training, including experiences working with students with disabilities, tend to have more confidence and more favorable attitudes towards teaching students with disabilities than those who have not been provided these experiences (Folsom-Meek, Nearing, Grotheluschen, & Krampf, 1999; Folsom-Meek & Rizzo, 2002; Patrick, 1987). For example, Rizzo and Vispoel (1991) reported that if college students in a physical education teacher training program did not possess positive attitudes, the

course instructor must incorporate a systematic intervention that involves a multifaceted approach of information, various experiences, direct contact, and persuasion that brings positive results on attitudes toward teaching students with disabilities. Furthermore, when college professors highlight the similarities between students with and without disabilities in their classes, it supports positive student's attitudes (Rizzo, 1987; Rizzo, 1993).

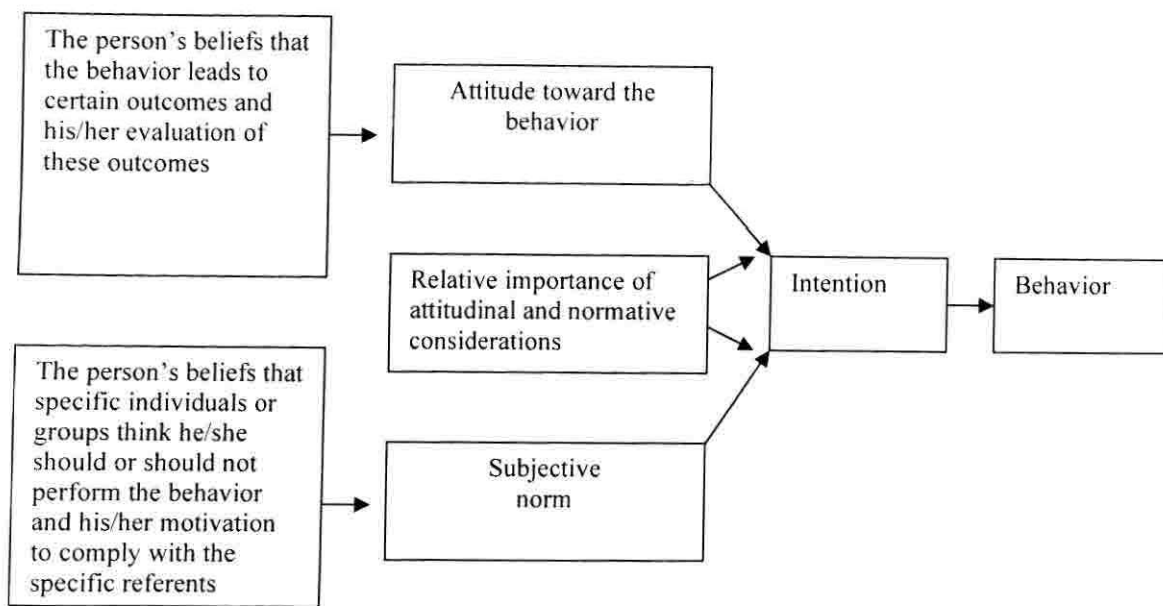
### **Theory of Reasoned Action and Planned Behavior**

In the early 1970s, the Theory of Reasoned Action (TRA) was developed, revised, and expanded by Ajzen and Fishbein. This theory was used to study human behavior and develop appropriate interventions. In 1988, the Theory of Planned Behavior (TPB) was added to the existing model of reasoned action to address the limitations that Ajzen and Fishbein had identified through their research using the TRA. The development of both the TBP and TPA focused on social psychology. As early as 1862, psychologists started to develop theories that explained how attitudes can affect a person's behavior. In fact, between 1918 and 1925, social psychologists continued studying attitudes and behaviors and they developed many new theories.

This theory arose from the 19<sup>th</sup> century, when researchers in the field of psychology started examining the term "attitude" and suggested that "attitudes could explain human actions" (Ajzen & Fishbein, 1980, p. 13). Thomas and Znaniecki (1918-1920) were the first psychologists who viewed attitudes as an individual mental process that determines a person's actual and potential responses. This occurred when social scientists began to



analyze attitude as a predictor for behavior. In Figure 1 factors determining a person's behavior are provided based on Theory of Reasoned Action and Planned Behavior.



*Figure 1.* Factors determining a person's behavior are provided based on Theory of Reasoned Action and Planned Behavior. Modified from Ajzen & Fishbein (1980).

After reviewing the results of these historical developments of the attitudes in the literature, Ajzen and Fishbein (1980) developed a theory to forecast behaviors and outcomes that related to the role of attitude. They suggested that people are usually quite rational and make logical use of the information available to them. "People consider the implications of their actions before they decide to engage or not engage in a given behavior" (Ajzen & Fishbein, 1980, p. 5). Ajzen and Fishbein stated that the theory which they developed could predict and understand behavior and attitudes. Their framework, which is known as the Theory of Reasoned Action, is used to examine behavioral intentions, rather than attitudes, as the main predictors of behaviors (Ajzen &

Driver, 1991). Ajzen and other researchers noticed that this theory was inadequate and had several limitations. For example, one of the greatest limitations in this theory was with people who have little or feel that they have little power over their behaviors and attitudes (Godin & Kok, 1996). Ajzen and Fishbein explained the characteristics of behavior and attitudes ranged from one of little control to one of great control, and they added a third element to the original theory referred to the concept of *perceived behavioral control* to avoid this limitation. This addendum resulted in a newer theory known as the Theory of Planned Behavior (Ajzen, 1990; Kesihatan, 2009).

The following explains the purpose of Theory of Planned Behavior as outlined by Kesihatan (2009, p. 2):

1. Predicting and understanding motivational influences on behavior that is not under the individual's volitional control.
2. Identifying how and where to target strategies for changing behavior.
3. Explaining virtually any human behavior, such as why a person buys a new car, votes against a certain candidate, is absent from work, or engages in premarital sexual intercourse.

The theory of TRA and TPB provides the framework to study attitudes toward behaviors. Behavioral intent is considered the most important factor of a person's behavior in this theory (Ajzen & Fishbein, 1977). In addition, the individual's intent in performing a behavior is a combination of an attitude toward the behavior, relative importance of attitudinal and normative considerations, and subjective norm. The

individual's attitude toward the behavior includes: behavioral belief, evaluations of behavioral outcome, subjective norm, normative beliefs, and the incentive to conform. As demonstrated in Figure 2 TRA and TPB as outlined by Ajzen and Fishbein (1980) refer to the timeline of understanding the relationship between attitudes and behaviors.

- In 1929, L.L. Thurston developed methods for measuring attitudes using interval scales.  
Following the Thurston's scale, came the famous, more specific, and easier to use Likert-scale. This scale is widely used today.
- In 1944, Louis Guttman developed the scalogram analysis to measure beliefs about an object.
- In 1947, Joseph Doob adopted the idea from Thurston that said attitude is not directly related to behavior, but it can indicate something about the overall pattern of behavior.
- In the 1950's, the opinion that attitude is multi-dimensional became universal.
- In 1960, Rosenberg and Hovland hypothesized that a person's attitude toward an object is filtered by their affect, cognition and behavior.
- In 1969, when Wicker did his survey and literature review on the subject, he determined that "it is considerably more likely that attitudes will be unrelated or only slightly related to overt behaviors than that attitudes will be closely related to actions."

*Figure 2. Timeline of understanding the relationship between attitudes and behaviors. Modified from Kesihatan (2009, p.1).*

According to Mackenzie and Jurs (1993):

Perceived behavioral control is the major difference between TRA and TPB. It is determined by two factors: Control Beliefs and Perceived Power. Perceived behavioral control indicates that a person's motivation is influenced by how difficult the behaviors are perceived to be, as well as, the perception of how

successfully the individual can, or can not, perform the activity. If a person holds strong control beliefs about the existence of factors that will facilitate a behavior, then the individual will have high perceived control over a behavior. Conversely, the person will have a low perception of control if she holds strong control beliefs that impede the behavior. This perception can reflect past experiences, anticipation of upcoming circumstances, and the attitudes of the influential norms that surround the individual (p. 20).

### **Purpose**

The purpose of this study was to: (a) compare between the attitudes of undergraduate physical education students in King Saud University in Saudi Arabia and undergraduate physical education students who were purposely selected from University of North Texas, Stephen F. Austin State University, State University of New York at Cortland, University of Wisconsin-La Crosse, and the University of Utah in the United States toward teaching students with physical disability, autism, mild intellectual disability, and emotional/behavior disorder in the areas of teaching, student learning, and academic preparation and (b) to determine the influence of religion, culture, educational setting, and experience with individuals with disabilities on the undergraduate students' attitudes toward teaching students with disabilities in a physical education class.

The results of this study may enhance the understanding of the similarities and differences in the attitudes between undergraduate physical education students from Saudi Arabia and the United States who generally have different religious, cultural,

educational settings, and experience with individuals with disabilities. Further, findings of this study could support or refute the Theory of Reasoned Action and Planned Behavior (Ajzen & Fishbein, 1980), which predicted that attitudes are impacted by these factors. The results of this investigation also provided clear evidence about the difference between the effect of the inclusion (United States) and segregation (Saudi Arabia) educational settings on the attitudes of undergraduate physical education students in the two countries toward individuals with disabilities.

Specifically, this is the first study designed to compare participants from Saudi Arabia where the Middle East segregated educational system is generally used and the United States which generally supports an inclusionary system. Moreover, male adults were compared from Saudi Arabia and the United States from different religious, cultural, educational settings, and experience with individuals with disabilities toward teaching students with specific disabilities in physical education classes.

### **Hypotheses**

Based on the two purposes of this investigation, the five hypotheses were tested at the .05 level of significance.

1. There is no difference between the attitudes of undergraduate physical education students in Saudi Arabia and the United States in the areas of teaching, student learning, and academic preparation toward teaching students with:
  - a. Physical disability
  - b. Autism

- c. Mild intellectual disability
  - d. Emotional/behavior disorder
2. There is no effect of religion, culture, educational settings, and experience with individuals with disabilities on the attitudes of undergraduate physical education students toward teaching students with disabilities.

### **Limitations**

1. The difficulty of finding literature or any resources in Saudi Arabia related to teacher's attitudes.
2. The use of the United States literature sometimes may not assist the researcher analyze Saudi Arabian teachers' attitudes.

### **Delimitations**

1. There were 98 male undergraduate physical education participants from Saudi Arabia and 96 male undergraduate physical education participants from United States in the study.
2. The participants were from 2 countries.
3. The two groups of participants maybe from different educational backgrounds.
4. The two groups of participants may be from different cultures and values.
5. The two groups of participants were asked about their attitudes toward teaching students with specific disabilities without considering different levels of disability related to the survey.
6. The questionnaire research design method was used in the study.

## **Definitions of Terms**

Adapted Physical Education (APE): "A diversified program of developmental, activity, games, sports, and rhythms suited to the interests, capacities, and limitations of students with disabilities who may not safely or successfully engage in unrestricted participation in the vigorous activities of the general education program" (Committee on Adapted Physical Education, 1952, p. 15).

Attitudes: "An affective feeling of liking or disliking toward an object (which can be basically anything) that has an influence on behavior" (Forsyth, 1995, p. 8).

General Physical education (GPE): "An involves teaching children and youth from Pre-kindergarten through 12 grade in the performance and understanding of basic motor skills, games, and lifelong fitness activities, as well, as the social and personal skills related to participating in physical activities" (National and Association for Sport and Physical Education, 2009, p. 1).

Inclusion: All students with disabilities will be educated with their nondisabled peers in general classes (LaMaster, Gall, Kinchin, & Siedentop, 1998, p. 64).

Individuals with Disabilities Education Act 2004 "A law ensuring services to children with disabilities throughout the nation. IDEA governs how states and public agencies provide early intervention, special education and related services to more than 6.5 million eligible infants, toddlers, children and youth with disabilities" (IDEA, 2004, P 2).

## CHAPTER II

### REVIEW OF LITERATURE

There were two purposes of this study. The first purpose was to compare between the attitudes of undergraduate physical education students in Saudi Arabia and undergraduate physical education students in the United States toward teaching students with disabilities in the areas of teaching, student learning, and academic preparation. The second purpose was to determine the influence of religion, culture, educational setting, and experience with individuals with disabilities on the undergraduate students' attitudes toward teaching students with disabilities in a physical education class. In this chapter, the researcher reviewed literature that was related to the attitudes of undergraduate physical education students toward teaching students with disabilities.

This chapter was organized in 10 sections; (a) Inclusion Concept in General Education in the United States; (b) Inclusion in the Physical Education Classes in the United States; (c) Inclusion and the Attitudes of Physical Educators in other Countries; (d) General Education in Saudi Arabia; (e) Special Education in Saudi Arabia; (f) Attitudes of Physical Educators in the United States; (g) Attitudes of Saudi Arabian General and Special Educators; (h) Attitudes of preservice physical educators; (i) Change Attitudinal of Physical Educators; and (j) Evaluation of Studies Related to Inclusion,



Attitude, and Physical Education. The 10 sections in this study are used to describe the attitudes of preservice physical educators toward teaching students with disabilities. Specifically, the researcher discussed the results of studies where the focus is on the attitudes of undergraduate physical educators toward including students with disabilities into general physical education classes.

## **Inclusion in General Education in the United States**

### **Historical Background**

In the 1950s, the Civil Rights Movement brought awareness to the rights of minorities, women, and people with disabilities (Yell, Rogers, & Rogers, 1998). Specifically, people who advocated for the rights of persons with disabilities requested changes in the federal laws so the individuals with disabilities can have their equal rights across the United States as citizens of this country. Before the government would pass a federal law giving children and youth with disabilities equal opportunities, the advocates had won several legal battles in court. Specifically, these people fought for equal rights for appropriate special education services believed that these lawsuits were supported by the law that stated all people should be treated equally, regardless of their religion, gender, socio-economic background, race, or ability level (Yell, Rogers, & Rogers).

The advocates who wanted the equal rights for children with disabilities provided evidence in various court cases that there were not enough high-quality services or opportunities for these children and youth with disabilities in schools because: (a) there was not enough funding for the programs in schools; (b) there was a lack of qualified

educators who had the backgrounds to teach special education; and (c) students with disabilities in that time did not have the same opportunities for educational development as other students without disabilities (Osgood, 2008). These court cases became landmark cases because they were the first legal cases filed in federal United States courts on behalf of people with disabilities, and these lawsuits were considered as “zero tenet basis,” which means that there is zero tolerance for anyone with a disability being treated unfairly (Osgood, 2008).

There were four federal laws passed by the United States government that protected students with disabilities in schools and ensured that they would have equal rights and opportunities in schools which were: (a) Individuals with Disabilities Act (IDEA, 2004), made official that all school-aged individuals with disabilities had equal opportunities of education; (b) Section 504 of the Vocational Rehabilitation Act of 1973, requiring accessibility to all public entities; (c) Americans with Disability Act (ADA, 1990), making accessibility legally binding; and (d) No Child Left Behind (U.S. Department of Justice, 2005).

### **Individuals with Disabilities Act (IDEA)**

The Individuals with Disabilities Education Act (IDEA, 2004) is a federal law designed to protect the rights of students with disabilities by ensuring that every student with a disability receives a free appropriate public education (FAPE) regardless of the degree of their disability (National Resource Center, 2009). This law was first passed in 1975. Every 5 to 7 years, it is reauthorized by the United States government as an official

law. This law defines or makes official all of the rights that individuals with disabilities have in education. It provides these rights from 3 to 21 years of age. The programs or special services that individuals with disabilities receive do not depend on which category or which disability that they have been categorized. The important aspect of this law is that students in special education must be provided schooling that is free and in the least restrictive environment (U.S. Department of Justice, 2005). The special services that students with disabilities receive under this law are either called direct or indirect services. Direct services are programs that are always given to all students whether they have disabilities or not, such as physical education, math, history, and science classes. Indirect services are extra programs that are given just to students with disabilities to help them be more successful in their classes, such as, occupational, physical, and speech therapy.

### **Section 504 of the Rehabilitation Act of 1973**

Section 504 is part of the Vocational Rehabilitation Act. This act was initially passed in the 1920's, and Section 504 was first added to this Act in 1973. According to the U.S. Department of Health, (2006):

Section 504 protects qualified individuals with disabilities. Under this law, individuals with disabilities are defined as persons with a physical or mental impairment which substantially limits one or more major life activities. People who have a history or who are regarded as having a physical or mental

impairment that substantially limits one or more major life activities are also covered (p. 1).

Before Section 504 was added to the law, only war veterans were given special programs; but with Section 504, all individuals with disabilities were offered special programs. Furthermore, the type of special programs that people with disabilities received changed. Before this law, individuals with disabilities only received special vocational programs, but Section 504 provided special programs that helped them in schools, in recreation, and public programs. There are no age limits for individuals with disabilities in Section 504. People can be any age and still receive special services. Individuals with disabilities legally have the same rights and opportunities as people without disabilities (U.S. Department of Health, 2006).

### **Americans with Disabilities Act (ADA)**

To receive special programs under ADA in (1990), a person has to meet the same criteria in Section 504 (United States Department of Justice, 2008). There are additions in the Americans with Disabilities Act from Section 504. For instance, the areas that individuals with disabilities could receive special programs were the same as in Section 504, but transportation and telecommunications were added. Another difference between ADA and Section 504 is that ADA changed the way reasonable accommodations for people with disabilities were defend. The ADA law also focused on how individuals with disabilities would be able to use these special programs and how they would receive them. Further, ADA stated that any person, school, or place offering a special program

who does not follow the stipulations in the ADA law, will be in violation of the law and the government can take legal action against them.

### **Inclusion in Physical Education in the United States**

Effective physical education programs can positively influence the psychomotor, social-emotional, and cognitive domains of all students; and can be used to encourage increased parental involvement in their children's learning (Sadler, Tentinger, & Wiedow, 1993). Physical education can also serve effectively in a complementary role for reducing high school dropout rates and help to improve the graduation rates of at risk children and youth (Craft, 1994). It offers opportunities for all students with disabilities to be more successful and involves them in activities that are interesting to them and that can provide a sense of accomplishment. In fact, it could lead to increased participation in the total school environment by students who are disabled.

Inclusion in physical education is a concept that has received much attention as evidenced by a special section on theories and models of inclusion in the *Journal of Physical Education, Recreation, and Dance* (Craft, 1994). Through inclusion, general physical educators usually focus on developing physical, social, and fitness skills for students with and without disabilities (Rouse, 2009). However, some students with disabilities, especially those with severe disabilities, may need adapted physical education (APE) services provided within a GPE setting; part-time within GPE, part-time within an APE class; or full-time in an APE class in the general school setting (Block & Zeman, 1996).

Approximately 18 years ago, research related to inclusion in the physical education classes failed to keep pace with practice. Block and Vogler (1994) reported 10 studies in their literature review related to including students with disabilities in GPE classes. The focus of these studies was on including children with mild disabilities (Karper & Martinek, 1983; Silverman, Dodds, Placek, Shute, & Rife, 1984; Vogler, van der Mars, Cusimano, & Darst, 1992), as well as, preliminary studies on general physical educators attitudes toward inclusion in the United States (Rizzo, 1984; Rizzo & Vispoel, 1991).

From 1995 (Reid & Broadhead, 1995) to 2005, research on including students with disabilities in GPE has increased (Sherrill, 2005). For example, many researchers have developed a qualitative research model to determine the experiences of students with disabilities in GPE (Blinde & McCallister, 1998; Goodwin & Watkinson, 2000; Hutzler, Fliess, Chacham, & van den Auweele, 2002). Other researchers have examined the attitudes of students without disabilities toward those with disabilities in GPE (Block, 1995; Slininger, Sherrill, & Jankowski, 2000; Verderber, Rizzo, & Sherrill, 2003). Numerous other researchers have investigated such topics as using peer tutors (Dunn & Leitschuh, 2010 ; Houston-Wilson, Dunn, van der Mars, & McCubbin, 1997; Lieberman, Dunn, van der Mars, & McCubbin, 2000), and then effects of students with disabilities on their peers without disabilities (Block & Zeman, 1996; Obrusnikova, Block, & Valkova, 2003), and the attitudes of general physical educators toward teaching children with disabilities (Block & Rizzo, 1995; Lienert, Sherrill, & Myers, 2001; Sideridis & Chandler, 1996).

However, researchers who opposed these theoretical models and practical guidelines remain concerned that a one-sided view is not enough to be presented without attention to the validity of the assumptions underlying inclusion and the availability of resources to support inclusion (Baines & Baines, 1994; Sherrill, 1994). For example, MacMillan, Gresham, and Forness (2005) discussed in their book, *"The Illusion of Full Inclusion"* 23 articles that provided many concerns and issues about inclusion in all general education classes which include general physical education classes.

### **Inclusion and the Attitudes of Physical Educators in Other Countries**

There are many countries beside the United States that have implemented the inclusion concept. These countries have their own policies related to the implication, which are similar to the United States. For example, in Japan, Australia, and England, students with and without disabilities are educated together in one general classroom (Downs & Williams, 1994; Kodish, Hodges Kulinna, Martin, Pangrazi, & Darst, 2010; Kusano & Chosokabe, 2001). In Greece, a law was passed entitled, PL 3699/2008, which mandates school inclusion for all children in general classes. The Czech Republic has a school law, approved in 2004, which implements inclusion into mainstream education. This law states that students with disabilities must be educated with their peers without disabilities. However, it is still common that children with disabilities are excluded from physical education classes (Xafopoulos, Kudláček, & Evaggelinou, 2009).

The attitudes of physical educators have also been widely debated in many countries that have implemented the inclusion concept. After reviewing the issues related to

inclusion, it was noted that there is a concern over the attitudes of physical educators has become an international issue. For instance, a study conducted by Chen and Jin (2006) compared the attitudes between preservice teachers from Hong Kong and Taiwan toward including students with disabilities into general physical education settings. Chen and Jin reported that preparation programs in Hong Kong and Taiwan philosophically support the inclusion concept, although there were many concerns and different opinions regarding the implementation of the inclusion concept. Further, Downs and Williams (1994) compared the attitudes of 371 preservice physical education students from different universities in Denmark, Belgium, Portugal, and England toward the integration of students with physical and learning disabilities into general physical education classes. The researchers reported all participants had more positive attitudes toward teaching students with physical disabilities than those with learning disabilities. In comparing national origins, the attitudes of the Belgian participants were significantly more negative than the attitudes of English, Danish, and Portuguese participants toward teaching students with learning and physical disabilities. In another study, Campbell and Gilmore (2003) investigated 274 preservice physical education students at a large Australian university. These researchers examined whether favorable changes in attitudes towards children with Down syndrome and inclusion could be fostered by combining formal instruction with structured fieldwork experiences. Campbell and Gilmore reported that after a 13-week semester of providing the participants with formal instruction, the



participants not only received more knowledge about Down syndrome, but their attitudes towards disability in general became more positive.

Further, Bartoňová, Kudláček, and Bressan (2003) examined the differences in attitudes between two groups of 60 undergraduate students in the Department of Sports Science at the University of Stellenbosch in the Republic of South Africa. Based on the analyses of the results, there was no significant difference in the attitudes between the two groups. In similar study conducted in the Greece, Papadopoulou, Kokaridas, Papanikolaou, and Patsiaouras (2004) examined the attitudes of 93 Greek physical education teachers toward the inclusion of students with disabilities in regular physical education settings. Papadopoulou, et al. reported that the attitudes of these physical educators toward including students with disabilities in their classes were related to the level of knowledge that the teachers believed they have about the special needs of the students with disabilities. Moreover, Greek physical educators in this study also believed that the inclusion cannot be successful with the lack of support services.

### **General Education in Saudi Arabia**

#### **Historical Background**

Saudi Arabia is considered one of the international countries that believes education can determine the future of the country. Therefore, organized educational program are provided for their citizens which is free and high quality education for all students at all levels including elementary, middle and high schools, and the universities (Ministry of Education, 2003). Education in Saudi Arabia has been one of the first and foremost

benefits accompanying the development of the modern State of Saudi Arabia. The Directorate of Education was established in 1925 (Saudi Arabian Cultural Mission, 2006). In 1953, the Ministry of Education developed a quality level educational system led by King Fahad Ben Abdulaziz who was the first minister of Education. King Fahad guided the ministry to open numerous additional public schools across the country. The advancements in education occurred at such a fast rate, which made the Ministry of Education develop many "school districts" in different regions in Saudi Arabia to help the Ministry in some of its responsibilities. For example, in 1958, Saudi Arabia approved a standardized educational system that provided for a 6-year elementary, a 3-year intermediate, and a 3-year secondary cycle with a separate higher education program. According to the Saudi Arabian Cultural Mission (2006):

National development plans stressed a basic philosophy for the successful modernization of the Kingdom of Saudi Arabia. This philosophy was based on two major principles: (a) developing needed human resources through education and training, and (b) building a comprehensive economic infrastructure. Due to their importance to the National Development Plans, human resources development along with infrastructure, economic resources and social resources, including education, were given high priority (p. 1).

Since the establishment of the Ministry of Education, Saudi Arabia began building several universities to educate Saudi Arabian people in many fields. Most of these universities, such as King Abdul-Aziz University, King Saud University, King Faisal

University, and Taibah University provide various special education majors in their educational departments. Those universities are still in the process of developing special education departments to prepare future teachers to be successful teaching students with disabilities (Royal Embassy of Saudi Arabia, 2008). The Ministry of Education also helps new teachers by providing them special programs, and offering bilingual and/or special training, as well as, providing facilities for students with special needs.

### **Special Education in Saudi Arabia**

As many countries, special education in Saudi Arabia focuses on teaching students with disabilities. Under the Saudi Labor and Workman Law (Article 51), a “person with disability” is defined as “any person whose capacity to perform and maintain a suitable job has actually diminished as a result of a physical or mental infirmity” (Gladnet Collection, 2002, p. 7).

### **Historical Background**

The Ministry of Education began a special education program in 1960 with opening Al-Noor Institute in Riyadh. Al-Noor Institute was the first governmentally supported training institute for male students who were blind. Four years later, the Ministry of Education opened the first school for girls who were blind and the Amal Institute in Riyadh for students with hearing impairments. This institute provided deaf children with education, training, and care. By this time, resources for students who were blind had expanded to five institutes (Al Ahmadi, 2009; Saudi Arabian Cultural Mission 2006).

The first institute for children with intellectual disabilities was the Al-Tarbiyah Al Fikriyah Institute. This institute opened in 1971 for both girls and boys. There has been a steady growth of resources for students with disabilities as new institutions are opened in different geographic locations according to the needs of each province. According to Saudi Arabian Cultural Mission (2006) "Schools for students with disabilities have increased from one school in 1960, to 27 schools in 1987, and most recently to 54, including 10 schools for students who were blind, 28 schools for the deaf students, and 16 schools for intellectual disabilities." (p. 9).

For the policies on disabilities, a report by Japanese evaluation agencies for special education in Saudi Arabia in 2002, reported that based on the Islamic Sharia law in Saudi Arabia, the country highlights human rights, particularly the rights of persons with disabilities to live with dignity and benefit from welfare. The focus of the government remains on individuals with disabilities since the initiation of its social and economic development plans two decades ago, and the government continues to provide modern and appropriate welfare means for all individuals with disabilities to help them become familiar with Saudi society, the environment, and life by taking into consideration their intellectual, psychological, physical, and other functional needs (Al Ahmadi, 2009; Gladnet Collection, 2002).

## **Attitudes of Physical Educators in the United States Toward the Inclusion of Students with Disabilities**

Barros and Elia (1998) defined attitude as an individual's prevailing tendency to respond favorably or unfavorably to an object (person or group of people, institutions or events). Attitudes may be positive (values) or negative (prejudice). Negative attitudes towards individuals with disabilities are the biggest challenge for them. Moreover, teacher's attitude is one of the most important factors that help determine the success of classes that includes students with disabilities. Even though inclusion is known as an important innovation, numerous studies have been conducted to analyze what teachers think about the processes of how inclusion is effectually designed and implemented (Ammah, 2001; Combs & Elliott, 2010; Downs & Williams, 1994; Rizzo 1986; Rizzo, 1993; Rizzo & Vispoel, 1991; Rizzo & Wright, 1987; Sherrill & Tripp, 1991).

Studies related to attitude in both general and physical education have grown increasingly popular over the past 20 years (Block & Obrusnikova, 2007; Folsom-Meek & Rizzo, 2002; Kozub & Lienert, 2003). This research has grown because of the belief that the teacher's attitude directly affects the successful inclusion of children and youth with disabilities into general and physical education classes (Elliott, 2008; Hodge & Jansma, 2000; Rizzo & Vispoel, 1991). In the United States, researchers also have reported that the implementation of the inclusion concept in physical education classes can positively effect learning for both students with and without disabilities (Block &

Zeman, 1996; Combs & Elliott, 2010; Patrick, 1987; Rowe & Stutts, 1987; Schoffstall & Ackerman, 2007).

Teachers' attitudes towards teaching students with disabilities have been studied, and the majority of researchers in the United States, have suggested that a positive attitude towards inclusion was necessary for the successful inclusion of students with disabilities into general physical education classes (Aloia, Knutson, Minner, & Von Seggren, 1980; Elliott, 2008; Hodge & Ammah, 2005; Minner & Knutson, 1982; Morisbak, 1990; Rizzo, 1984; Rizzo & Vispoel, 1991; Rizzo & Wright, 1987; Sherrill, 1994; Sherrill & Tripp, 1991). Physical education classes are considered a first step for inclusion because students with and without disabilities interact during this time more than in any other academic area (Craft, 1994).

To determine the techniques to improve the attitudes of physical educators toward teaching students with disabilities, researchers have studied the relationships between attitudes and a variety of student and teacher related factors. Minner and Knutson (1982) reported that the grade level of both students with and without disabilities is also an essential factor to consider in the inclusion process. Physical educators' attitudes toward teaching students with disabilities are viewed more positively in lower grade levels than in higher grade levels (Rizzo & Vispoel, 1991). Other teacher-related factors that have been reported as important include self-perceptions of their ability in teaching students with disabilities (Patrick, 1987); educational preparation, such as coursework or inservice

training in special education or adapted physical education (Rizzo, 1993); and experience in teaching students with disabilities (Schoffstall & Ackerman, 2007).

In addition, physical educators who possess a higher level of perceived teaching competence (Rizzo & Wright, 1987); and more experience in teaching students with disabilities (Marston & Leslie, 1983; Schoffstall & Ackerman, 2007) are more likely to develop positive attitudes towards teaching students with disabilities in general physical education classes. According to Shaver, Curtis, Jesunathadas, and Strong (1989), attitudes toward teaching students with disabilities may be improved by using the following four strategies: information, direct contact with students with disabilities, persuasion, and experience. Some of these strategies were successfully incorporated in numerous studies. For example, information strategies were used in the studies by Hodge and Ammah (2005); Jansma and Shultz (1982); Patrick (1987); and Rowe and Stutts (1987). Direct contact strategies were used in the studies by Chen and Jin (2006); Papadopoulou (2004); Patrick (1987); and Rowe and Stutts (1987).

Universities, schools, and other academic institutions are responsible for preparing physical educators to have positive attitudes toward teaching students with disabilities (Schoffstall & Ackerman, 2007). Students in physical education majors who receive greater preparation programs and experiences working with students with disabilities tend to have more confidence and more favorable attitudes towards working with special education students. Rizzo and Kirkendall (1995) explained which systematic interventions that incorporate a multifaceted approach of information, various experience,

direct contact, and persuasion were needed to bring out positive results on attitudes toward teaching students with disabilities. In addition, an emphasis on needing skills and educational experiences that highlight the similarities of students with disabilities, such as those with learning disabilities and behavior disorders to those students without disabilities would also support positive attitudes (Rizzo & Kirkendall, 1995; Rizzo & Vispoel, 1991; Schoffstall & Ackerman, 2007).

### **Attitudes of Teachers in Saudi Arabia Toward the Inclusion of Students with Disabilities**

In Saudi Arabia, there is a paucity of studies related to teacher attitudes toward teaching students with disabilities. The inclusion concept in Saudi Arabia has been implemented in some educational environments a few years ago with students with mild disabilities. Al Ahmadi, (2009) reported that both general and special education teachers did not have enough training to manage the behaviors of students with disabilities, especially those with learning disabilities. In contrast, Zamzami (2005), another Saudi researcher, examined the attitudes of preservice physical education teachers toward teaching motor skills to students with disabilities in inclusive classrooms in Saudi Arabia. Zamzami reported that preservice physical education teachers had positive attitudes toward teaching motor skills to students with emotional and behavioral disorders.

These researchers focused on particular areas regarding attitudes (i.e., attitudes of general and special educators, and attitudes of preservice physical education students toward teaching motor skills). The researchers did not compare the attitudes of their



participants to other participants from various countries who have different factors (e.g., religion, cultures, educational setting, experience with individuals with disabilities).

### **Attitudes of Preservice Physical Educators**

Preparing general physical educators to teach students with disabilities is a very important part of the appropriate application of the inclusion concept. One of the most significant factors that produce successful inclusion in the physical education programs is the attitude of physical educators toward teaching students with disabilities (Hodge & Ammah, 2005; Sherrill & Tripp, 1991; Stewart, 1988). Heikinaro-Johansson and Sherrill (1994) and Sherrill (1994) described attitudes as a "starting point" for success. Because of the developing strategies at the university level is the first step to prepare future physical educators to work with students with disabilities (Hodge, Davis, Woodard, & Sherrill, 2002; Patrick, 1987; Rizzo & Kirkendall, 1995; Roswal, 1988; Rowe & Stutts, 1987; Sherrill, 1988; Sherrill & Tripp, 1991).

This is important since many researchers have reported that there are mixed feelings from undergraduate students toward teaching students with disabilities (Kowalski & Rizzo, 1995). Stewart (1991) and Schoffstall and Ackerman (2007) reported that future physical educators had positive attitudes toward teaching students with disabilities, while Engelbrecht (2003) and DePauw and Goc Karp (1990) reported that future physical educators had negative attitudes toward teaching students with disabilities in their general physical education classes. Aufsesser (1982) and Hodge, Davis, Woodard, and Sherrill (2002) compared the attitudes of undergraduate physical educators to special educators

and reported no significant differences among the groups. Further, DePauw and Goc Karp (1994b) reported that the attitudes of physical educators toward teaching students with disabilities were more positive than special educators.

### **Attitudinal Change of Physical Educators**

Downs and Williams (1994) reported that future teachers showed low perceived competence toward teaching individuals with disabilities. Older students (seniors) expressed more negative attitudes than their younger classmates (DePauw & Goc Karp, 1990). Downs and Williams (1994) also reported that women held more favorable attitudes than men. However, there was no difference in the attitudes by gender reported in the study by DePauw and Goc Karp (1990). Education preparation programs can also encourage future teachers to have more positive attitudes toward teaching students with disabilities. There are numerous researchers who have administered attitudes surveys of physical educators toward teaching students with disabilities and how attitudes can be improved by providing successful programs (Hodge & Ammah, 2005; Hodge, Davis, Woodard, & Sherrill, 2002; Jansma & Shultz, 1982; Patrick, 1987; Rizzo & Kirkendall, 1995; Rizzo & Vispoel, 1991; Stewart, 1990). While the interventions, statistical designs, and assessment procedures varied across the studies, significant improvements in attitudes were reported in all the studies. Researchers of these studies reported that positive attitudes can be developed within educational institutions by providing physical educators with appropriate coursework, training, and experience (Schmidt-Gotz, Doll-Tepper, & Lienert, 1994).

One approach that can impact on positive student attitudes is the development of an infusion-based curriculum model (Barrette, Holland Fiorentino, & Kowalski, 1993; Bartoňová, Kudláček, & Bressan, 2007; DePauw & Goc Karp, 1994a; Lepore & Kowalski, 1992). The fundamental principle of infusion is that specialized courses in adapted physical education serve an important role in teacher preparation programs (Shaver et al., 1987). Nevertheless, an infusion-based curricular model integrates information about individuals with disabilities throughout the curriculum (Rizzo & Kowalski, 1995). Adelphi University provides the infusion based curriculum which is a model in which theoretical constructs called themes are systematically interwoven through skill, activity, and lecture courses. One of the themes focused on concepts, knowledge, and professional attitudes toward students with disabilities.

According to Rizzo and Kowalski and (1995):

Information about individuals with disabilities is infused into professional preparation lectures (e.g., Foundations of Physical Education Motor Learning, Elementary, and Secondary Methods) and activity courses (e.g., tennis methods, tumbling methods, basketball methods). Infusion in activity courses focuses on activity-based experiences in a variety of sport-related contexts (p. 196).

### **Evaluation of Studies Related to Inclusion, Attitude, and Physical Education**

The *Strength of Recommendation Taxonomy* (SORT; 2004) was used to evaluate individual research articles, as well as the strength of recommendation for a body of evidence of all studies that involved general physical education, attitudes, and teacher'

preparation. SORT specifically involves a systematic review of the literature, determination of individual literature and the body of all pertinent literature, and recommendation for sound educational practices. The evaluation should address the three key elements: quality, quantity, and consistency of evidence. The following terms are derived from the SORT.

### **Systematic Review**

Systematic review uses a taxonomy which was incorporated in the present investigation that involves a critical evaluation of existing evidence that focuses on clinical questions, including a comprehensive literature search, assessment of the quality of studies, and reporting the findings in a organized manner. Research evidence was also presented in publications of original research and involves the collection of original data or the systematic review of other original research publications.

### **Level of Evidence**

Level of evidence refers to both individual studies and the quality of evidence from multiple studies about a specific question or the quality of evidence supporting an intervention. There are three levels of recommendations in this taxonomy to assess individual studies which are: Level 1, based on consistent and good quality patent-oriented evidence; Level 2, based on consistent and limited quality patent-oriented evidence; and Level 3, based on typical practice, opinion, prevention, or screening.

## **Strength of Recommendations for Physical Education Oriented**

These recommendations are typically based on the body of evidence. This approach considers the types of outcomes measured by the studies, the number, consistency, and logic of the evidence, and the relationship between the advantages, disadvantages, and cost. There are three grades of strength of the body of evidence in this taxonomy to evaluate studies as a group which are: Grade A is based on consistent and good quality teacher preparation evidence; Grade B is based on consistent and limited quality teacher preparation evidence; and Grade C is based on usual practice, opinion, prevention, or screening.

There are four general types of research methodologies used in the educational field (Council for Exceptional Children, 2005) which are: (a) experimental and quasi-experimental research, (b) correlational, (c) single subject, and (d) qualitative designs. Based on the SORT of taxonomy, the experimental and quasi-experimental research design is a strong design, more so than the other three designs. This is because its indicators are similar to Level 1 of SORT which includes randomization, control and experimental groups, treatment, consistency for the outcome measures, substantiation of the validity of the measures, and assessment of the quality of implementation.

Single-subject Research design is also a strong design, more than correlation and qualitative designs. This design is similar to Level 2 of the SORT because most the time there is no random selection of the population in this design. The control group designs can be used to further demonstrate external validity of findings established through

single-subject methodology. In addition, this design is still stronger than correlation and qualitative studies because it has a baseline and intervention.

Correlational studies are quantitative, multi-subject designs in which participants have not been randomly assigned to treatment conditions and it may not be a very strong design. In fact, based on the SORT, this design can be evaluated as a Level 2 or 3. Tests of this design are also not reliable or unreliable; therefore, the researchers who used this design should provide reliability coefficients of the scores for the data being analyzed even when the focus of their research is not psychometric.

The qualitative design is considered a Level 3 in the SORT because there is no treatment or random selection in this design. In addition, this design is based on usual practice, opinion, prevention, or screening; therefore, it is a weak design. However, this design may very important for researchers who try to determine issues such as the effect of inclusion, physical educators' attitude, and physical educators' preparation.

Using the SORT, Saudi Arabia (Table1), the United States (Tables 2-15), and other countries (Tables 16-26) resource literature related to inclusion, physical educators' attitudes, and physical educators' preparation were individually analyzed in this study. The results of the individual analyses are presented in the next pages. After the completion of the individual evaluation, the body of the literature evaluation was provided.

Table 1

*Systematic Review of Attitudes Literature: Zamzami (Saudi Arabia)*

| Auth/Lvel | Design/Data collection | Population  | Outcome/ Intrvn   | Summary of the Results  |
|-----------|------------------------|---|---|---|
|           | Qual:<br><br>Survey    | 403 PPE from the College of Physical Education and Sport in Riyadh, Saudi Arabia.<br><br><b>Gender</b><br>403 males<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: NO<br>Experience: YES | <b>Outcome:</b><br><br>To examine the attitude of PPE teachers toward teaching gross motor skills to students with EBD, LD, and ID in physical educational settings in Saudi Arabia.<br><br><b>Intrvn:</b><br><br>Each participant completed the PEATH-II survey one time after the researcher translated from English to Arabic. | Based on the results, preservice physical education teachers had positive attitudes toward teaching motor skills to students with EBD more than, students with LD and ID. |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic; PPE = Preservice physical education; EBD = Emotional Behavior Disorder; LD = Learning Disability; ID = Intellectual Disability; PEATID-III = *Physical Educators' Attitude Toward Teaching Individuals with Disabilities*

Table 2

*Systematic Review of Attitudes Literature: Patrick (United States)*

| Auth/Lvel           | Design/Data collection | Population  | Outcome/ Intrvn   | Summary of the Results   |
|---------------------|------------------------|---|---|--|
| Patrick (1987)<br>I | Quan:                  | 179 undergraduate student physical education majors.  | <b>Outcome:</b><br>Determine which physical education majors' attitudes toward persons with disabilities improved after taking an adapted physical education course.  | Based on the results, the adapted physical education class was successful in improving attitudes toward persons with disabilities.   |
|                     | Quasi-Experimental     | <b>Gender:</b><br>107 females<br>72 males<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: NO<br>Experience: YES | <b>Intrvn:</b><br>Pretest and posttests were administrated in this study. Solomon four-group design was selected for this research study to identify a situation in which the pretest may sensitize individuals to the treatment.<br><br>The design required that some participants take the pretest and posttest while other participants take a posttest only. There were 53 females and 39 males in the treatment groups, and 54 females and 33 males in the control groups. | The interaction between exposure to the pretest and treatment was also significant, indicating that the pretest did sensitize the students to the course content.<br><br>The gender effect was not be statistically significant by itself or in interaction with the other design factors.<br><br>Age also was not statistically significant in this analysis. |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic.



Table 3

*Systematic Review of Attitudes Literature: Block & Zeman (United States)*

| Auth/Lvel             | Design/Data collection | Population  | Outcome/ Intrvn   | Summary of the Results  |
|-----------------------|------------------------|---|---|---|
| Block, & Zeman (1996) | Quan:                  | 55 6th-grade physical education classes students from a midwestern city middle School.  | <b>Outcome:</b><br>To measure the impact of including three 6 <sup>th</sup> grade students with severe disabilities who were given support services into a general physical education class.  | Based on the results, there were no differences in skill improvement between the two groups except in dribbling, which favored the control group.   |
|                       | Quasi-Experimental     | <b>Gender:</b><br>26 females<br>29 males<br>3 students with severe disabilities<br>unknown gender<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic Preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: NO<br>Experience: YES | <b>Intrvn:</b><br>Pretest and posttest were used in this study.<br><br>Basketball skill improvement in passing, shooting, and dribbling during a 3 1/2-week basketball unit and attitudes toward students with disabilities were compared between the 2 groups (experimental and control).<br><br>All students participated in the sport skills pretest and posttest as part of their regular physical education program. | Experimental group showed significantly greater pretest scores in general and sport specific attitudes compared to control group, but there were no differences in gain scores for either general or sport-specific attitude. |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic.

Table 4

## Systematic Review of Attitudes Literature: Block (United States)

| Auth/Lvel    | Design/Data collection | Population  | Outcome/ Intrvn  | Summary of the Results  |
|--------------|------------------------|---|--|---|
| Block (1995) | Quan:                  | 44 sixth graders, 10 to 12 years old, representing three different classes at a middle school in a suburb of Chicago.   | <b>Outcome:</b><br>To describe the development and validation of the CAIPE-R inventory survey; an inventory designed to assess attitudes of children without disabilities toward including peers with disabilities in general physical education.  | Based on the results, the CAIPE-R was a valid and reliable instrument for measuring attitudes of children without disabilities toward including children with disabilities in general physical education classes. |
|              | Survey                 | <b>Gender:</b><br>24 females<br>20 males  | <b>Intrvn:</b><br>Students in three classes were examined. One of them had a student with autistic behaviors in its physical education class; while children in the other two classes also had peers with various disabilities in previous physical education classes.   |   |
|              |                        | <b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic Preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | Participants completed the CAIPE-R inventory which involves a description of a student with disabilities. Users responded to each statement on a 4-point Likert scale. Construct validity using factor analysis, internal consistency, and test-retest reliability was determined on a sample of 44 sixth graders. |   |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntv = Intervention; Demo = Demographic; CAIPE-R = *Children's Attitudes Toward Integrated Physical Education-Revised* survey.

Table 5

*Systematic Review of Attitudes Literature: Rizzo & Kirkendall (United States)*

| Auth/Lvel <sup>1</sup>         | Design/Data collection | Population  | Outcome/ Intrvn   | Summary of the Results   |
|--------------------------------|------------------------|---|---|--|
| Rizzo & Kirkendall (1995)<br>2 | Quan:                  | 174 undergraduate students from a northeastern state university enrolled in both adapted physical education and physical education for children.  | <b>Outcome:</b><br>To assess the relationship between selected demographic attributes (gender, age, year in school, experience with students with disabilities, and academic preparation regarding individuals with disabilities) and attitudes of future physical educators toward teaching students labeled educable EMR, LD, and BD. | Based on the results, perceived competence and academic preparation regarding individuals with disabilities were the best predictors of favorable attitudes in general, and for EMR and LD.                  |
|                                | Correlations           | <b>Gender:</b><br>65 females<br>109 males<br><br><b>Topics Addressed:</b><br>Teaching:<br>YES<br>Student learning:<br>YES<br>need for Academic Preparation:<br>YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | <b>Intrvn:</b><br>Seventy-seven were enrolled in four different sections of an adapted physical education course, and 97 were enrolled in four different sections of a physical education for children course.<br><br>Participants completed the survey of PEATH-III one time in the first class day of a 16-week semester.             | Results also showed that for BD, age and year in school were the best predictors of favorable attitudes.<br><br>There is a need to promote positive attitudes toward teaching individuals with disabilities. |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic; EMR = \*Mentally retarded; LD = Learning disabled; BD = Behaviorally disordered; PEATH-III = *Physical Educators' Attitude Toward Teaching Individuals with Disabilities*.

<sup>1</sup> The researcher in this study used the term of Mental Retardation. However, the new terminology of this disability is Intellectual Disability (ID).

Table 6

*Systematic Review of Attitudes Literature: Rizzo & Kirkendall (United States)*

| Auth/Lvel <sup>1</sup>         | Design/Data collection | Population  | Outcome/ Intrvn  | Summary of the Results   |
|--------------------------------|------------------------|---|--|--|
| Rizzo & Kirkendall (1995)<br>2 | Quan:                  | 94 Physical educators teaching in a northeastern state who attended a state conference of the Association for Health, Physical Education, Recreation, and Dance.  | <b>Outcome:</b><br>To examine the relationship between selected attributes of physical educators and their attitudes toward teaching students labeled educable EMR, LD, and BD.  | Based on the results, physical educators' perceived competence in teaching students with disabilities was the best predictor of attitudes. |
|                                | Correlations           | <b>Gender:</b><br>46 females<br>48 males<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic Preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | <b>Intrvn:</b><br>Each participant completed the PEATH-II survey one time.<br><br>39% held a bachelor's degree, 60% held a master's degree, and 1 % held a doctorate. The vast majority, 88%, had one or more courses in physical education for students with disabilities.<br><br>26% had coursework in special education while 74% did not. A total of 87% had taught students with disabilities at some time during their career; 21% of the participants stated that they were not at all competent; 55% stated that they were somewhat competent; and 24% stated that they were very competent. | A repeated measures ANOVA indicated that LD students were viewed more favorably than educable MR and BD.                                   |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic; EMR = \*Mentally retarded; LD = Learning disabled; BD = Behaviorally disordered; PEATH-II = Physical Educators' Attitude Toward Teaching Individuals with Disabilities.

<sup>1</sup>The researcher in this study used the term of Mental Retardation. However, the new terminology of this disability is Intellectual Disability (ID).

Table 7

*Systematic Review of Attitudes Literature: Combs & Elliott (United States)*

| Auth/Lvel | Design/Data collection | Population   | Outcome/ Intrvsn   | Summary of the Results  |
|-----------|------------------------|--|--|---|
|           | Qual:                  | 4 physical educators   | <b>Outcome:</b><br>To identify two practicing teachers with positive attitudes towards inclusion of students with mild to moderate disabilities, and two teachers with negative attitudes towards inclusion of students with disabilities using PEATID, and (b) to investigate, through in depth interviews, how their attitudes were formed and how it affected their teaching. | Based on the results, physical education teacher education training programs should develop programs of study that include adapted physical education classes.      |
|           | Survey                 | <b>Gender:</b><br>3 females  |  |   |
|           | Interview              | 1 males  |  |   |
|           |                        | <b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic Preparation: YES | Teachers with positive attitudes: (a) identified multiple focus areas and objectives in their teaching, (b) developed written lesson plans that incorporated several different teaching styles, (c) had received training in modifying and adapting physical education for students with disabilities, and (d) desired their students to be successful in their classes.         | Preservice teachers should be taught how to plan, modify, and deliver developmentally appropriate activities for children and youth with and without special needs. |
|           |                        | <b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES      |  |   |
|           |                        |  | <b>Intrvsn:</b><br>Participants completed the PEATID-III survey and then were interviewed.   |   |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic; PEATID-III = *Physical Educators' Attitude Toward Teaching Individuals with Disabilities*.

Table 8

*Systematic Review of Attitudes Literature: Aufesser (United States)*

| Auth/Lvel            | Design/Data collection     | Population  | Outcome/<br>Intrvn  | Summary of the Results   |
|----------------------|----------------------------|---|---|--|
| Aufesser (1982)<br>3 | Qual:<br><br>questionnaire | 704 Physical educators from 40 colleges and universities across 21 states nationwide in the United States.  | <b>Outcome:</b><br>Examined the attitudes of future physical educators toward teaching students with disabilities.  | Based on the results, female participants with teaching experiences exhibited significantly higher attitude scores than females and males with no such experiences, and males with experience teaching individuals with disabilities.  |
|                      |                            | <b>Gender</b><br>Males<br>Females   | <b>Intrvn:</b><br>PEATID-III was used in this study.  | Females' perceived comfort level was significantly higher, that is, with less ambivalence, than for males toward teaching students with physical disabilities.   |
|                      |                            | Unknown Numbers<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic Preparation: YES<br><br><b>Demographic s:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | Attitude differences were examined as a function of participants' gender, ethnic status, course work preparation, academic major, and experience teaching individuals with disabilities.<br><br>Examined were participants' perceived comfort levels toward teaching students with sensory and physical disabilities. | No gender difference was reported toward teaching pupils with sensory impairments. Participants with experience teaching individuals with disabilities exhibited higher attitude scores than those with no such experiences.<br><br>Participants' ethnic status, academic major, and course work preparation were insignificant factors with respect to overall attitude scores toward teaching students with disabilities.<br><br>Coursework preparation was reported significant regarding participants' perceived comfort level teaching students with sensory and physical disabilities. |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic; PPE = Preservice Physical Education; PEATID-III = Physical Educators' Attitude Toward Teaching Individuals with Disabilities III

Table 9

*Systematic Review of Attitudes Literature: Block & Rizzo (United States)*

| Auth/Lvel             | Design/Data collection | Population   | Outcome/ Intrvn  | Summary of the Results   |
|-----------------------|------------------------|--|--|--|
| Block, & Rizzo (1995) | Qual:                  | 150 physical education teachers.   | <b>Outcome:</b><br>To assessed the relationship between attitudes and attributes (teaching assignment, teaching level, adapted physical education coursework, special education course work, years teaching students with disabilities, quality of teaching experience, and perceived competence). | Based on the results, most teachers did not believe students with profound disabilities should be taught in regular classes. |
|                       | Survey                 | <b>Gender:</b><br>Unknown<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | <b>Intrvn:</b><br>Participants completed the survey of PEATH-III.  |  |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic; PEATH-III = *Physical Educators' Attitude Toward Teaching Individuals with Disabilities III*.

Table 10

*Systematic Review of Attitudes Literature: Block & Rizzo (United States)*

| Auth/Lvel              | Design/Data collection | Population   | Outcome/ Intrvn  | Summary of the Results   |
|------------------------|------------------------|--|--|--|
| Block., & Rizzo (1995) | Qual:                  | 9 participants   | <b>Outcome:</b>  | Based on the results, there were "good days" and there were "bad days."  |
|                        | Survey                 | Grades 5 and 6.  | To add the voices of students with physical disabilities to that of teachers, parents, classmates, administrators, and researchers in the discussion of inclusive physical education by asking the question: What is the experience and meaning of inclusive physical education from the perspective of students with physical disabilities. | At one point in the focus group sessions, the participants were asked to ascribe a color to their physical education experiences.                                      |
|                        |                        | <b>Gender:</b><br>3 females<br>6 males   | <b>Intrvn:</b><br>Focus group interviews, field notes, and participant drawings.   | Some participants chose color like purple because they think it is a nice color which means nice day. However, purple can also be a darker color so you have bad days. |
|                        |                        | <b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES | Good days were revealed in the themes of sense of belonging, skillful participation, and sharing in the benefits.  | Some participants said, "Rainbow" which mean sometimes it's good and sometimes it's bad.   |
|                        |                        | <b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES      | Bad days were overshadowed by negative feelings revealed in the themes of social isolation, questioned competence, and restricted participation.   |  |
|                        |                        |  | Participants were asked to ascribe a color to their physical education experiences.  |  |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic; PEATID-III = *Physical Educators' Attitude Toward Teaching Individuals with Disabilities III*.



Table 11

## Systematic Review of Attitudes Literature: Kim (United States)

| Auth/Lvel                                  | Design/Data collection | Population  | Outcome/ Intrvn  | Summary of the Results   |
|--|------------------------|---|--|--|
| Qual:<br><br>Observation<br><br>Interviews |                        | 6 students with autism from four schools in North Central Texas. (5 participants from an elementary school & 1 from early childhood center).  | <b>Outcome:</b><br>To investigate the perceptions of general physical educators, adapted physical educators, facilitators, and parents about the physical education programs for students with autism; and to investigate ALT of students with autism both an integrated and a segregated physical education class.  | Based on the results, most interviewees stated that the GPE educators lacked knowledge and skills to effectively teach students with autism than APE teachers, and required training was one of the major needs. |
|  |                        | <b>Gender:</b><br>6 males   |  |  |
|  |                        | <b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | <b>Intrvn:</b><br>General physical educators, adapted physical educators, facilitators, and parents were interviewed about the physical education programs for students with autism.<br><br>ALT-PE survey were collected a total of 6 times peer student: (a) 3 items in the integrated general PE classes with minimum of 2 days of interval period, and (b) 3 items in one-to-one APE classes. | For the parents and facilitators, 3 parents and 4 facilitators, expect that greatest potential benefit for students with autism from the GPE classes was an increased chance to develop social skills.           |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvvn = Intervention; Demo = Demographic; GPE = General physical education; APE = Adapted physical education; ALT = Academic learning time; PE = Physical Education.

Table 12

*Systematic Review of Attitudes Literature: Kelli Hackney (United States)*

| Auth/Lvel      | Design/Data collection | Population   | Outcome/ Intrvn  | Summary of the Results  |
|----------------|------------------------|--|--|---|
| Hackney (1999) | Qual:                  | 151 elementary schools physical educators teachers   | <b>Outcome:</b><br>To determine the effect of gender, experience, level of education on perceptions and knowledge of the inclusion process of regular elementary school physical educators from a large Texas school district. | Based on the results, there was no significant effect of gender, experience, and level of education on the perceptions and knowledge of the participants. |
|                | Survey                 | <b>Gender:</b><br>72 females<br>109 males<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | <b>Intrvn:</b><br>PEPII survey was used in this study.<br>The participants received and returned the survey via mail.  |   |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic; PEPII = *The Physical Educators' Perception of Inclusion Inventory*.

Table 13

*Systematic Review of Attitudes Literature: Boswell (United States)*

| Auth/Lvel      | Design/Data collection | Population   | Outcome/Intrvn   | Summary of the Results   |
|----------------|------------------------|--|--|--|
| Boswell (1999) | Qual:                  | 23 elementary adapted physical educators (APE).  | <b>Outcome:</b><br>To compare the perceptions and knowledge of general and adapted physical educators toward the inclusion elementary students with disabilities in an inclusive physical education. | Based on the results, there was no significant difference between the knowledge and perceptions of adapted and general physical educators toward the inclusion elementary students with disabilities in an inclusive physical education. |
|                | Survey                 | 23 elementary general physical educators (GPE).<br><br><b>Gender:</b><br>APE participants<br>16 females<br>7 males<br><br>GPE participants<br>19 female<br>4 male<br><br><b>Topics Addressed:</b><br>Teaching:<br>YES<br>Student learning:<br>YES<br>Need for academic preparation:<br>YES<br><br><b>Demographic:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | <b>Intrvn:</b><br>PEPII survey was used in this study. The participants received and returned the survey via mail.   |  |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic; PEPII = *The Physical Educators' Perception of Inclusion Inventory*

Table 14

*Systematic Review of Attitudes Literature: Ammah & Hodge (United States)*

| Auth/Lvel                 | Design/Data collection | Population   | Outcome/ Intrvn  | Summary of the Results   |
|---------------------------|------------------------|--|--|--|
| Hodge & Ammah (2005)<br>2 | Qual:                  | 2 experienced GPE teachers at separate suburban high schools.  | <b>Outcome:</b><br>To describe the beliefs and practices of general physical education (GPE) teachers at the high school level on inclusion and teaching students with severe disabilities.  | Based on the results, during their PETE training, these teachers had benefited from exposure to teaching strategies for working with students with severe disabilities through coursework and practicum experiences. |
|                           | Interview              | <b>Gender:</b><br>2 males<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | <b>Intrvn:</b><br>The participants were trained by PETE program which include students with severe disabilities in a general physical education class.<br><br>The research paradigm was descriptive using a combination of naturalistic observation and interviewing.<br><br>Data were collected from 18 lessons using field notes, wireless microphones, a video camera, an observation instrument, and interviews. |  |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvn = Intervention; Demo = Demographic.

Table 15

*Systematic Review of Attitudes Literature: Butler (United States)*

| Auth/Lvel          | Design/Data collection | Population   | Outcome/ Intrvsn  | Summary of the Results  |
|--------------------|------------------------|--|---|---|
| Butler (2004)<br>3 | Qual:                  | 1 girl with DS and MR  | <b>Outcome:</b><br>To describe the social interactions of students with and without disabilities in a general physical education program.   | Based on the results, students with and without disabilities engaged in mostly positive (e.g., friendly, cooperative) yet infrequent social interactions. Overall findings lend supported inclusive general physical education practices. |
|                    | Case study             | 1 boy with severe juvenile scoliosis   | <b>Intrvsn:</b><br>Traditional lead-up games, activity stations, and group activities were taught on a daily basis for 53 min per class session in the spring of the school year.   |   |
|                    |                        | 16 classmates without disabilities at a rural middle school.   | This study examined boys and girls in separate classes. The boy with severe juvenile scoliosis was included in the boys class; while the girl with DS & MR was included in the girls class. Both groups were engaged in different activities. |   |
|                    |                        | <b>Gender:</b><br>9 females<br>7 males   |   |   |
|                    |                        | <b>Topics Addressed:</b><br>Teaching:<br>NO<br>Student learning:<br>NO<br>Need for academic preparation:<br>NO | The primary data collection method was nonparticipant observations. The researcher also quantified students' social behaviors using the AIPE observational system.  |   |
|                    |                        | <b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES            | In the end of the semester, the 2 participants with disabilities were interviewed related to what the lead researcher had observed.   |   |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic; AIPE = *Analysis of Inclusion Practices in Physical Education*; DS = Down syndrome; MR = \*Mental Retardation.

*Systematic Review of Attitudes Literature: Kodish et al. (United States)*

| Auth/Lvel  | Design/Data collection | Population  | Outcome/ Intrvn   | Summary of the Results  |
|--|------------------------|---|---|---|
| Kodish, Hodges Kulinna, Martin, Pangrazi, & Darst (2006) | Quan:                  | 114 children from 2 fifth & 2 sixth-grades classes within an elementary school in the southwestern region of the United States.   | <b>Outcome:</b><br>To determine (a) if the TPB predicted intentions of individuals with and without disabilities to be physically active, (b) if the TPB predicted behaviors of individuals with and without disabilities to be physically active, and (c) if significant differences were present in physical activity opportunities between inclusive and non-inclusive elementary physical education classes taught by the same teacher.   | Based on the results, analyses revealed that subjective norm and perceived behavioral control predicted students' intentions to be active, while behavioral intention was the only significant predictor of activity level by step count accrued in physical education classes. |
|  | Correlations           | <b>Gender:</b><br>54 females<br>60 males<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | <b>Intrvn:</b><br>There were 3 classes: C1, C2, & C3. C1 and C3 were physical education classes that had four students with autism included, while C2 and C4 were general physical education classes without students with identified disabilities included.<br><br>There were two instruments in this study: a questionnaire which were administered to assess TPB constructs in relation to being physically active, and electronic pedometers which were used to measure physical activity during a half hour physical education classes over a 2-week period. | Finally, the inclusion of students with autism did not significantly affect overall physical activity.  |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvn = Intervention; Demo = Demographic; CAIPE-R = Children's Attitudes Toward Integrated Physical Education-Revised survey.

Table 17

*Systematic Review of Attitudes Literature: Schoffstall & Ackerman (United States)*

| Auth/Lvel                     | Design/Data collection                 | Population  | Outcome/ Intrvn   | Summary of the Results  |
|-------------------------------|--|---|---|---|
| Schoffstall & Ackerman (2007) | Quan:<br><br>Pretest & posttest design | 108 students enrolled in undergraduate adapted physical education courses at a faith-based university.  | <b>Outcome:</b><br>Examine the effects of an undergraduate adapted physical education course on the attitudes of preservice physical educators toward individuals with disabilities.  | Based on the results, there were significant differences between the participant pretest and posttest PEATID-III scores among all disabilities.   |
|                               |  | <b>Gender:</b><br>56 females<br>52 males<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | <b>Intrvn:</b><br>This study was a one group, pretest and posttest design with no control group. A standard adapted physical education curriculum model served as the intervention.<br><br>The researcher recorded the pre- and post-intervention attitudinal scores using the PEATID-III survey. The survey focused on LD, Mild ID, Severe ID, and MD. | There were no significant main effects of the laboratory intervention on the attitude of the participants toward ED and Mild ID.<br><br>There were significant main effects for the laboratory intervention on the attitude of the participants toward students with Severe ID, and LD. |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic; ID = Learning disability; MID = Mild Intellectual disability; ED = Emotional Disturbance PEATID-III = *Physical Educators Attitudes toward Teaching Individuals with Disabilities III*.

Table 18

*Systematic Review of Attitudes Literature: Clark (United States)*

| Auth/Lvel    | Design/Data collection | Population  | Outcome/ Intrvn  | Summary of the Results  |
|--------------|------------------------|---|--|---|
| Clark (1978) | Qual:                  | 218 public high school physical educators, and high school principals.  | <b>Outcome:</b><br>To determine if there was any difference in the attitudes of the high school principles and physical educators toward teaching students with disabilities; determine the major concern of the physical educators; and determine what types of assistance that those teachers would indicate as being most beneficial in helping them integration of students with disabilities in the physical education class. | Based on the results, physical educators who had attended inservice training or workshops with other assistance had better attitude toward teaching students with disabilities.   |
|              | Survey                 | <b>Gender:</b><br>Unknown<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: YES<br>Culture: NO<br>Educational settings: NO<br>Experience: NO | <b>Intrvn:</b><br>The principals completed the instruments of <i>Attitude Toward Disabled Persons Scales</i> . While physical educators participants completed the instruments of <i>Learning Handicapped Integration Inventory and the Attitude Toward Disabled Persons Scales</i> .  | Physical educators and their high school principals had similar attitudes toward teaching students with disabilities.<br><br>The majors concerns of physical educators were the acceptance of the students with disabilities by their peers without disabilities, and the lack of time to handle the students with disabilities properly.<br><br>The types of assistance, was the understanding of history of those students, their abilities and limitations, and provide more teachers aides to assist in working with them in their classes. |
|              |                        |   |  |   |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvrvn = Intervention; Demo = Demographic; PEATID-III = *Physical Educators' Attitude Toward Teaching Individuals with Disabilities III*.



Table 19

*Systematic Review of Attitudes Literature: Lienart, Sherrill, & Myers (United States & Another Country)*

| Auth/Lvel                              | Design/Data collection | Population  | Outcome/ Intrvn  | Summary of the Results   |
|--|------------------------|---|--|--|
| Lienart, Sherrill, & Myers (2001)<br>3 | Qual:                  | 30 regular elementary physical education teachers from the United States & Germany.   | <b>Outcome:</b>  | Based on the results, in both countries, teachers reported concerns at only four of the seven stages of CBAM: personal, management, consequence, and collaboration.                    |
|  | Interview              | <b>Gender:</b><br><br>United States<br>12 females<br>2 males<br><br>Germany<br>9 females<br>7 males   | To conduct a qualitative cross-cultural comparison of the concerns of physical educators in two countries about integration of children with and without disabilities.   | Most concerns focused on behavior management.  |
|  |                        | <b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: NO<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: YES<br>Educational settings: YES<br>Experience: YES | <b>Intrvn:</b><br>The researcher personally interviewed each participant.<br><br>In most cases, interviews were conducted in schools where teachers taught and were supplemented by observations.<br><br>Interviews were approximately 60 min, were tape recorded, transcribed, and then sent to participants for corrections. | The major cultural difference was that DFW teachers reported more personal concerns (uncertainty about everyday demands and competence to meet these demands) than in Berlin teachers. |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvn = Intervention; Demo = Demographic; CBAM = The Concerns-Based Adoption Model. DFW = Dallas Fort Worth area.

Table 20

*Systematic Review of Attitudes Literature: Chen & Jin (Another Country)*

| Auth/Lvel | Design/Data collection | Population   | Outcome/ Intrvn  | Summary of the Results   |
|-----------|------------------------|--|--|--|
|           | Qual:<br><br>Survey    | 77 preservice teachers from Hong Kong and<br>77 preservice teachers from Taiwan.<br><br><b>Gender:</b><br>Unknown<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | <b>Outcome:</b><br>To compare the attitudes of the participants toward including students with disabilities into general PE settings.<br><br><b>Intrvn:</b><br>A 15-item questionnaire (plus five open-ended questions) was used to collect data regarding students' attitudes, opinions, and concerns toward inclusion in Hong Kong and Taiwan.<br><br>Preservice teachers participated in this study, and a <i>t-test</i> was used to compare different attitudes between the two countries. Data analyses focused on: (a) position on inclusion issue between Hong Kong and Taiwan, (b) severity of disability related to inclusion in Hong Kong and Taiwan, (c) types of disability that PE teachers feel more comfortable teaching, and (d) teacher training for inclusion. | Based on the results of the survey, final year students in teacher preparation programs in Hong Kong and Taiwan philosophically support the inclusion concept, although there were many concerns and different opinions regarding the implementation of the inclusion concept. |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvn = Intervention; Demo = Demographic.

Table 21

*Systematic Review of Attitudes Literature: Campbell & Gilmore (Another Country)*

| Auth/Lvel                  | Design/ Data collection | Population  | Outcome/ Intrvn  | Summary of the Results  |
|----------------------------|-------------------------|---|--|---|
| Campbell, & Gilmore (2003) | Quan/ Qual              | 274 preservice education students at a large Australian university participated in the study.   | <b>Outcome:</b><br>Investigate whether favorable changes in attitudes towards individuals with disabilities and inclusion could be fostered by combining formal instruction with structured fieldwork experiences.   | Based on the results, at the end of semester, participants not only acquired more accurate knowledge of Down syndrome, but their attitudes towards students with disabilities in general became more positive, and they reported greater ease when interacting with students with disabilities. |
|                            | Mix design              | <p><b>Gender:</b><br/>Unknown</p> <p><b>Topics Addressed:</b><br/>Teaching: YES<br/>Student learning: YES<br/>Need for academic preparation: YES</p> <p><b>Demographics:</b><br/>Religion: NO<br/>Culture: NO<br/>Educational settings: YES<br/>Experience: YES</p> | <p><b>Intrvn:</b><br/>A questionnaire was constructed to investigate knowledge of Down syndrome, and attitudes towards inclusive education for children with Down syndrome.</p> <p>Participants completed the questionnaire during the first tutorial for a core unit on human development and education. During the 13-week semester, students were provided with formal instruction (a 1-hour lecture and a 2-hour tutorial per week) on human development.</p> <p>Participants were required to undertake fieldwork that involved interviewing 2 members of the community, using the questionnaires, and writing a short fieldwork report (approximately 600-word).</p> |   |

\*2

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvn = Intervention; Demo = Demographic; \*2 = There is no level of Taxonomy for Mix design. However, the Research committees decided that Mixed design equal Level 3 which consider a high level of the SORT because this design has both qualitative and quantitative designs

Table 22

*Systematic Review of Attitudes Literature: Bartoňová, Kudláček, and Bressan (Another Country)*

| Auth/Lvel                                    | Design/Data collection | Population  | Outcome/ Intrvn  | Summary of the Results   |
|--|------------------------|---|--|--|
| Bartoňová, Kudláček, and Bressan (2007)<br>3 | Qual:                  | 60 university students from the Republic of South Africa.   | <b>Outcome:</b><br>To examine the differences in attitudes between two groups of students in the Department of Sport Science at the University of Stellenbosch in the Republic of South Africa toward individuals with disabilities.                           | Based on the results, there was no significant differences in the attitudes between the two groups toward individuals with disabilities. |
|  | Survey                 | <b>Gender:</b><br>44 females<br>16 males  |  |  |
|  |                        | <b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | <b>Intrvn:</b><br>The attitudes of both participants who were specialized in coaching people with disabilities (20 females and 10 males) and participants who were without this specialization (24 females and 6) males were compared by using ATIPDPE survey. |  |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Intrvn = Intervention; Demo = Demographic; ATIPDPE = *Attitudes Toward Teaching Individuals with Physical Disabilities in Physical Education*.

Table 23

*Systematic Review of Attitudes Literature: Downs and Williams (Another Country)*

| Auth/Lvel                      | Design/Data collection | Population   | Outcome/ Intrvn   | Summary of the Results   |
|--------------------------------|------------------------|--|---|--|
| Downs and Williams (1994)<br>3 | Quan:                  | 371 preservice PE students from four European Universities   | <b>Outcome:</b><br>To compare the attitudes of undergraduate students toward the integration of people with disabilities in general physical education classes.   | Based on the results, there is significant difference between respondents with some previous experience in dealing with individuals with either physical or learning disabilities and those without it. Participants with previous experience held less positive attitudes than those without previous experience. |
|                                | Questionnaire          | <b>Denmark</b><br><b>Gender:</b><br>46 females<br>30 males   | <b>Intrvn:</b><br>Questionnaire required the participants to provide information concerning the independent variables of gender, age, courses taken that had dealt specifically with disability, and the extent of any previous experience with individuals with disabilities (defined as any "professional, social, and/or recreation/ sporting practical experiences"). | <b>Attitudes Toward Learning and Physical Disabilities</b><br>Participants held more positive attitudes toward teaching people with physical disabilities than toward teaching people with learning disabilities.  |
|                                |                        | <b>Belgium</b><br><b>Gender:</b><br>40 females<br>246 males  |   | <b>Gender</b><br>Female students held more positive attitudes toward integration than male.  |
|                                |                        | <b>Portugal</b><br><b>Gender:</b><br>38 females<br>74 males  |   | <b>National Origin</b><br>Attitudes of the Belgian participants were significantly more negative than, the attitudes of English, Danish, and Portuguese participants toward teaching students with learning and physical disabilities.   |
|                                |                        | <b>England</b><br><b>Gender:</b><br>49 females<br>66 males   |   |  |
|                                |                        | <b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for Academic Preparation: YES |   |  |
|                                |                        | <b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES      |   |  |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Intrvn = Intervention; Demo = Demographic; PE = Physical education.

## Systematic Review of Attitudes Literature: Papadopoulou et al. (Another Country)

| Auth/Lvel  | Design/Data collection | Population  | Outcome/ Intrv   | Summary of the Results   |
|--|------------------------|---|--|--|
| Papadopoulou, Kokaridas, Papanikolaou, & Patsiaouras (2004)<br>3 | Qual:                  | 93 physical educators working at different schools in Athens.   | <b>Outcome:</b><br>To examine the attitudes of Greek physical education teachers toward the inclusion of students with disabilities in gender physical education settings.   | Based on the results, the attitudes of physical education teachers toward the inclusion of students with disabilities in their general classes were related to the level of knowledge that the teachers believe they have for the special needs conditions; in addition, they doubt that inclusion could be workable, due to the lack of appropriate support services. |
|  | Survey                 | <b>Gender:</b><br>37 females<br>56 males<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES | <b>Intrv:</b><br>Each participant completed the <i>Teacher Integration Attitudes Questionnaire</i> by Sideridis and Chandler (1997). The survey comprised 12 statements that assessed the factors of skills, benefits, acceptance, and support of inclusion. | In the light of the findings, the implementation of concept of inclusion was further being analyzed.   |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntv = Intervention; Demo = Demographic.

Table 25

*Systematic Review of Attitudes Literature: Martin (Another Country)*

| Auth/Lvel          | Design/Data collection | Population  | Outcome/ Intrvn   | Summary of the Results  |
|--------------------|------------------------|---|---|---|
| Martin (2006)<br>2 | Quan:                  | 230 participants from the University in Australia.  | <b>Outcome:</b><br>To describe the attitudes and determine predictors of intentions in preservice teachers in Australia toward inclusion of students with physical disabilities in general physical education classes.  | Based on the results, There were positive attitudes of preservice teachers towards inclusion.   |
|                    | Correlations           | <b>Gender:</b><br>177 females<br>53 males<br><br><b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographic:</b><br>Religion: NO<br>Culture: NO<br>Educational Settings: YES<br>Experience: YES | <b>Intrvn:</b><br>The ATIPDPE-R survey was used in this study.<br><br>Comparison of attitudes of 64 participants (36 females and 28 males) were enrolled in the first year study of bachelor of physical education program; 32 participants (24 females and 8 males) were enrolled in the fourth year of study in the bachelor of physical education program; 111 participants (96 females and 15 males) were enrolled in the first year of study in the bachelor program of primary education; and 24 participants (22 females and 2 males) were enrolled in the 4th year of study in the bachelor program of primary education. | There were no significant differences between year groups or subject majors.<br><br>The attitudes toward inclusion accounted for 20%, and when subjective norm and gender were combined, the account rise to 26%. |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvrn = Intervention; Demo = Demographic; ATIPDPE-R = *The Attitudes Towards Individuals with Physical Disabilities in Physical Education Revised*.

Table 26

*Systematic Review of Attitudes Literature: Jeong (Another Country)*

| Auth/Lvel          | Design/Data collection | Population   | Outcome/ Intrvn  | Summary of the Results  |
|--------------------|------------------------|--|--|---|
| Jeong, (2008)<br>3 | Qual:                  | 21 physical education teachers from secondary schools in South Korea.  | <b>Outcome:</b><br>To evaluate Korean physical education teachers' beliefs and intentions toward teaching students with disabilities by using TPB model.   | Based on the results, TPB is an excellent model to predict Korean physical education teachers' beliefs toward their intentions to teach students with disabilities. |
|                    | Questionnaire          | <b>Gender:</b><br>Unknown  | <b>Intrvn:</b><br>Pilot questionnaire contained nine open-ended questions related to TPB module. The questionnaire revolved around the description of two students with disabilities. One was a student with ID and the other was a student with PD. |   |
|                    |                        | <b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographic:</b><br>Religion: NO<br>Culture: NO<br>Educational settings: YES<br>Experience: YES |  |   |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic; TPB = Theory of Planned Behavior; PD = Physical disability; ID = Intellectual disability.



Table 27

## Systematic Review of Attitudes Literature: Bennett, Deluca, &amp; Allen (Another Country)

| Auth/Lvel                       | Design/Data collection | Population   | Outcome/ Intrvn   | Summary of the Results   |
|---------------------------------|------------------------|--|---|--|
| Bennett, Deluca, & Allen (1995) | Qual:                  | 12 parents who had children with disabilities ranging in age from 15 months to 30 years.   | <b>Outcome:</b><br>To examine the religion as a personal coping resource used by parents of infants and toddlers with disabilities.   | Based on the results, prayer, church attendance, and specific religious beliefs were identified as sources of support which helped some parents feel a growing sense of hope and strength. |
|                                 | Interview              | <b>Gender:</b><br>Unknown  | <b>Intrvn:</b><br>Study involved indepth interviews of 12 parents who had children with disabilities ranging in age from 15 months to 30 years. The ways in which religion can be used as a coping resource across the life-cycle are exemplified through excerpts from these interviews. |  |
|                                 | 3                      | <b>Topics Addressed:</b><br>Teaching: YES<br>Student learning: YES<br>Need for academic preparation: YES<br><br><b>Demographics:</b><br>Religion: YES<br>Culture: NO<br>Educational settings: NO<br>Experience: NO |   |  |

Note. Auth = Author; Lvel = Level; Qual = Qualitative; Lntvsn = Intervention; Demo = Demographic; PEATID-III = *Physical Educators' Attitude Toward Teaching Individuals with Disabilities III*.

Based on the evaluation of the SORT in all individual studies related to inclusion, physical educators' attitude, and physical educators' preparation that was used in this chapter, it was clear that the grade of the group of these studies is B. This means there is consistent but limited quality teacher preparation evidence.

## Summary

Based on the review of the current literature, particularly in the United States, it appears that including students with disabilities with their peers without disabilities in the physical education classes may be beneficial for both of them academically, emotionally, socially, and physically (Block, 2007). However, Alsalhe and French (2009) reported that there are more than 44 databases yielded more than 1083 articles, from 1975 to 2009, from the Texas Woman University's search engine related to inclusion in physical education. These articles provided arguments between specialists who support and do not support including students with disabilities in the general physical education settings.

The following are important points in favor for including students with disabilities that were provided by different specialists who support inclusion in both general and physical education classes in the areas of teaching, student learning, and academic preparation defended by Folsom-Meek and Rizzo (2002).

### **Points of Teaching (By Specialists Who Support the Inclusion)**

1. Inclusion may help foster positive attitudes toward individuals with disabilities (Ammah, 2001; Combs & Elliott, 2010; Downs & Williams, 1994; Lipsky & Gartner, 1992).
2. Inclusion can help general teachers to learn new techniques and work with other specialist to help students with disabilities (Rizzo 1986; Rizzo, 1993; Rizzo & Vispoel, 1991; Rizzo & Wright, 1987; Sherrill & Tripp, 1991).

### **Points of Students' Learning (By Specialists Who Support the Inclusion)**

3. Inclusion may help students without disabilities understand differences and diversity (Friend & Bursuck, 1999).
4. Inclusion may help avoid the harmful effects of exclusion (e.g., students who leave a general education class to go to a special education class may be stigmatized by their classmates) [Friend & Bursuck, 1999; Hardman, Drew, & Egan 1999; Lipsky & Gartner, 1992].
5. In the inclusionary environment, students without disabilities have the opportunity to practice helping those who need help through working with their peers with disabilities in group activities (Stainback & Stainback, 1988; Stainback, Stainback, & Ayers, 1996).

### **Points of Academic Preparation (By Specialists Who Support the Inclusion)**

7. Inclusion may help facilitate growth in academic skills among students with and without disabilities (Friend & Bursuck, 1999).

The following are some of the concerns of specialists who do not support inclusion in general education, including general physical education related to the three areas defended by (Donaldson, 2005).

### **Points of Teaching (By Specialists Who Do Not Support the Inclusion)**

1. Many general teachers lack of training, knowledge, time, and material resources related to the learning and behavior of students with disabilities (Donaldson, 2005; Engelbrecht, 2003).

2. Many general physical educators lacked skills to effectively teach students with autism, and require training (Lieberman, James, & Ludwa, 2004).
3. Many general educators, including physical educators, do not feel they are prepared to undertake the responsibility of an inclusionary classroom (Friend & Bursuck, 2002).
4. Most of the parents remain concerned about including their children in a general education classroom because they believe that general teachers are not knowledgeable enough, academically and socially, to work with students with disabilities (Engelbrecht, 2003).

#### **Points of Students' Learning (By Specialists Who Do Not Support the Inclusion)**

5. Some general teachers reported that students with disabilities benefit socially from the inclusion, but not academically (Dupuis, 2007).

#### **Points of Academic Preparation (By Specialists Who Do Not Support the Inclusion)**

6. The acceptance of learners with disabilities seems to be a sensitive issue for teachers and students without disabilities within inclusionary classrooms (Kim, 2001).

In addition, these issues may negatively influence the physical educator's attitude which can have an adverse reaction towards the successful integration of students with disabilities. Therefore, if there is a need, techniques must be developed to improve the attitudes of physical educators toward teaching students with disabilities.

In addition, there are numerous researchers who have studied the relationship between attitudes of both preteachers and important factors that can affect the attitudes either positively or negatively toward individuals with disabilities such as religion, culture, educational setting, and experience with individuals with disabilities (Chesler, 1965; Dovey & Graffam, 1987; Downs & Williams, 1994; Fonosch & Schwab, 1981; Jansma & Schultz, 1984; Papadopoulou, 2004; Rizzo, 1986; Rizzo, 1991; Rizzo, 2002; Rizzo, 1993; Roush & Klockars, 1988; Selway & Ashman, 1998; Sharpe, 2000; Sherrill & Tripp, 1991).

## CHAPTER III

### METHOD

There were two purposes of this study. The first purpose was to compare between the attitudes of undergraduate physical education students in Saudi Arabia and undergraduate physical education students in the United States toward teaching students with disabilities in the areas of teaching, student learning, and academic preparation. The second purpose was to determine the influence of religion, culture, educational setting, and experience with individuals with disabilities on the undergraduate students' attitudes toward teaching students with disabilities in a physical education class. Within this chapter, information is presented related to Participants, Instruments, Definitions of Disabling Conditions, Reliability and Validity of the PEATID-III, Procedures, and Research Design and Statistical Analyses.

#### **Participants**

Two hundred and forty-three undergraduate physical education male students from one university in Saudi Arabia and five universities in the United States participated in this study. Of the 243 participants surveyed, 49 were eliminated because they did not match the background demographic that was required in this study (i.e., no females' participants, male participants who have taken an adapted physical education and/or a special education course). (see Table 1). Specifically, 98 undergraduate male participants were purposely selected from the College of Physical Education and Sport at King Saud

University in Saudi Arabia and 96 undergraduate physical education participants were purposely selected from the Kinesiology Departments at the University of North Texas ( $n = 24$ ), Stephen F. Austin State University ( $n = 20$ ), State University of New York at Cortland ( $n = 26$ ), University of Wisconsin-La Crosse ( $n = 17$ ), and the University of Utah ( $n = 9$ ), in the United States. The age of participants from Saudi Arabia were between 20 to 35 years old ( $m = 27$  years); while the age of the participants from the United States were 20 to 30 years old ( $m = 25$  years). Further, all participants had not completed an adapted physical education or special education course before this investigation.

### **Instruments**

The *Physical Educators' Attitude Toward Teaching the Disabilities-III* (PEATID-III) (Folsom-Meek & Rizzo, 2002) was used in this study. Historically, the *Physical Educators' Attitude Toward Teaching the Handicapped* (PEATH) survey originated from Ajzen and Fishbein's Theory of Reasoned Action/ Planning Behavior (1980). The PEATH survey was developed to "postulate beliefs that underlie attitudes toward teaching [pupils with disabilities]" (Rizzo, 1984, p. 268). This survey has been revised twice and is now referred to as *the Physical Educators' Attitude Toward Teaching Individuals with Disabilities* (PEATID-III). The revisions were designed to reflect the changes in the language of the Americans with Disabilities Act (ADA, 1990) and the Individuals with Disabilities Education Act (IDEA, 2004) (U. S. Department of Education, 2004).

The PEATID-III consists of 12 statements, such as: 'Students labeled with a disability should be taught with nondisabled students in my regular physical education classes whenever possible'; and 'Students labeled with a disability will develop a more favorable self-concept as a result of learning motor skills in my general physical education classes with nondisabled peers' (see Appendix A). The labeled disabling conditions are Physical Disability, Autism, Mild Intellectual Disability, and Emotional/Behavior Disability which are listed along with a 5-point Likert scale (i.e., 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree) under each of the 12 statements was used to measure the participant's responses in this instrument.

The description of these disabilities has been modified from the original study of PEATID-III by Folsom-Meek and Rizzo (2002) except Autism which modified from Autism Research Institute (2006) and Physical Disability from Foundation of Special Education (2009). Participants were instructed to insert the appropriate label when responding to each of the 12 statements. There were six positive and six negatively phrased statements were grouped in three areas: teaching students with disabilities in the general classes, effect student learning, and need for more academic preparation to teach students with the specific disabilities.

The participants also completed four demographic statements that were added to the survey based on an extensive review of the literature as possible factors that may impact the participants' beliefs (See Appendix B). A 5-point Likert scale (i.e., 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree) under each of the 5



statements was also used to measure the participant's responses related to the four factors (e.g., religion, culture, educational setting, and experience with individuals with disabilities).

To properly measure the 5-point Likert scale mean scores under each area (teaching, student learning, academic preparation), the total of item scores for each scale was divided by the number of items within that scale so that the scores can be interpreted with reference to the original 5-point Likert scale. To gain proper scale means, scores for negatively phrased items were reversed (Folsom-Meek and Rizzo, 2002).

### **Definitions of Disabling Conditions**

#### **Physical Disability**

A student's physical disability can be congenital or a result of injury, such as muscular dystrophy, multiple sclerosis, cerebral palsy, amputation, heart disease, or pulmonary disease (Foundation of Special Education, 2009). According to the Individuals with Disabilities Education Act (IDEA, 2004), a student with an orthopedic impairment, brain injury, or other health impairment requires special education and related services due to that impairment is considered to have a physical disability. The condition must hinder or substantially limit the student's ability to take part in routine school activities. The level of the physical disability determined may or may not affect a child's academic performance (Foundation of Special Education, 2009). In the physical education class, children and youth with physical disabilities have lower levels of physical activity and

fitness including less muscular strength, lower exercise capacity, lower aerobic fitness, and higher body mass indexes (Menear & Shapiro, 2004).

### **Autism**

A student labeled autism has a severe developmental disorder that starts at birth or within the first two-and-a-half years of the child's life (Autism Research Institute, 2006). Boys are 4 times more likely to have autism than girls. These children have a neurological impairment that affects their ability to understand many things correctly, such as sounds, smells, talking, and acting with others. In the physical education class, children and youth with autism have poorer motor skills on average than children without disabilities. In fact, these children have difficulty with motor tasks, such as tying their shoes, riding a bike, or playing baseball (Hickman, 2007).

### **Mild Intellectual Disability**

A student labeled with mild intellectual disability may be considered to have an IQ score in the range of 50 to 80 on standardized tests. The student will probably develop social and communication skills and possess a minimal developmental lag in sensorimotor areas that will not be distinguished from typical development until a later age. Presumably, the student will learn skills approximately to a 6th grade level by his or her late teens and can be guided to social conformity fairly easily. Such a student can usually achieve adequate social and vocational skills for self-support but may need guidance and assistance when under social or economic stress. The student may lag 2 to 4 years behind nondisabled peers in most measures of motor

performance and have difficulty in learning motor tasks due to a short attention span and low comprehension skills. The student can learn to participate in individual activities such as bowling, golf, swimming, dance, skating, and fitness-related activities (Rizzo & Kirkendall, 1995, pp. 208-209).

### **Emotional/Behavioral Disorder**

A student with this condition displays behaviors that are varied and tend toward to the extreme. The characteristics of these students include delinquency, hyperactivity, hypoactivity, withdrawal, pervasive anxiety, social maladjustment, aggression, tantrums, truancy, running away, extreme mood shifts, and hypersensitivity. Participation in physical education, sport, dance, and swimming is usually facilitated by simple behavior management programs (Rizzo & Kirkendall, 1995, p. 209).

### **Validity and Reliability of the PEATID-III**

Validity and reliability of the PEATID-III were assessed for content significance by six nationally prominent researchers in the area of educational programs that include students with disabilities (Koranda, Romance, & Vogler, 2000). Factor analysis and alpha coefficients were used to support construct validity (Cronbach, 1951). In addition, further proof of validity, as well as, reliability related to the items in PEATID-III is described in a study by Rizzo and Vispoel (1991).

More recently, evidence of validity and reliability related to the PEATID-III was reported by Folsom-Meek and Rizzo (2002). The principle components analysis was used to establish the construct validity of the PEATID-III. The estimation of reliability was

ascertained using the coefficient alpha of .88 for the total scale, which is considered 'good' (Cronbach, 1951).

In this study, the PEATID-III survey format was modified by: (a) Adding four statements related to possible influential factors e.g., religion, culture, educational setting, and experience with individuals with disabilities; (b) Changing previous terminology to contemporary terminology in one definition used in the original survey by Folsom-Meek and Rizzo (2002) [e.g., the term *mental retardation* was changed to *intellectual disability*]; and (c) Using the definition of *autism* from the Autism Research Institute (2006) and using the term *physical disability* from Foundation of Special Education (2009). The format of the survey was also slightly modified, but there were no change in the original statements. Therefore, to ensure the modified instrument and demographic factors were still reliable before presenting them to the participants, the questionnaire was completed twice at the Texas Woman's University in the fall of 2010 by 50 undergraduate students enrolled in an introductory motor learning class. Specifically, Cronbach's Alpha and test and retest reliability were calculated for each subscale based on the administration (approximately 1 week apart) of the *PEATID-III* to 50 students from motor learning class at Texas Woman's University. The administrator in this class agreed to provide the survey to the participants two separate times. The estimation of reliability was ascertained using the coefficient alpha and was reported at .83 for the total scale (see Appendices J), which is considered 'good' (Cronbach, 1951). For test and retest reliability, intraclass correlation procedures were used to determine whether or not

there were significant differences between the test and retest trials. A repeated measures analysis of variance program was used Statistical Package for the Social Sciences (SPSS, 2009). Based on the results, there was no significant difference among the scores from each statement for test and retest trials which means the survey was statically reliable ( $p > .05$ ).

For Saudi Arabian participants, the 12 questionnaire statements from the *PEATID-III* and statements related to possible influential factors were translated from English to Arabic. To accomplish this translation, the researcher sent the 12 statements (see Appendix C) and statements related to possible influential factors (see Appendix D) to three professors in the discipline of physical education, who spoke and wrote in both Arabic and English fluently, to determine if the content of the statements after the translation were accurate. The three professors unanimously agreed that the content of the 48 statements and the demographic statements related possible influential factors had the same meaning for Saudi Arabia participants as for the participants from the United States.

Next, the investigator explained the meaning of each statement to the volunteer professors in each university who administered the questionnaire by email to make sure they were able to explain each statement correctly to the participants before they completed it.

### **Procedures**

The survey was sent to both participant groups at all the universities after the Institutional Review Board (IRB) approval was obtained from the Texas Woman's

University (see Appendix G). All participants in this study received and signed a consent letter before they participated, which also outlined the rights of each participant (see Appendix I).

During the spring 2011 semester, the course professors in all the universities provided their participants the PEATID-III survey and specific demographic information. Specifically, in the first adapted physical education class, the course professors described the study to all the students, and allowed them to ask questions and/or contact the researcher directly by email. At the end of the second adapted physical education class in each university, the course professors asked the participants to sit at individual desks and then the administrators provided the participants the specific steps related to how to take the survey, and explained to them that they have an option to either complete or do not complete the questionnaire.

The course professors also told the students that participation in this study was voluntary and they may discontinue the participation at any time and that not participating would not impact their grade. Furthermore, the course professors provided the survey to all the students. The professors purposely left the class to allow the participants who did not want to participate: (a) to put the incomplete survey inside the large mailing envelope that was placed on the desk in each class and (b) to feel comfortable about leaving the classroom at any time. The participants in all universities took approximately 10 to 15 min to complete the survey. Because of the geographic distance, the researcher sent the survey to the course professors in Saudi Arabia by

certified air mail, and the United States by certified mail. The questionnaires were returned in the same way directly to the researcher after the participants completed them.

### **Research Design and Statistical Analyses**

A non experimental distractive design that involved survey methodology (Portney & Watkins, 2009) was used to compare the attitudes of the two groups toward teaching students with disabilities. Specifically, the Repeated Measure ANOVA test was used to determine the differences in the attitudes ‘within’ each group of participants in the areas of teaching, student learning, and academic preparation toward teaching students with specific disabilities (physical disability, autism, mild intellectual disability, and emotional/behavioral disability); and to determine the affect of the demographic factors ‘within’ each group related to the attitude of physical educators toward teaching students with disabilities. Independent Sample *t*-test was used to analysis the differences in the attitudes ‘between’ the two groups. Specifically, Independent Sample *t*-test was used to determine the differences in the three areas toward teaching students with specific disabilities, and to determine the affect of the demographic factors between the two groups on the attitude of physical educators toward teaching students with disabilities.

## CHAPTER IV

### RESULTS

There were two purposes of this study. The first purpose was to compare between the attitudes of undergraduate physical education students in Saudi Arabia and undergraduate physical education students in the United States toward teaching students with disabilities in the areas of teaching, student learning, and academic preparation. The second purpose was to determine the influence of religion, culture, educational setting, and experience with individuals with disabilities on the undergraduate students' attitudes toward teaching students with disabilities in a physical education class. In this chapter, the results are presented under the following headings: Demographic Information, Saudi Arabian Undergraduate Students' Attitudes Toward the Inclusion in the Physical Education, United States Undergraduate Students' Attitudes Toward Inclusion in the Physical Education, and Comparison of Groups Related to Attitudes Toward Inclusion in the Physical Education.

#### **Demographic Information**

Two hundred and forty-three undergraduate physical education male students from one university in Saudi Arabia and five universities in the United States participated in this study. Of those 243 participants' surveyed, 49 were eliminated because they did not match the background that was required in this study (i.e., no females' participants, male participants who have taken an adapted physical education and/or a special education



course). Specifically, there were 98 undergraduate male participants who were purposely selected from the College of Physical Education and Sport at King Saud University in Saudi Arabia and 96 undergraduate physical education participants who were purposely selected from the Kinesiology Departments at the University of North Texas ( $n = 24$ ), Stephen F. Austin State University ( $n = 20$ ), State University of New York at Cortland ( $n = 26$ ), University of Wisconsin-La Crosse ( $n = 17$ ), and the University of Utah ( $n = 9$ ), in the United States.

Even though all the participants were male in both groups, they were from different religious, cultural, educational environments, and experience with individuals with disabilities backgrounds. The age of participants from Saudi Arabia were between 20 to 35 years old ( $m = 27$  years); while the age of the participants from the United States were 20 to 30 years old ( $m = 25$  years). Further, all participants had not complete an adapted physical education and/or special education course prior to this investigation. Table 28 provides the specific demographic information.

Table 28

## Demographic Information of both Saudi Arabian and United States' Participants

| <b>Schools</b>  | King Saud University | University of North Texas | Stephen F. Austin University | University of New York at Cortland | University of Wisconsin-La Crosse | University of Utah   |
|---|----------------------|---------------------------|------------------------------|------------------------------------|-----------------------------------|----------------------|
| <b>N</b>  | 98                   | 24                        | 20                           | 26                                 | 17                                | 9                    |
| <b>Age Range</b>  | <u>27</u><br>(20-35) | <u>25</u><br>(20-30)      | <u>25</u><br>(20-30)         | <u>25</u><br>(20-30)               | <u>25</u><br>(20-30)              | <u>25</u><br>(20-30) |
| <b>Gender</b>   | m                    | m                         | m                            | m                                  | m                                 | m                    |
| <b>Have taken <sup>1</sup><br/>APA or SPE<br/>class</b> | no                   | no                        | no                           | no                                 | no                                | no                   |
| <b>Religions <sup>2</sup></b>                           |                      |                           |                              |                                    |                                   |                      |
| Christian   | 0                    | 20                        | 17                           | 19                                 | 17                                | 9                    |
| Islamic   | 98                   | 0                         | 0                            | 0                                  | 0                                 | 0                    |
| Jewish  | 0                    | 0                         | 1                            | 0                                  | 0                                 | 0                    |
| Others  | 0                    | 4                         | 2                            | 7                                  | 0                                 | 0                    |
| <b>Culture <sup>3</sup></b>                             | Arabic               | varied                    | varied                       | varied                             | varied                            | varied               |
| <b>Educational <sup>4</sup><br/>Setting</b>             | Segregated system    | Inclusionary System       | Inclusionary System          | Inclusionary System                | Inclusionary System               | Inclusionary System  |
| <b>Experience with individuals with disabilities</b>    | no                   | yes                       | yes                          | yes                                | yes                               | yes                  |

<sup>1</sup> APE = Adapted physical education; SPE = Special education.<sup>2</sup> The order of the religions in this table is based on the Alphabet (A, B, C, etc.).<sup>3</sup> The different cultures identified by the students in the United States were: African American, Asian Caucasian, Hispanic.<sup>4</sup> Participants were asked if they attended segregated or inclusionary schools when they were in grade schools.

## **Saudi Arabian Undergraduate Students' Attitude Toward Inclusion in Physical Education**

This section is related to the first purpose of this investigation which was to determine the attitudes of undergraduate physical education students in Saudi Arabia. All participants completed the 12 statements of PEATID-III survey in three areas of teaching, student learning, and academic preparation. Based on the data analysis of Saudi Arabian participants, there was a significant difference between the three areas in just student learning ( $p = .000$ ,  $F = 6571.507$ ). This was related to statements 7, 8, 9, and 10 (see Table 30). There was no significant difference reported in the areas of teaching and academic preparation.

To identify where the significant differences were in the responses of the Saudi Arabian participants in the statements of the learning area, based on the analysis of the results, there were significant differences in the responses to all four statements. Specifically, Saudi Arabian participants had a higher mean score towards students with autism than the other disabilities in statements seven "One advantage of teaching students labeled \_\_\_\_\_ in my regular physical education classes is that all students will learn to work together toward achieving goals" ( $m = 3.90$ ,  $SD = 1.048$ ); eight "Teaching students labeled \_\_\_\_\_ in my regular physical education classes will motivate nondisabled students to perform motor skills" ( $m = 3.70$ ,  $SD = .950$ ), and tenth "Students labeled \_\_\_\_\_ will develop a more favorable self-concept as a result of learning motor skills in my regular physical education classes" ( $m = 3.77$ ,  $SD = .968$ ). Saudi

Arabian participants also responded with a high mean score toward students with emotional/behavior disorders in statement nine in the area of student learning, which stated that “Students labeled \_\_\_\_\_ will learn more rapidly if they are taught in my regular physical education classes” (  $m = 3.56$ ,  $SD = 1.119$ ).

As depicted in Table 29, is the Saudi Arabian participants’ attitude toward teaching students scores related to the four disabilities in physical education classes in all of the three areas (i.e., teaching, student learning, academic preparation). These scores were then input into Statistical Package for Social Sciences (SPSS, 2009) to determine the descriptive statistics. The mean correlates with the Likert Scale is from 5 to 1. Higher scores indicated a more positive attitude and lower scores indicated a more negative attitude.

Table 29

Description of the Four Disabilities Under Each of the 12 Survey Statements of the PHATID-III with Means and Standard Deviations for the Saudi Arabian Participants

| Components/Item   | Sample                          |      |
|---|---------------------------------|------|
|   | Saudi Arabian Participants<br>M | SD   |
| <b><i>Teaching</i></b>  |                                 |      |
| 1. Student's labeled _____ will not be accepted by their nondisabled peers in my regular physical education classes.                              |                                 |      |
| PD  | 2.27                            | 1.08 |
| Autism  | 3.08                            | 1.20 |
| Mild ID   | 2.35                            | 1.16 |
| EBD   | 2.79                            | 1.21 |
| 2. Students labeled _____ in my regular physical education classes with nondisabled students will disrupt the harmony of the class.               |                                 |      |
| PD  | 2.26                            | 1.11 |
| Autism  | 3.03                            | 1.25 |
| Mild ID   | 2.22                            | 1.12 |
| EBD   | 2.79                            | 1.08 |
| 3. Having to teach students labeled _____ in my regular physical education classes with nondisabled students places an unfair burden on teachers. |                                 |      |
| PD  | 2.30                            | 1.30 |
| Autism  | 2.74                            | 1.19 |
| Mild ID   | 2.47                            | 1.27 |
| EBD   | 2.78                            | 1.32 |
| 4. Teaching students labeled _____ in my regular physical education classes means more work for me.   |                                 |      |
| PD  | 1.48                            | .74  |
| Autism  | 2.23                            | 1.14 |
| Mild ID   | 1.74                            | .91  |
| EBD   | 2.34                            | 1.24 |

(continued)

Table 29 continued

| Components/Item   | Sample                          |      |
|---|---------------------------------|------|
|   | Saudi Arabian Participants<br>M | SD   |
| 5. Students labeled _____ should not be taught in my regular physical education classes because they will require too much of my time.                                |                                 |      |
| PD  | 1.99                            | 1.10 |
| Autism  | 2.75                            | 1.15 |
| Mild ID   | 2.06                            | .99  |
| EBD   | 2.76                            | 1.25 |
| 6. Students labeled _____ should be taught in my regular physical education classes whenever possible.  |                                 |      |
| PD  | 3.45                            | 1.20 |
| Autism  | 3.55                            | 1.11 |
| Mild ID   | 3.15                            | 1.18 |
| EBD   | 3.41                            | 1.16 |
| <b><i>Student Learning</i></b>  |                                 |      |
| 7. One advantage of teaching students labeled _____ in my regular physical education classes is that all students will learn to work together toward achieving goals. |                                 |      |
| PD  | 3.88                            | 1.09 |
| Autism  | 3.91                            | 1.05 |
| Mild ID   | 3.49                            | 1.19 |
| EBD   | 3.86                            | 1.08 |
| 8. Teaching students labeled _____ in my regular physical education classes will motivate nondisabled students to perform motor skills.                               |                                 |      |
| PD  | 3.65                            | 1.26 |
| Autism  | 3.71                            | .95  |
| Mild ID   | 3.36                            | 1.26 |
| EBD   | 3.54                            | 1.12 |

(continued)

Table 29 continued

| Components/Item   | Sample<br>Saudi Arabian Participants |      |
|---|--------------------------------------|------|
|   | M                                    | SD   |
| 9. Students labeled _____ will learn more rapidly if they are taught in my regular physical education classes.  |                                      |      |
| PD  | 3.55                                 | 1.30 |
| Autism  | 3.54                                 | 1.07 |
| Mild ID   | 3.19                                 | 1.18 |
| EBD   | 3.59                                 | 1.12 |
| 10. Students labeled _____ will develop a more favorable self-concept as a result of learning motor skills in my regular physical education classes.  |                                      |      |
| PD  | 3.74                                 | 1.22 |
| Autism  | 3.77                                 | .97  |
| Mild ID   | 3.26                                 | 1.14 |
| EBD   | 3.63                                 | 1.04 |
| <i>Academic Preparation</i>   |                                      |      |
| 11. As a physical education teacher, I do not have sufficient training necessary to teach students labeled _____ in my regular physical education class.  |                                      |      |
| PD  | 3.83                                 | 1.19 |
| Autism  | 3.38                                 | 1.15 |
| Mild ID   | 3.70                                 | 1.30 |
| EBD   | 3.15                                 | 1.29 |
| 12. As a physical education teacher, I will need more coursework and training before I will be able to teach a physical education class with student's labeled _____ with nondisabled students. |                                      |      |
| PD  | 1.73                                 | 1.10 |
| Autism  | 2.11                                 | 1.22 |
| Mild ID   | 1.89                                 | 1.13 |
| EBD   | 2.05                                 | 1.19 |

PD = Physical Disability; Autism = Autism; Mild ID = Mild Intellectual Disability; EBD = Emotional/Behavior Disorder

## **Influence of the Four Factors on the Participants in Saudi Arabia**

This section is related to the second purpose of this investigation related to the influence of the factors of religion, culture, educational setting, and experience with individuals with disabilities on the attitudes of undergraduate physical education students toward teaching students with disabilities.

Based on the findings of this investigation related to the influence of the four factors in Saudi Arabia, there were significant differences between the four factors ( $F = 1296.205, p = .000$ ). Saudi Arabian participants had a higher mean score ( $m = 3.73$ ) in the religion than the other three factors. Table 30 provides a description of the means and standard deviations for Saudi Arabian participants in the influence of the four factors.

Table 30

Comparing the Influence of the Four Factors with Means and Standard Deviations for the Participants in Saudi Arabia

| Demographics  |      |         |
|---|------|---------|
|   | M    | SD      |
| <b>Religion</b>                                       | 3.73 | 1.43.00 |
| <b>Culture</b>  | 3.52 | 1.17    |
| <b>Educational Setting</b>                            | 3.16 | 1.30    |
| <b>Experiences with individuals with disabilities</b> | 3.57 | 1.37    |



## **United States Undergraduate Students' Attitudes Toward Inclusion in Physical Education**

This section is related to the first purpose of this investigation which was to determine the attitudes of undergraduate physical education students in the United States. All participants completed the 12 statements of PEATID-III survey, which computed in three areas of teaching, student learning, and academic preparation. Based on the data analysis of the United States' participants, there was a significant difference between the three areas in just the student learning ( $p = .000$ ,  $F = 6675.38$ ). This was related to statements 7, 8, 9, and 10 (see Table 30). There were no significant differences reported in the areas of teaching and academic preparation.

To identify where the significant differences were in the responses of the Saudi Arabian participants in the statements of the learning area, based on the results, there were significant differences in just statement eight, which stated that "Teaching students labeled \_\_\_\_\_ in my regular physical education classes will motivate nondisabled students to perform motor skills." Specifically, participants from the United States had a higher mean score towards students with a physical disability than the other disabilities related to this statement ( $m = 3.62$ ,  $SD = .969$ ). As depicted in Table 31, is the United States participants' attitude toward teaching students scores related to the four disabilities in physical education classes in all of the three areas (i.e., teaching, student learning, academic preparation). These scores were then input into Statistical Package for Social Sciences (SPSS, 2009) to determine the descriptive statistics. The mean correlates with

the Likert Scale is from 5 to 1. Higher scores indicated a more positive attitude and lower scores indicated a more negative attitude.

Table 31

Description of the Four Disabilities Under Each of the 12 Survey Statements of the PHATID-III with Means and Standard Deviations for the United States' Participants

| Components/Item   | <u>Sample</u><br>United States' Participants |      |
|---|--|------|
|   | M  | SD   |
| <b><i>Teaching</i></b>  |  |      |
| 1. Student's labeled _____ will not be accepted by their nondisabled peers in my regular physical education classes.                              |  |      |
| PD  | 3.55   | 1.18 |
| Autism  | 3.53   | 1.20 |
| Mild ID   | 3.74   | 1.06 |
| EBD   | 3.57   | 1.19 |
| 2. Students labeled _____ in my regular physical education classes with nondisabled students will disrupt the harmony of the class.               |  |      |
| PD  | 3.93   | .87  |
| Autism  | 3.58   | .98  |
| Mild ID   | 3.79   | .87  |
| EBD   | 3.43   | 1.17 |
| 3. Having to teach students labeled _____ in my regular physical education classes with nondisabled students places an unfair burden on teachers. |  |      |
| PD  | 3.91   | 1.03 |
| Autism  | 3.73   | 1.09 |
| Mild ID   | 3.83   | 1.01 |
| EBD   | 3.71   | 1.11 |
| 4. Teaching students labeled _____ in my regular physical education classes means more work for me.   |  |      |
| PD  | 2.73   | 1.07 |
| Autism  | 2.60   | 1.02 |
| Mild ID   | 2.75   | 1.12 |
| EBD   | 2.69   | 1.11 |

(continued)

Table 31 continued

| Components/Item   | Sample<br>United States' Participants |     |
|---|---------------------------------------|-----|
|   | M                                     | SD  |
| 5. Students labeled _____ should not be taught in my regular physical education classes because they will require too much of my time.                                |                                       |     |
| PD  | 4.15                                  | .82 |
| Autism  | 4.11                                  | .79 |
| Mild ID   | 4.08                                  | .88 |
| EBD   | 4.08                                  | .89 |
| 6. Students labeled _____ should be taught in my regular physical education classes whenever possible.  |                                       |     |
| PD  | 3.95                                  | .92 |
| Autism  | 3.91                                  | .95 |
| Mild ID   | 3.94                                  | .95 |
| EBD   | 3.92                                  | .98 |
| <b><i>Student Learning</i></b>  |                                       |     |
| 7. One advantage of teaching students labeled _____ in my regular physical education classes is that all students will learn to work together toward achieving goals. |                                       |     |
| PD  | 4.34                                  | .68 |
| Autism  | 4.25                                  | .77 |
| Mild ID   | 4.30                                  | .76 |
| EBD   | 4.19                                  | .90 |
| 8. Teaching students labeled _____ in my regular physical education classes will motivate nondisabled students to perform motor skills.                               |                                       |     |
| PD  | 3.62                                  | .93 |
| Autism  | 3.47                                  | .95 |
| Mild ID   | 3.40                                  | .97 |
| EBD   | 3.39                                  | .97 |

(continued)

Table 31 continued

| Components/Item  | Sample<br>United States' Participants |      |
|--|---------------------------------------|------|
|  | M                                     | SD   |
| 9. Students labeled _____ will learn more rapidly if they are taught in my regular physical education classes.                                       |                                       |      |
| PD   | 3.18                                  | 1.03 |
| Autism   | 3.20                                  | 1.00 |
| Mild ID  | 3.17                                  | 1.02 |
| EBD  | 3.26                                  | 1.04 |
| 10. Students labeled _____ will develop a more favorable self-concept as a result of learning motor skills in my regular physical education classes. |                                       |      |
| PD   | 3.78                                  | .95  |
| Autism   | 3.76                                  | .99  |
| Mild ID  | 3.69                                  | 1.02 |
| EBD  | 3.65                                  | .98  |

*Academic Preparation*

|   |      |      |
|---|------|------|
| 11. As a physical education teacher, I do not have sufficient training necessary to teach students labeled _____ in my regular physical education class.  |      |      |
| PD  | 2.76 | .98  |
| Autism  | 2.82 | 1.01 |
| Mild ID   | 2.80 | .97  |
| EBD   | 2.73 | .95  |
| 12. As a physical education teacher, I will need more coursework and training before I will be able to teach a physical education class with student's labeled _____ with nondisabled students. |      |      |
| PD  | 2.35 | .98  |
| Autism  | 2.28 | 1.02 |
| Mild ID   | 2.39 | 1.07 |
| EBD   | 2.38 | 1.03 |

PD = Physical Disability; Autism = Autism; Mild ID = Mild Intellectual Disability;  
EBD = Emotional/Behavior Disorder

Table 31 continued

| Components/Item  | Sample<br>United States' Participants |      |
|--|---------------------------------------|------|
|  | M                                     | SD   |
| 9. Students labeled _____ will learn more rapidly if they are taught in my regular physical education classes.                                       |                                       |      |
| PD   | 3.18                                  | 1.03 |
| Autism   | 3.20                                  | 1.00 |
| Mild ID  | 3.17                                  | 1.02 |
| EBD  | 3.26                                  | 1.04 |
| 10. Students labeled _____ will develop a more favorable self-concept as a result of learning motor skills in my regular physical education classes. |                                       |      |
| PD   | 3.78                                  | .95  |
| Autism   | 3.76                                  | .99  |
| Mild ID  | 3.69                                  | 1.02 |
| EBD  | 3.65                                  | .98  |

*Academic Preparation*

|   |      |      |
|---|------|------|
| 11. As a physical education teacher, I do not have sufficient training necessary to teach students labeled _____ in my regular physical education class.  |      |      |
| PD  | 2.76 | .98  |
| Autism  | 2.82 | 1.01 |
| Mild ID   | 2.80 | .97  |
| EBD   | 2.73 | .95  |
| 12. As a physical education teacher, I will need more coursework and training before I will be able to teach a physical education class with student's labeled _____ with nondisabled students. |      |      |
| PD  | 2.35 | .98  |
| Autism  | 2.28 | 1.02 |
| Mild ID   | 2.39 | 1.07 |
| EBD   | 2.38 | 1.03 |

PD = Physical Disability; Autism = Autism; Mild ID = Mild Intellectual Disability;  
EBD = Emotional/Behavior Disorder

## **Influence of the Four Factors on the Participants in United States**

This section is related to the second purpose of this study which is related to the influence factors of religion, culture, educational setting, and experience with individuals with disabilities on the attitudes of undergraduate physical education students toward teaching students with disabilities.

Based on the findings of this investigation related to the influence of the four factors in the United States, there were significant differences between the four factors ( $F = 1136.53, p = .000$ ). The participants from the United States also showed a higher mean score in the religion ( $m = 3.58$ ) than the other three factors. Table 32 provides a description of the means and standard deviations for United States' participants related to the influence of the four factors.

Table 32

Comparing the Influence of the four Factors with Means and Standard Deviations for the Participants in the United States

| Demographics  | M    | SD   |
|---|------|------|
| <b>Religion</b>                                       | 3.57 | 1.01 |
| <b>Culture</b>  | 3.34 | 1.13 |
| <b>Educational Setting</b>                            | 3.14 | 1.30 |
| <b>Experiences with individuals with disabilities</b> | 3.19 | 1.15 |

## **Comparison of the Participants From Saudi Arabia and United States Related to Attitudes Toward Inclusion in Physical Education**

This section is related to the first part of the purpose related to the comparison of the attitudes between undergraduate physical education students in Saudi Arabia and the United States. All participants completed the 12 statements of PEATID-III survey in three areas of teaching, student learning, and academic preparation. Based on the data analysis, there was a significant difference between the two groups in the area of teaching only ( $t = -13.446$ ,  $p = .000$ ). This was related to statements 1, 2, 3, 4, 5, and 6 (see Table 30). However, there was no significant differences reported in the areas of student learning and academic preparation between the two groups.

Specifically, the participants from the United States had a higher mean score ( $m = 3.63$ ) in their readiness to teach students with the specific disabilities than the participants from Saudi Arabia ( $m = 2.58$ ). There were no significant differences reported in the areas of student learning and academic preparation between the two groups.

The results in the three areas of teaching, student learning, and academic preparation between both groups are provided in Table 33, while Table 34 provides the description of the means and standard deviations in Saudi Arabia and United States' Participants in the teaching statements.

Table 33

Description of the Comparison in the Three Areas of Teaching, Learning, and Academic Preparation Between the Participants in Saudi Arabia and United States

| Components / Item          | M    | SD   |
|----------------------------|------|------|
| Teaching                   |      |      |
| Saudi Arabian Participants | 2.59 | .479 |
| United States Participants | 3.63 | .598 |
| Learning                   |      |      |
| Saudi Arabian Participants | 3.60 | .649 |
| United States Participants | 3.64 | .653 |
| Academic Preparation       |      |      |
| Saudi Arabian Participants | 3.01 | .487 |
| United States Participants | 2.94 | .475 |



Table 34

Description of the Means and Standard Deviations of the Participants from Saudi Arabia and United States in the Teaching Area

| Components/Item   | <u>Sample</u>                |      |                               |      |
|---|------------------------------|------|-------------------------------|------|
|   | Saudi Arabia<br>Participants |      | United States<br>Participants |      |
|   | M                            | SD   | M                             | SD   |
| 1. Student's labeled _____ will not be accepted by their nondisabled peers in my regular physical education classes.                              |                              |      |                               |      |
| PD  | 2.27                         | 1.08 | 3.55                          | 1.18 |
| Autism  | 3.08                         | 1.20 | 3.53                          | 1.20 |
| Mild ID   | 2.35                         | 1.16 | 3.74                          | 1.06 |
| EBD   | 2.79                         | 1.21 | 3.57                          | 1.19 |
| 2. Students labeled _____ in my regular physical education classes with nondisabled students will disrupt the harmony of the class.               |                              |      |                               |      |
| PD  | 2.26                         | 1.11 | 3.93                          | .87  |
| Autism  | 3.03                         | 1.25 | 3.58                          | .98  |
| Mild ID   | 2.22                         | 1.12 | 3.79                          | .87  |
| EBD   | 2.79                         | 1.08 | 3.43                          | 1.17 |
| 3. Having to teach students labeled _____ in my regular physical education classes with nondisabled students places an unfair burden on teachers. |                              |      |                               |      |
| PD  | 2.30                         | 1.30 | 3.91                          | 1.03 |
| Autism  | 2.74                         | 1.19 | 3.73                          | 1.09 |
| Mild ID   | 2.47                         | 1.27 | 3.83                          | 1.01 |
| EBD   | 2.78                         | 1.32 | 3.71                          | 1.11 |
| 4. Teaching students labeled _____ in my regular physical education classes means more work for me.   |                              |      |                               |      |
| PD  | 1.48                         | .74  | 2.73                          | 1.07 |
| Autism  | 2.23                         | 1.14 | 2.60                          | 1.02 |
| Mild ID   | 1.74                         | .91  | 2.75                          | 1.12 |
| EBD   | 2.34                         | 1.24 | 2.69                          | 1.11 |

(continued)

Table 34 continued

| Components/Item  | Sample                       |      | United States |     |
|--|------------------------------|------|---------------|-----|
|  | Saudi Arabia<br>Participants |      | Participants  |     |
|  | M                            | SD   | M             | SD  |
| 5. Students labeled _____ should not be taught in my regular physical education classes because they will require too much of my time. |                              |      |               |     |
| PD   | 1.99                         | 1.10 | 4.15          | .82 |
| Autism   | 2.75                         | 1.15 | 4.11          | .79 |
| Mild ID  | 2.06                         | .99  | 4.08          | .88 |
| EBD  | 2.76                         | 1.25 | 4.08          | .89 |
| 6. Students labeled _____ should be taught in my regular physical education classes whenever possible.                                 |                              |      |               |     |
| PD   | 3.45                         | 1.20 | 3.95          | .92 |
| Autism   | 3.55                         | 1.11 | 3.91          | .95 |
| Mild ID  | 3.15                         | 1.18 | 3.94          | .95 |
| EBD  | 3.41                         | 1.16 | 3.92          | .98 |

PD = Physical Disability; Autism = Autism; Mild ID = Mild Intellectual Disability;  
EBD = Emotional/Behavior Disorder

## **Comparison of the Participants from Saudi Arabia and United States**

### **Related to the Influence of the Four Factors**

This section is related to the second purpose of this investigation which is related to the influence of factors of religion, culture, educational setting, and experience with individuals with disabilities on the attitudes of undergraduate physical education students toward teaching students with disabilities. Based on the findings, there were no significant differences in the affect of religion, culture, and educational settings on the attitudes of undergraduate physical education students toward teaching students with disabilities between the participants from Saudi Arabia and the United States.

However, there was significant difference in the affect of experience with individuals with disabilities on the attitudes of future physical educators toward teaching students with disabilities ( $t = 2.111, p = 0.03$ ). Specifically, Saudi Arabian participants showed a higher mean score in the need for experience with individuals with disabilities ( $m = 3.57$ ) than participants in the United States ( $m = 3.18$ ). Comparison of means and standard deviations related to the four factors on the attitudes between the participants from Saudi Arabia and United States are provided in Table 35.

Table 35

Comparison of the Influence of the four Factors on the Attitudes Between the Participants from Saudi Arabia and United States

| Demographics   | <u>Sample</u>        |                                   |
|--|----------------------|-----------------------------------|
|  | King Saud University | Universities in the United States |
| <b>Religion</b>                                      |                      |                                   |
| M  | 3.73                 | 3.57                              |
| SD   | 1.35                 | 1.01                              |
| <b>Culture</b>                                       |                      |                                   |
| M  | 3.52                 | 3.34                              |
| SD   | 1.18                 | 1.13                              |
| <b>Educational setting</b>                           |                      |                                   |
| M  | 3.57                 | 3.14                              |
| SD   | 1.30                 | 1.13                              |
| <b>Experience with individuals with disabilities</b> |                      |                                   |
| M  | 3.57                 | 3.19                              |
| SD   | 1.37                 | 1.15                              |

## CHAPTER V

# COMPARISON OF THE ATTITUDES BETWEEN UNDERGRADUATE PHYSICAL EDUCATION STUDENTS IN SAUDI ARABIA AND THE UNITED STATES TOWARD TEACHING STUDENTS WITH DISABILITIES

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## Abstract

The purpose of this study was to: (a) compare between the attitudes of undergraduate physical education students in Saudi Arabia ( $n = 98$ ) and the United States ( $n = 96$ ) toward teaching students with a physical disability, autism, an intellectual disability, and emotional/behavior disorders; and (b) determine the influence factors of religion, culture, educational setting, and experience on the attitudes of undergraduate physical education students toward teaching students with disabilities. Data were collected through the administration of *Physical Educators' Attitude toward Teaching the Disabilities-III* (PEATID-III) (Folsom-Meek & Rizzo, 2002). The statements in this questionnaire were computed in three areas which were: teaching, student learning, and academic preparation. Repeated Measure ANOVA and Independent Sample  $t$ -tests were used in this study. Based on the results of the analyses, participants from the United States had more positive attitudes toward teaching students with specific disabilities than Saudi Arabian participants; while Saudi Arabian participants considered experience as a more important factor related to the influence of physical educators' attitudes toward students with disabilities compared to the participants from the United States. It was concluded that the results of this study may help the faculty in physical education teacher preparation to develop appropriate preservice curriculum related to attitudinal development.

**Key words:** religion, culture, educational settings, experience, PEATID-III, preservice education.

## **Introduction**

Related to the implementation of the inclusion concept in Saudi Arabia and the United States, Saudi Arabia is in the initial steps of considering the implementation of inclusion in its public schools, including physical education. In contrast the United States has implemented this concept for at least 30 years in the classroom and physical education in its public schools under the label of mainstreaming (Halvorsen & Neary, 2001), Regular Education Initiative (D'Alonzo, 1990), and now inclusion (Block & Vogler, 1994).

Physical education classes are considered one of the first environments for both students with and without disabilities begin to be educated in an inclusionary environment. It is believed that there is more opportunity for interaction in this environment than in any other educational environment (Craft, 1994). However, one of the important concerns in the implementation of the inclusion concept in Saudi Arabia, is that undergraduate general physical education students in Saudi Arabia do not have experience and knowledge necessary to teach students with disabilities. This may lead to negative attitudes toward students with disabilities in their classes (Alromeh, 2010; Alkhateb & Alhadedy, 2011). This concern comes from the belief that teacher's attitudes have a direct affect on the successful integration of students with disabilities into general physical education classes.

Numerous researchers have studied the relationship between attitudes of physical educators or those studying to be physical educators and related to such factors, as the

educational setting (Bursuck & Friend, 2002) and experience (Folsom-Meek & Rizzo, 2002). There are at least two other factors that may be very important and could affect individuals' attitudes, either positively or negatively, toward individuals with disabilities. These are religion (Ajzen & Fishbein, 1980; English, 1977) and culture (Ajzen & Fishbein, 1980; Selway & Ashman, 1998), which are not known to have been investigated in physical education or many other educational environments.

Therefore, the purpose of this study is to investigate the attitudes toward teaching students with disabilities were compared between undergraduate physical education students from Saudi Arabia and the United States. The participants in these countries generally have different religious beliefs, cultural background, educational settings in the public school preparation, and experience. It is believed that the results of this study may help future researchers to identify whether or not these factors can affect the attitudes of future physical educators toward individuals with specific disabilities to guide in developing the appropriate preservice curriculum.

## **Method**

### **Participants**

Two hundred and forty-three undergraduate physical education male students from one university in Saudi Arabia and five universities in the United States participated in this study. Of the 243 participants' surveyed, 49 were eliminated because they did not match the background demographic that was required in this study (i.e., no females' participants, male participants who have taken an adapted physical education and/or a



special education course, see Table 36). Specifically, 98 undergraduate male participants were purposely selected from the College of Physical Education and Sport at King Saud University in Saudi Arabia and 96 undergraduate physical education participants were purposely selected from the Kinesiology Departments at the University of North Texas ( $n = 24$ ), Stephen F. Austin State University ( $n = 20$ ), State University of New York at Cortland ( $n = 26$ ), University of Wisconsin-La Crosse ( $n = 17$ ), and the University of Utah ( $n = 9$ ), in the United States. The age of participants from Saudi Arabia were between 20 to 35 years old ( $m = 27$  years); while the age of the participants from the United States were 20 to 30 years old ( $m = 25$  years). Further, all participants had not completed an adapted physical education or special education course before this investigation.

Table 36

## Demographic Information of both Saudi Arabian and United States' Participants

| <b>Schools</b>  | King Saud University | University of North Texas | Stephen F. Austin University | University of New York at Cortland | University of Wisconsin-La Crosse | University of Utah   |
|---|----------------------|---------------------------|------------------------------|------------------------------------|-----------------------------------|----------------------|
| <b>N</b>  | 98                   | 24                        | 20                           | 26                                 | 17                                | 9                    |
| <b>Age Range</b>  | <u>27</u><br>(20-35) | <u>25</u><br>(20-30)      | <u>25</u><br>(20-30)         | <u>25</u><br>(20-30)               | <u>25</u><br>(20-30)              | <u>25</u><br>(20-30) |
| <b>Gender</b>   | m                    | m                         | m                            | m                                  | m                                 | m                    |
| <b>Have taken <sup>1</sup><br/>APA or SPE<br/>class</b> | no                   | no                        | no                           | no                                 | no                                | no                   |
| <b>Religions <sup>2</sup></b>                           |                      |                           |                              |                                    |                                   |                      |
| Christian   | 0                    | 20                        | 17                           | 19                                 | 17                                | 9                    |
| Islamic   | 98                   | 0                         | 0                            | 0                                  | 0                                 | 0                    |
| Jewish  | 0                    | 0                         | 1                            | 0                                  | 0                                 | 0                    |
| Others  | 0                    | 4                         | 2                            | 7                                  | 0                                 | 0                    |
| <b>Culture <sup>3</sup></b>                             | Arabic               | varied                    | varied                       | varied                             | varied                            | varied               |
| <b>Educational <sup>4</sup><br/>Setting</b>             | Segregated system    | Inclusionary System       | Inclusionary System          | Inclusionary System                | Inclusionary System               | Inclusionary System  |
| <b>Experience with individuals with disabilities</b>    | no                   | yes                       | yes                          | yes                                | yes                               | yes                  |

<sup>1</sup> APE = Adapted physical education; SPE = Special education.<sup>2</sup> The order of the religions in this table is based on the Alphabet (A, B, C, etc.).<sup>3</sup> The different cultures identified by the students in the United States were: African American, Asian Caucasian, Hispanic.<sup>4</sup> Participants were asked if they attended segregated or inclusionary schools when they were in grade schools.

## Instrument

The *Physical Educators' Attitude Toward Teaching the Disabilities-III* survey (Folsom-Meek & Rizzo, 2002) was used in this study. This survey consists of 12 statements, such as: 'Students labeled with a disability should be taught with nondisabled students in my regular physical education classes whenever possible'; and 'Students labeled with a disability will develop a more favorable self-concept as a result of learning motor skills in my general physical education classes with nondisabled peers.'

The disabling conditions are Physical Disability, Autism, Mild Intellectual Disability, and Emotional/Behavior Disability which are listed with a 5-point Likert scale (i.e., 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree) under each of the 12 statements was used to measure the participant's responses in this interment. The description of these disabilities were modified from the original study of PEATID-III by Folsom and Rizzo (2002) except for Autism and Physical Disability. Participants were instructed to insert the appropriate label (i.e., disability condition) when responding to each of the 12 statements. There were six positive and six negatively phrased statements were grouped in three areas: teaching students with disabilities in the general classes, effect on student learning, and need for more academic preparation to teach students with the specific disabilities.

The participants also responded to four demographic statements (i.e., religion, culture, educational setting, experience) that were added to the survey based on an

extensive review of the literature as possible factors that may impact the participants' beliefs. A 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree) under each of the four demographic statements was used to measure the participant's responses.

To properly measure the 5-point Likert scale mean scores under each area (i.e., teaching, student learning, academic preparation), the total of the item scores for each scale was divided by the number of items within that scale so that the scores can be interpreted with reference to the original 5-point Likert scale. To gain proper scale means, scores for negatively phrased items were reversed (Folsom-Meek & Rizzo, 2002).

### **Validity and Reliability of the PEATID-III**

Validity and reliability of the PEATID-III was assessed for content significance by six nationally prominent researchers with proficiency in educational programs for instructing students with disabilities (Vogler, Koranda, & Romance, 2000). Factor analysis and alpha coefficients were used to support construct validity (Cronbach, 1951). In addition, further proof of validity, as well as, reliability related to the items in PEATID-III was described in a study by Rizzo and Vispoel (1991). More recently, evidence of validity and reliability related to the PEATID-III was reported by Folsom-Meek and Rizzo (2002). The estimation of reliability was ascertained using the coefficient alpha of .88 for the total scale, which is considered 'good' (Cronbach, 1951).

In this study, the PEATID-III survey format was modified by: (a) Adding four statements related to possible influential factors (e.g., religion, culture, educational

setting, and experience; (b) Changing previous terminology to contemporary terminology in one definition used in the original survey by Folsom-Meek and Rizzo (2002) [e.g., the term *mental retardation* was changed to *intellectual disability*]; and (c) Using the definition of *autism* from the Autism Research Institute (2006); and (d) Using the definition of *physical disability* from the Foundation of Special Education (2009). The format of the survey was also slightly modified, but there were no change in the original statements.

Therefore, to ensure the modified instrument and demographic factors were still reliable before presenting them to the participants, the survey was completed twice within a one week period at Texas Woman's University in the fall of 2010 by 50 undergraduate students enrolled in an introductory motor learning class.

Specifically, Cronbach's Alpha and test and retest reliability were calculated for each subscale based on the two test administrations of the 12 statements of PEATID-III and the four demographic statements to the same 50 students from the motor learning class at Texas Woman's University. The course instructor in this class agreed to administer the survey to the participants two separate times. The estimation of reliability was ascertained using the coefficient alpha and was reported at .83 for the total scale, which is considered 'good' (Cohen, 1960). For test and retest reliability, interclass correlation procedures were used to determine whether or not there were significant differences between the test and retest trials. A repeated measures analysis of variance program that used was from the Statistical Package for the Social Sciences (SPSS, 2009). Based on the

results, there was no significant difference among the scores from each statement for test and retest trials which means the survey was statistically reliable ( $p > .05$ ).

For the Saudi Arabian participants, the 12 questionnaire statements from the PEATID-III and statements related to possible influential factors were translated from English to Arabic. To accomplish this translation, the researcher sent the survey to three professors in Saudi Arabia in the discipline of physical education, who spoke and wrote fluently in both Arabic and English, to determine if the content of the statements after the translation was deemed accurate. The three professors unanimously agreed that the content of the 48 statements and the demographic statements related to possible influential factors had the same meaning for Saudi Arabia participants as for the participants from the United States.

## **Procedures**

The survey was sent to both participant groups at the universities after the Institutional Review Board (IRB) approval was obtained from Texas Woman's University. All participants in this study received and signed a consent letter before participation. The procedures of this study were outlined in the cover letter and the right's of each participant was delineated.

The course professors in all the universities provided participants who had not completed either an adapted physical education or special education course before this investigation. Specifically, during the first adapted physical education class at these universities, the course professors described the study to all the students, and allowed

them to ask questions and/or contact the researcher directly by email. At the end of the second class, the course professors: (a) asked the participants to sit at individual desks; (b) explained to the participants the specific steps related to how to take the survey; and (c) explained that they had the option to either complete or not complete the questionnaire.

## **Research Design and Statistical Analyses**

A non-experimental distractive design that involved survey methodology (Portney & Watkins, 2009) was used to compare the attitudes of the two groups toward teaching students with disabilities. Specifically, the Repeated Measure ANOVA test was used to determine the differences in the attitudes “within” each group of participants in the areas of teaching, student learning, and academic preparation toward teaching students with specific disabilities (physical disability, autism, mild intellectual disability, and emotional/behavioral disability); and to determine the affect of the demographic factors also ‘within’ each group related to the attitude of physical educators toward teaching students with disabilities. An independent Sample *t*-test was used to analysis the differences ‘between’ the two groups. Specifically, an independent Sample *t*-test was used to determine the differences in the attitudes between the two groups in the three areas toward teaching students with specific disabilities, and to determine the affect of the demographic factors also between the two groups on the attitude of physical educators toward teaching students with specific disabilities.

## Results

Based on the analysis of data, there were significant differences “within and between” the two groups toward teaching students with specific disabilities in the three areas of teaching, student learning, and academic preparation, and in the influence of the factors of religion, culture, educational setting, and experience. The results of Saudi Arabian participants showed a significant difference in only the area of student learning ( $p = .000$ ,  $F = 6571.507$ ) which were in statements 7, 8, 9, and 10. Saudi Arabian participants had a higher mean score towards students with autism than the other disabilities in statements 7 ( $m = 3.90$ ,  $SD = 1.048$ ), 8 ( $m = 3.70$ ,  $SD = .950$ ), and 10 ( $m = 3.77$ ,  $SD = .968$ ); and students with emotional/behavior disorders ( $m = 3.56$ ,  $SD = 1.119$ ) in statement 9 (see Table 37).



Table 37

Description of the four Disabilities Under each of the 12 Survey Statements of PHATID-III with Means and Standard Deviations for Saudi Arabian and United States' Participants

| Components/Item   | Saudi Arabia<br>Participants |      | United States<br>Participants |      |
|---|------------------------------|------|-------------------------------|------|
|   | M                            | SD   | M                             | SD   |
| <i>Teaching</i>   |                              |      |                               |      |
| 1. Student's labeled _____ will not be accepted by their nondisabled peers in my regular physical education classes.                              |                              |      |                               |      |
| PD  | 2.27                         | 1.08 | 3.55                          | 1.18 |
| Autism  | 3.08                         | 1.20 | 3.53                          | 1.20 |
| Mild ID   | 2.35                         | 1.16 | 3.74                          | 1.06 |
| EBD   | 2.79                         | 1.21 | 3.57                          | 1.19 |
| 2. Students labeled _____ in my regular physical education classes with nondisabled students will disrupt the harmony of the class.               |                              |      |                               |      |
| PD  | 2.26                         | 1.11 | 3.93                          | .87  |
| Autism  | 3.03                         | 1.25 | 3.58                          | .98  |
| Mild ID   | 2.22                         | 1.12 | 3.79                          | .87  |
| EBD   | 2.79                         | 1.08 | 3.43                          | 1.17 |
| 3. Having to teach students labeled _____ in my regular physical education classes with nondisabled students places an unfair burden on teachers. |                              |      |                               |      |
| PD  | 2.30                         | 1.30 | 3.91                          | 1.03 |
| Autism  | 2.74                         | 1.19 | 3.73                          | 1.09 |
| Mild ID   | 2.47                         | 1.27 | 3.83                          | 1.01 |
| EBD   | 2.78                         | 1.32 | 3.71                          | 1.11 |
| 4. Teaching students labeled _____ in my regular physical education classes means more work for me.   |                              |      |                               |      |
| PD  | 1.48                         | .74  | 2.73                          | 1.07 |
| Autism  | 2.23                         | 1.14 | 2.60                          | 1.02 |
| Mild ID   | 1.74                         | .91  | 2.75                          | 1.12 |
| EBD   | 2.34                         | 1.24 | 2.69                          | 1.11 |

(continued)

Table 37 continued

| Components/Item   | Saudi Arabia<br>Participants |      | United States<br>Participants |     |
|---|------------------------------|------|-------------------------------|-----|
|   | M                            | SD   | M                             | SD  |
| 5. Students labeled _____ should not be taught in my regular physical education classes because they will require too much of my time.                                |                              |      |                               |     |
| PD  | 1.99                         | 1.10 | 4.15                          | .82 |
| Autism  | 2.75                         | 1.15 | 4.11                          | .79 |
| Mild ID   | 2.06                         | .99  | 4.08                          | .88 |
| EBD   | 2.76                         | 1.25 | 4.08                          | .89 |
| 6. Students labeled _____ should be taught in my regular physical education classes whenever possible.  |                              |      |                               |     |
| PD  | 3.45                         | 1.20 | 3.95                          | .92 |
| Autism  | 3.55                         | 1.11 | 3.91                          | .95 |
| Mild ID   | 3.15                         | 1.18 | 3.94                          | .95 |
| EBD   | 3.41                         | 1.16 | 3.92                          | .98 |
| <i>Student Learning</i>   |                              |      |                               |     |
| 7. One advantage of teaching students labeled _____ in my regular physical education classes is that all students will learn to work together toward achieving goals. |                              |      |                               |     |
| PD  | 3.88                         | 1.9  | 4.34                          | .68 |
| Autism  | 3.91                         | 1.5  | 4.25                          | .77 |
| Mild ID   | 3.49                         | 1.15 | 4.30                          | .76 |
| EBD   | 3.86                         | 1.8  | 4.19                          | .90 |
| 8. Teaching students labeled _____ in my regular physical education classes will motivate nondisabled students to perform motor skills.                               |                              |      |                               |     |
| PD  | 3.65                         | 1.26 | 3.62                          | .93 |
| Autism  | 3.71                         | .95  | 3.47                          | .95 |
| Mild ID   | 3.36                         | 1.26 | 3.40                          | .97 |
| EBD   | 3.54                         | 1.12 | 3.39                          | .97 |

(continued)

Table 37 continued

| Components/Item   | Saudi Arabia<br>Participants |      | United States<br>Participants |      |
|---|------------------------------|------|-------------------------------|------|
|   | M                            | SD   | M                             | SD   |
| 9. Students labeled _____ will learn more rapidly if they are taught in my regular physical education classes.  |                              |      |                               |      |
| PD  | 3.18                         | 1.03 | 3.55                          | 1.30 |
| Autism  | 3.20                         | 1.00 | 3.54                          | 1.07 |
| Mild ID   | 3.17                         | 1.02 | 3.19                          | 1.18 |
| EBD   | 3.26                         | 1.04 | 3.59                          | 1.12 |
| 10. Students labeled _____ will develop a more favorable self-concept as a result of learning motor skills in my regular physical education classes.  |                              |      |                               |      |
| PD  | 3.78                         | .95  | 3.74                          | 1.22 |
| Autism  | 3.76                         | .99  | 3.77                          | .97  |
| Mild ID   | 3.69                         | 1.02 | 3.26                          | 1.14 |
| EBD   | 3.65                         | .98  | 3.63                          | 1.04 |
| <i>Academic Preparation</i>   |                              |      |                               |      |
| 11. As a physical education teacher, I do not have sufficient training necessary to teach students labeled _____ in my regular physical education class.  |                              |      |                               |      |
| PD  | 2.76                         | .98  | 3.83                          | 1.19 |
| Autism  | 2.82                         | 1.01 | 3.38                          | 1.15 |
| Mild ID   | 2.80                         | .97  | 3.70                          | 1.30 |
| EBD   | 2.73                         | .95  | 3.15                          | 1.29 |
| 12. As a physical education teacher, I will need more coursework and training before I will be able to teach a physical education class with student's labeled _____ with nondisabled students. |                              |      |                               |      |
| PD  | 2.35                         | .98  | 1.73                          | 1.10 |
| Autism  | 2.28                         | 1.02 | 2.11                          | 1.22 |
| Mild ID   | 2.39                         | 1.07 | 1.89                          | 1.13 |
| EBD   | 2.38                         | 1.03 | 2.05                          | 1.19 |

PD = Physical Disability; Autism = Autism; Mild ID = Mild Intellectual Disability;  
EBD = Emotional/Behavior Disorder

In regards to the influence of the factors of religion, culture, educational setting, and experience on the attitudes of the undergraduate physical education students in Saudi Arabia toward teaching students with disabilities, there were significant differences between the four factors ( $F = 1296.205, p = .000$ ) with a higher mean score ( $m = 3.73$ ) on the religious factor (see Table 38).

Table 38

Demographic Data of the Participants From Saudi Arabia and United States

| Demographics               | Sample                    |                            |
|----------------------------|---------------------------|----------------------------|
|                            | Saudi Arabian Participant | United States Participants |
| <b>Religion</b>            |                           |                            |
| M                          | 3.73                      | 3.57                       |
| SD                         | 1.35                      | 1.01                       |
| <b>Culture</b>             |                           |                            |
| M                          | 3.52                      | 3.34                       |
| SD                         | 1.18                      | 1.13                       |
| <b>Educational setting</b> |                           |                            |
| M                          | 3.57                      | 3.14                       |
| SD                         | 1.30                      | 1.13                       |
| <b>Experience</b>          |                           |                            |
| M                          | 3.57                      | 3.19                       |
| SD                         | 1.37                      | 1.15                       |

Based on the results of the United States' participants, there was a significant difference between the three areas in only the student learning area ( $p = .000$ ,  $F = 6675.37$ ) related to statements 7, 8, 9, and 10 (see Table 36). Based on the results of the participants in the United States, there were significant differences in only statement eight (see Table 37). The participants in this country had a higher mean score towards students with a physical disability than the other disabilities related to this statement ( $m = 3.62$ ,  $SD = .969$ ).

Based on the findings of the influence of the factors (i.e., religion, culture, educational setting, experience) on the attitudes of the participants from United States toward teaching students with disabilities, there were significant differences between the four factors ( $F = 1136.54$ ,  $p = .000$ ). The United States' participants showed a higher mean score in the religious factor ( $m = 3.58$ ) than the other three factors (see Table 38).

For the comparison of the attitudes between undergraduate physical education students in Saudi Arabia and the United States, the 12 statements were computed in the three areas and there was a significant difference between the two groups in the area of teaching only ( $t = -13.45$ ,  $p = .000$ ) which was related to statements 1, 2, 3, 4, 5, and 6 in Table 37. However, there were no significant differences in the areas of student learning and academic preparation between the two groups. Specifically, the participants from the United States had a higher mean score toward teaching students with the specific disabilities ( $m = 3.63$ ) than the participants from Saud Arabia ( $m = 2.58$ ). The results in the three areas of teaching, student learning, and academic preparation between both

groups are provided in Table 39, while Table 37 provides the description of the means and standard deviations for Saudi Arabia and United States' participants in the teaching statements.

Table 39

Description of the Comparison in the Three Areas of Teaching, Learning, and Academic Preparation Between Saudi Arabian and United States' Participants

| Components / Item          | M    | SD   |
|----------------------------|------|------|
| Teaching                   |      |      |
| Saudi Arabian Participants | 2.58 | .479 |
| United States Participants | 3.63 | .597 |
| Learning                   |      |      |
| Saudi Arabian Participants | 3.60 | .649 |
| United States Participants | 3.64 | .653 |
| Academic Preparation       |      |      |
| Saudi Arabian Participants | 3.02 | .487 |
| United States Participants | 2.95 | .476 |

Based on the findings of the group comparisons related to the influence of the four factors, there were no significant differences in the affect of religion, culture, and educational settings on the attitudes of undergraduate physical education students toward teaching students with disabilities between the participants from Saudi Arabia and the United States. However, based on the results, there was a significant difference on the affect of experience on the attitudes of future physical educators toward teaching students with disabilities ( $t = 2.11, p = 0.03$ ). Specifically, Saudi Arabian participants showed higher mean scores in the need for experience ( $m = 3.57$ ) than participants in the United States ( $m = 3.18$ ). Comparison of the influence of the four factors on the attitudes between the participants from Saudi Arabia and United States are presented in Table 38.

## **Discussion**

This study is the first study related to comparing the attitudes between undergraduate physical education students from Saudi Arabia and United States in the areas of teaching, student learning, and academic preparation toward teaching students with specific disabilities. It was also the first study related to examining the affect of these four factors (i.e., religion, culture, educational setting, experience) which may impact attitudes between not only undergraduate physical education participants, but also between these participants from Saudi Arabia and United States. Moreover, the participants from Saudi Arabia who were chosen from the College of Physical Education and Sport were from all the regions of Saudi Arabia because this college is considered the major school for physical education preparation in the country. The participants from the United States

were also chosen from four states which are located in different geographic regions, including the West (Utah), Southwest (Texas), Midwest (Wisconsin), and Northeast (New York).

Participants from these countries also had different backgrounds related to the four factors that were examined (i.e., religion, culture, educational setting, experience). For instance, participants from Saudi Arabia were Muslim, while the majority of the participants who participated from the United States were Christian. Further, participants from Saudi Arabia were from one cultural background, Arabic, while in the United States were mostly from different cultural backgrounds (i.e., African American, Asian, Caucasian, Hispanic). Related to the educational setting, participants from Saudi Arabia were educated in the elementary, middle, and high schools separately from their peers with disabilities, while participants from the United States were educated in an inclusionary environment where students with disabilities were included in general class environments. Related to the experience differences, participants from United States have more experience in studying, reacting, and relationships with students and adults with disabilities than participants from Saudi Arabia.

The attitudes of undergraduate physical education students toward teaching students with a physical disability, autism, mild intellectual disability, and emotional/behavior disorder in the three areas of teaching, student learning, and academic preparation were examined in this study. These three areas are supported by the Theory of Reasoned Action/ Planning Behavior (Ajzen & Fishbein, 1980) as important areas that may



influence individuals' attitudes, and considered as important areas for future physical educators to be successful in teaching students with disabilities (Folsom-Meek & Rizzo, 2002). An analysis of the data collected in this investigation revealed that there were significant differences “within and between” the two groups (Saudi Arabia & United States) toward teaching students with specific disabilities in these three areas.

The findings of Saudi Arabian participants indicated that there was a significant difference in only the area of student learning. Saudi Arabian participants had more positive attitudes towards students with autism and emotional/behavior disorders than the other two disabilities related to student learning. This finding was similar to the findings of Kodish, Hodges Kulinna, Martin, Pangrazi, & Darst (2010) in the United States and Zamzami (2001) in Saudi Arabia, but it was not supported by Kim (2001) in the United States. It should be noted that in this study, Kim compared the attitudes of only physical educators who have experience teaching students with disabilities, not undergraduate physical education students. This may have influence the differing results.

In contrast, the findings of the United States' participants indicated that there was also a significant difference in the area of student learning, but the participants had more positive attitudes toward students with physical disabilities. The findings of the participants from the United States were similar and supported by other researchers, such as Downs and Williams (1994) in the United States and Jerlinder, Danermarkb and Gilla (2010) in Swedish. However, the findings were not supported by Aufsesser (1982) in the United States who examined gender as a factor. This researcher reported that females had

positive attitudes toward teaching students with physical disabilities than males who showed negative attitudes.

In the comparison between the two groups of the participants in the three areas, the participants from the United States had more positive attitudes toward teaching students with a specific disability than the participants from Saudi Arabia. Therefore, the participants from the United States who had positive attitudes related to teaching, supported the Theory of Reasoned Action/ Planning Behavior (Ajzen & Fishbein 1980). This indicated that teaching individuals with disabilities can change the individuals' attitudes.

The findings related to teaching is comparable to the results of previous researchers, such as Rizzo and Kirkendall (1995) in the United States who examined the attitudes of preservice physical educators toward teaching students with emotional/behavior disorders and intellectual disabilities. These findings are also similar to the findings of Downs and Williams (1994) who evaluated the attitudes of undergraduate students from universities in Denmark, Belgium, Portugal, and England toward including students with disabilities in the general physical education classes. Furthermore, Campbell and Gilmore (2003) in Australia reported that the undergraduate physical education students not only acquired more accurate knowledge about intellectual disabilities, but their attitudes towards students with disabilities, in general, became more positive.

In addition, Chen and Jin (2006) in Hong Kong stated that even though preservice physical educators had concerns and different opinions toward teaching students with

disabilities, overall there was support for the inclusion concept and positive attitudes towards teaching students with disabilities. Similar results were reported by Jeong (2008) in Korea and Zamzami (2001) in Saudi Arabia who evaluated physical education teachers' beliefs and intentions toward teaching students with disabilities.

On the other hand, Block and Rizzo (1995) in the United States, Bartoňová, Kudláček, and Bressan (2007) in the Republic of South Africa, and Papadopoulou, Kokaridas, Papanikolaou, and Patsiaouras (2004) in Greece did not support the results of the present investigation. However, these researchers compared the attitudes by gender and/or the levels of the disabilities (i.e., moderate, severe) in their investigations. Neither factors were addressed in this present investigation.

The area of student learning related to students with varying abilities, learning together with their peers in a physical education class. According to Folsom-Meek and Rizzo (2001), the area of student learning not only includes both groups of students working together, but students without disabilities being more motivated, and the students with disabilities learning more rapidly in classes with their peers who were nondisabled.

In this investigation, there was no significant differences between the participants from Saudi Arabia and the United States in the area of student learning because all participants from both groups strongly agreed that implementing inclusionary physical education classes can positively influence learning for both students with and without disabilities. This finding was supported by numerous researchers such as Block and

Zeman, (1996); Rarick and Beuter, (1985); Vogler, Koranda, and Romance, (2000) in the United States who reported that including students with disabilities do not negatively influence the learning of their peers without disabilities. However, this finding was not supported by Folsom-Meek and Rizzo (2002) who reported that future professionals were concerned about the student learning. In addition, all the participants in Folsom-Meek and Rizzo' study had already taken an adapted physical education class, which may caused differing result.

In the area of academic preparation to teach students with disabilities was an important area related to attitudes toward teaching students with disabilities. Even though there were just two items that comprised this area, these items were related to the need for additional coursework and the need for more academic training to teach students with disabilities. In the present investigation, all the participants in both groups agreed that there was a need for academic preparation.

This result is comparable and supported by the results of Aufsesser (1982); Rizzo and Kirkendall (1995); Kowalski and Rizzo (1996); Marston and Leslie (1983); Rizzo (1986); and Rizzo and Vispoel (1991) in the United States who reported that the more academic preparation, the more positive the attitudes were toward teaching/working with individuals with disabilities. However, there were no research studies that could be located that indicated that participants did not agree about the importance of academic preparation in positively influencing physical educators' attitudes toward teaching students with disabilities.

There were significant differences ‘within’ and ‘between’ the two groups related to the importance of religion, culture, educational setting, and experience. Based on the Theory of Reasoned Action/ Planning Behavior (Ajzen & Fishbein 1980), these four factors may influence individuals’ attitudes. The findings of ‘within’ each group were in strong agreement about the influence of the religious factor than the other factors. This result is strongly supported by the participants’ religious background (Islamic & Christianity). Clearly these two religions encourage people to have a positive attitude toward individuals with disabilities (Hasnain, Shaikh, & Shanawani, 2008; Clawson, 2007).

Based on the results ‘between’ the two groups, there was a significant affect in only the experience factor. This indicated that Saudi Arabian participants who have not been educated in an inclusionary environment before this investigation considered experience as a more important factor that impacts the physical educators’ attitudes toward teaching students with specific disabilities than those participants from the United States.

There are numerous other investigators (Folsom-Meek, Nearing, Grotheluschen, & Krampf, 1999; Gouveia, 1997; Rizzo & Kirkendall, 1995; Kowalski & Rizzo, 1996; Marston & Leslie, 1983; Patrick, 1987; Rizzo, 1993; Rizzo & Vispoel, 1991; Rizzo, 1987; Rizzo, 1986; Starr, 2001) who reported similar results. These investigators stated that the experience factor is very important to positively change the attitudes of the physical educators and future physical educators toward teaching students with disabilities.

The educational environment factor is related to the setting where the participants attended public school. All participants in both countries agreed that this factor was very important. In addition, there are many other investigators such as Bursuck and Friend (2002), LaMaster, Gall, and Siedentop (1998), Bursuck and Friend (2002), Gouveia (1997), Sharpe (2001), Starr (2001), Rizzo and Vispoel (1991), and Rizzo and Wright (1987) who supported this finding. These researchers examined the attitudes of preservice physical educators toward teaching in an inclusionary physical education class environment. However, there were not any specific research studies that could be located related to the affect of a physical education segregated environment on preservice physical educators attitudes toward teaching students with disabilities.

The findings of culture and religious factors indicated that there were no significant differences because all participants from the two groups were in agreement on the importance of influence these factors on the physical educators' attitudes toward teaching students with disabilities. This positive attitude is supported and taught by both participants' cultural and religions' backgrounds (Hasnain, Shaikh, & Shanawani, 2008; Clawson, 2007; Selway & Ashman, 1998). However, there were no research studies that could be located related to the affect of these two factors on the physical educators or undergraduate physical educators to compare with the results of this study.

## **Conclusions**

The results of this investigation are considered reasonable. For example, participants from Saudi Arabia showed lower attitudes toward teaching students with specific disabilities than participants from the United States. However, Saudi Arabian participants showed more positive attitudes toward the importance of the experience factor in influencing the physical educators' positive attitudes toward teaching students with specific disabilities. Therefore, Saudi Arabian specialists may need to review the appropriateness of the segregated educational system in physical education classes, which does not provide the students an opportunity to experience and interact with students with disabilities as an inclusionary educational system does. Further, the faculty members in physical education teacher preparation in the universities in Saudi Arabia may need to develop more appropriate preservice curriculum related to attitudinal development toward individuals with disabilities for their undergraduate physical education students.

For the participants from the United States, it seems that their opportunities to interact with students with disabilities through the inclusionary system developed more positive attitudes toward teaching individuals with disabilities. Therefore, specialists in the public schools from the United States may need to expand and refine appropriate methods and strategies to make inclusion even more successful. The faculty members in physical education teacher preparation in the universities in the United States also may consider developing new strategies or modify the ones they are now using to continue reinforcing positive attitude toward students with disabilities.

It is recommended in future studies that the following be addressed: Include females and then use gender as a factor, compare the attitudes of physical educators who have teaching experience in both countries, and use different types of disability conditions and levels of disabilities (i.e., mild, moderate, severe) to determine whether or not the results will be different than in this investigation.



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## Appendix A

### PEATID-III Survey in English

**THE RETURN OF YOUR COMPELTED QUESTIONNAIRE CONSITUTES YOUR INFORMED  
CONSENT TO ACT AS A PARTICIPANT IN THIS RESEARCH**

Age: \_\_\_\_\_

Gender: (a) Male (b) Female

Cultural Background (e.g., Asian, Arabic, European, Indian):  
\_\_\_\_\_

Optional - Religious Faith: \_\_\_\_\_

Year in College:

Freshman \_\_\_\_\_

Sophomore \_\_\_\_\_

Junior \_\_\_\_\_

Senior \_\_\_\_\_

Do you have any family member with a disability? (a) Yes (b) No

When you were in school (K – 12) were any of students disabled? (a) Yes (b) No

If yes, what was/were the type(s) of disabilities  
\_\_\_\_\_

If yes, did any of them formally participate in physical education classes? (a) Yes (b) No

Is your emphasis area:

~Teaching in physical education? (a) Yes (b) No

~Coaching? (a) Yes (b) No

~Corporate fitness? (a) Yes (b) No

~Other? Please explain \_\_\_\_\_

Have you ever taken any other adapted physical education courses? (a) Yes (b) No

Have you ever taken any special education courses? (a) Yes (b) No

**Instructions:** Based on each statement, when you become a teacher, please place an "X" for **each** disability listed in the indicated boxes.

**1. Student's labeled \_\_\_\_\_ will not be accepted by their nondisabled peers in my regular physical education classes.**

| Disabilities                   | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
|--------------------------------|----------------|-------|----------------------------|----------|-------------------|
| Physical Disabilities          |                |       |                            |          |                   |
| Autism                         |                |       |                            |          |                   |
| Intellectual Disabilities      |                |       |                            |          |                   |
| Emotional/Behavioral Disorders |                |       |                            |          |                   |

**2. Students labeled \_\_\_\_\_ in my regular physical education classes with nondisabled students will disrupt the harmony of the class.**

| Disabilities                   | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
|--------------------------------|----------------|-------|----------------------------|----------|-------------------|
| Physical Disabilities          |                |       |                            |          |                   |
| Autism                         |                |       |                            |          |                   |
| Intellectual Disabilities      |                |       |                            |          |                   |
| Emotional/Behavioral Disorders |                |       |                            |          |                   |

over 

**3. Having to teach students labeled \_\_\_\_\_ in my regular physical education classes with nondisabled students places an unfair burden on teachers.**

| Disabilities                   | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
|--------------------------------|----------------|-------|----------------------------|----------|-------------------|
| Physical Disabilities          |                |       |                            |          |                   |
| Autism                         |                |       |                            |          |                   |
| Intellectual Disabilities      |                |       |                            |          |                   |
| Emotional/Behavioral Disorders |                |       |                            |          |                   |

**4. Teaching students labeled \_\_\_\_\_ in my regular physical education classes means more work for me.**

| Disabilities                   | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
|--------------------------------|----------------|-------|----------------------------|----------|-------------------|
| Physical Disabilities          |                |       |                            |          |                   |
| Autism                         |                |       |                            |          |                   |
| Intellectual Disabilities      |                |       |                            |          |                   |
| Emotional/Behavioral Disorders |                |       |                            |          |                   |

**5. Students labeled \_\_\_\_\_ should not be taught in my regular physical education classes because they will require too much of my time.**

| Disabilities                   | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
|--------------------------------|----------------|-------|----------------------------|----------|-------------------|
| Physical Disabilities          |                |       |                            |          |                   |
| Autism                         |                |       |                            |          |                   |
| Intellectual Disabilities      |                |       |                            |          |                   |
| Emotional/Behavioral Disorders |                |       |                            |          |                   |

over





**6. Students labeled \_\_\_\_\_ should be taught in my regular physical education classes whenever possible.**

| Disabilities                   | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
|--------------------------------|----------------|-------|----------------------------|----------|-------------------|
| Physical Disabilities          |                |       |                            |          |                   |
| Autism                         |                |       |                            |          |                   |
| Intellectual Disabilities      |                |       |                            |          |                   |
| Emotional/Behavioral Disorders |                |       |                            |          |                   |

**7. One advantage of teaching students labeled \_\_\_\_\_ in my regular physical education classes is that all students will learn to work together toward achieving goals.**

| Disabilities                   | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
|--------------------------------|----------------|-------|----------------------------|----------|-------------------|
| Physical Disabilities          |                |       |                            |          |                   |
| Autism                         |                |       |                            |          |                   |
| Intellectual Disabilities      |                |       |                            |          |                   |
| Emotional/Behavioral Disorders |                |       |                            |          |                   |

**8. Teaching students labeled \_\_\_\_\_ in my regular physical education classes will motivate nondisabled students to perform motor skills.**

| Disabilities                   | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
|--------------------------------|----------------|-------|----------------------------|----------|-------------------|
| Physical Disabilities          |                |       |                            |          |                   |
| Autism                         |                |       |                            |          |                   |
| Intellectual Disabilities      |                |       |                            |          |                   |
| Emotional/Behavioral Disorders |                |       |                            |          |                   |

over 

**9. Students labeled \_\_\_\_\_ will learn more rapidly if they are taught in my regular physical education classes.**

| Disabilities                   | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
|--------------------------------|----------------|-------|----------------------------|----------|-------------------|
| Physical Disabilities          |                |       |                            |          |                   |
| Autism                         |                |       |                            |          |                   |
| Intellectual Disabilities      |                |       |                            |          |                   |
| Emotional/Behavioral Disorders |                |       |                            |          |                   |

**10. Students labeled \_\_\_\_\_ will develop a more favorable self-concept as a result of learning motor skills in my regular physical education classes.**

| Disabilities                   | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
|--------------------------------|----------------|-------|----------------------------|----------|-------------------|
| Physical Disabilities          |                |       |                            |          |                   |
| Autism                         |                |       |                            |          |                   |
| Intellectual Disabilities      |                |       |                            |          |                   |
| Emotional/Behavioral Disorders |                |       |                            |          |                   |

**11. As a physical education teacher, I do not have sufficient training necessary to teach students labeled \_\_\_\_\_ in my regular physical education class.**

| Disabilities                   | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
|--------------------------------|----------------|-------|----------------------------|----------|-------------------|
| Physical Disabilities          |                |       |                            |          |                   |
| Autism                         |                |       |                            |          |                   |
| Intellectual Disabilities      |                |       |                            |          |                   |
| Emotional/Behavioral Disorders |                |       |                            |          |                   |

over



**12 . As a physical education teacher, I will need more coursework and training before I will be able to teach a physical education class with student's labeled \_\_\_\_\_ with nondisabled students.**

| <b>Disabilities</b>            | <b>Strongly Agree</b> | <b>Agree</b> | <b>Neither Agree nor Disagree</b> | <b>Disagree</b> | <b>Strongly Disagree</b> |
|--------------------------------|-----------------------|--------------|-----------------------------------|-----------------|--------------------------|
| Physical Disabilities          |                       |              |                                   |                 |                          |
| Autism                         |                       |              |                                   |                 |                          |
| Intellectual Disabilities      |                       |              |                                   |                 |                          |
| Emotional/Behavioral Disorders |                       |              |                                   |                 |                          |

From the article of Folsom-Meek & Rizzo (2002) "Validating the Physical Educators' Attitude Toward Teaching Individuals with Disabilities III (PEATID III) Survey for Future Professionals."

## Appendix B

### Influence of the Four Factors on the Participants in the United States

**Instructions:** Looking at the variables religion, culture, inclusion setting, and experience with individuals with disabilities, please place an “X” indicating your level of agreement for each variable.

~ **There is no effect of \_\_\_\_\_ on people’s attitudes toward teaching students with disabilities.**

| Factors  | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
|--|----------------|-------|----------------------------|----------|-------------------|
| Religion   |                |       |                            |          |                   |
| Culture  |                |       |                            |          |                   |
| Educational Setting<br>(e.g., inclusion or segregation system) |                |       |                            |          |                   |
| Experience   |                |       |                            |          |                   |

### Definitions:

- **Religion:** Belief in and worship of a god or gods, or a set of beliefs concerning the origin and purpose of the universe (i.e., Buddhism, Christian, Islam, Jewish).
- **Culture:** Particular society at a particular time and place (e.g., the community acting, feeling, and thinking).
- **Educational Setting:** (a) segregation (students with disabilities receive their education in separate schools), (b) inclusion (students with disabilities receive their education in regular schools with their peers without disabilities).
- **Experience with individuals with disabilities:** Knowledge of working with students with disabilities.

Are there any comments related to any questions in this survey that you would like to add (circle answer)?

(a) Yes

(b) No

If yes, please provide your comments below:

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## Appendix C

### PEATID-III Survey in Arabic

العمر: \_\_\_\_\_

هل هناك أي فرد من عائلتك لديه إعاقة (أ) نعم (ب) لا

إذا الإجابة نعم

عمر المعاق \_\_\_\_\_  
الجنس: (أ) ذكر (ب) أنثى

نوع الإعاقة: \_\_\_\_\_

هل تخصصك الدقيق:

- تدريس مادة التربية البدنية؟ (أ) نعم (ب) لا

- تدريب؟ (أ) نعم (ب) لا

- أخرى: \_\_\_\_\_

هل سبق أن درست أي مادة تربية بدنية خاصة؟ (أ) نعم (ب) لا

هل سبق أن درست أي مادة تربية خاصة؟ (أ) نعم (ب) لا

هل تود إضافة أي ملاحظة تتعلق بأي سؤال من أسئلة هذا الاستطلاع؟ (أ) نعم (ب) لا

إذا الإجابة نعم الرجاء إضافتها في الأسفل:

الرجاء اختيار إجابة واحدة من الإجابات الخمس (مثال: أوافق) أمام كل نوع من أنواع الإعاقات الخمس في الأسفل

### شرح الإعاقات :

- الإعاقة الجسدية (مثال: قطع أو عطل في إحدى الأطراف)
- التوحد: إعاقة تؤثر على طريقة التحدث والتفاعل مع الآخرين (مثال: صعوبة في الإتصال الشفهي وغير الشفهي)
- الإعاقة العقلية: توقف أو عدم اكتمال نمو الدماغ نتيجة لمرض أو إصابة قبل سن المراهقة أو بسبب عوامل جينية (مثال: الطفل المنغولي)
- إعاقة اضطراب السلوك: (مثال: العدوانية)

### 1. الطلاب ذوي \_\_\_\_\_ سوف لن يتم قبولهم من زملائهم الغير معاقين في حصة التربية البدنية.

| الإعاقات            | أوافق بشدة | أوافق | غير متأكد | غير موافق | غير موافق بشدة |
|---------------------|------------|-------|-----------|-----------|----------------|
| الإعاقة الجسدية     |            |       |           |           |                |
| التوحد              |            |       |           |           |                |
| الإعاقة العقلية     |            |       |           |           |                |
| إعاقة اضطراب السلوك |            |       |           |           |                |

### 2. دمج طلاب \_\_\_\_\_ في حصة التربية البدنية العامة مع أقرانهم الغير معاقين سوف يعرقل مسار الحصة.

| الإعاقات            | أوافق بشدة | أوافق | غير متأكد | غير موافق | غير موافق بشدة |
|---------------------|------------|-------|-----------|-----------|----------------|
| الإعاقة الجسدية     |            |       |           |           |                |
| التوحد              |            |       |           |           |                |
| الإعاقة العقلية     |            |       |           |           |                |
| إعاقة اضطراب السلوك |            |       |           |           |                |

تابع 



3. إرغام معلمي التربية البدنية لتدريس طلاب \_\_\_\_\_ في حصصهم مع الطلاب الغير معاقين غير عادل لهؤلاء المعلمين.

| الإعاقات            | أوافق بشدة | أوافق | غير متأكد | غير موافق | غير موافق بشدة |
|---------------------|------------|-------|-----------|-----------|----------------|
| الإعاقة الجسدية     |            |       |           |           |                |
| التوحد              |            |       |           |           |                |
| الإعاقة العقلية     |            |       |           |           |                |
| إعاقة اضطراب السلوك |            |       |           |           |                |

4. تدريس طلاب \_\_\_\_\_ مع الطلاب الغير معاقين في حصة التربية البدنية يتطلب مني الكثير من العمل داخل حصة التربية البدنية.

| الإعاقات            | أوافق بشدة | أوافق | غير متأكد | غير موافق | غير موافق بشدة |
|---------------------|------------|-------|-----------|-----------|----------------|
| الإعاقة الجسدية     |            |       |           |           |                |
| التوحد              |            |       |           |           |                |
| الإعاقة العقلية     |            |       |           |           |                |
| إعاقة اضطراب السلوك |            |       |           |           |                |

تابع



5. يفترض عدم تدريس طلاب في حصة التربية البدنية مع الطلاب الغير معاقين لانهم سوف يتطلبوا الكثير من وقتي في حصة التربية البدنية.

| الإعاقات            | أوافق بشدة | أوافق | غير متأكد | غير موافق | غير موافق بشدة |
|---------------------|------------|-------|-----------|-----------|----------------|
| الإعاقة الجسدية     |            |       |           |           |                |
| التوحد              |            |       |           |           |                |
| الإعاقة العقلية     |            |       |           |           |                |
| إعاقة اضطراب السلوك |            |       |           |           |                |

6. يفترض تدريس طلاب \_\_\_\_\_ مع زملائهم الغير معاقين في حصة التربية البدنية متى تسنى ذلك.

| الإعاقات            | أوافق بشدة | أوافق | غير متأكد | غير موافق | غير موافق بشدة |
|---------------------|------------|-------|-----------|-----------|----------------|
| الإعاقة الجسدية     |            |       |           |           |                |
| التوحد              |            |       |           |           |                |
| الإعاقة العقلية     |            |       |           |           |                |
| إعاقة اضطراب السلوك |            |       |           |           |                |

7. أحد أسباب تدريس طلاب \_\_\_\_\_ في حصة التربية البدنية مع زملائهم الغير معاقين هو أن يتعلموا سويًا كيفية العمل بشكل جماعي لتحقيق أهداف الدرس.

| الإعاقات            | أوافق بشدة | أوافق | غير متأكد | غير موافق | غير موافق بشدة |
|---------------------|------------|-------|-----------|-----------|----------------|
| الإعاقة الجسدية     |            |       |           |           |                |
| التوحد              |            |       |           |           |                |
| الإعاقة العقلية     |            |       |           |           |                |
| إعاقة اضطراب السلوك |            |       |           |           |                |



تابع  
8. تدريس طلاب \_\_\_\_\_ في حصة التربية البدنية سوف يحفز الطلاب الغير معاقين ليؤدوا المهارات الحركية.

| الإعاقات            | أوافق بشدة | أوافق | غير متأكد | غير موافق | غير موافق بشدة |
|---------------------|------------|-------|-----------|-----------|----------------|
| الإعاقة الجسدية     |            |       |           |           |                |
| التوحد              |            |       |           |           |                |
| الإعاقة العقلية     |            |       |           |           |                |
| إعاقة اضطراب السلوك |            |       |           |           |                |

9. طلاب \_\_\_\_\_ سوف يتعلمون بشكل أسرع عندما يتعلمون في حصتي مع زملائهم الطلاب الغير معاقين.

| الإعاقات            | أوافق بشدة | أوافق | غير متأكد | غير موافق | غير موافق بشدة |
|---------------------|------------|-------|-----------|-----------|----------------|
| الإعاقة الجسدية     |            |       |           |           |                |
| التوحد              |            |       |           |           |                |
| الإعاقة العقلية     |            |       |           |           |                |
| إعاقة اضطراب السلوك |            |       |           |           |                |

10. طلاب \_\_\_\_\_ سوف ينمو انطباع ايجابي عن ذاتهم كنتيجة لتعلم المهارات الحركية في حصة التربية البدنية العامة مع الطلاب الغير معاقين.

| الإعاقات            | أوافق بشدة | أوافق | غير متأكد | غير موافق | غير موافق بشدة |
|---------------------|------------|-------|-----------|-----------|----------------|
| الإعاقة الجسدية     |            |       |           |           |                |
| التوحد              |            |       |           |           |                |
| الإعاقة العقلية     |            |       |           |           |                |
| إعاقة اضطراب السلوك |            |       |           |           |                |

تابع



11. كمعلم تربية بدنية لا املك التدريب الكافي الضروري لتعليم طلاب \_\_\_\_\_ مع الطلاب الغير معاقين في حصتي.

| الإعاقات            | أوافق بشدة | أوافق | غير متأكد | غير موافق | غير موافق بشدة |
|---------------------|------------|-------|-----------|-----------|----------------|
| الإعاقة الجسدية     |            |       |           |           |                |
| التوحد              |            |       |           |           |                |
| الإعاقة العقلية     |            |       |           |           |                |
| إعاقة اضطراب السلوك |            |       |           |           |                |

12. كمعلم تربية بدنية, أنا سوف أحتاج تعليم وتدريب قبل أن أستطيع تدريس التربية البدنية لطلاب \_\_\_\_\_ مع الطلاب الغير معاقين.

| الإعاقات            | أوافق بشدة | أوافق | غير متأكد | غير موافق | غير موافق بشدة |
|---------------------|------------|-------|-----------|-----------|----------------|
| الإعاقة الجسدية     |            |       |           |           |                |
| التوحد              |            |       |           |           |                |
| الإعاقة العقلية     |            |       |           |           |                |
| إعاقة اضطراب السلوك |            |       |           |           |                |

## Appendix D

### Influence of the Four Factors on the Participants in Saudi Arabia

الرجاء اختيار إجابة واحدة أمام كل عامل من العوامل الخمسة ( الجنس، الدين، العادات والتقاليد، نظام التعليم، و الخبرة).

ضع علامة صح أمام الخيار المناسب في نظرك

- لا يوجد تأثير من \_\_\_\_\_ على مواقف الأشخاص تجاه الأفراد المعاقين.

| العوامل                             | أوافق بشدة | أوافق | غير متأكد | غير موافق | غير موافق بشدة |
|-------------------------------------|------------|-------|-----------|-----------|----------------|
| الدين                               |            |       |           |           |                |
| العادات والتقاليد                   |            |       |           |           |                |
| نظام التعليم (مثال: الدمج أو العزل) |            |       |           |           |                |
| الخبرة                              |            |       |           |           |                |

#### تعريفات

- الجنس (مثال: ذكر، أنثى)
- الدين (مثال: الدين الإسلامي، المسيحي، اليهودي)
- العادات والتقاليد: (التصرفات والأنشطة والمعتقدات التي يتسم بها مجتمع واحد)
- نظام التعليم: (الدمج) مثال: دمج الطلاب المعاقين في المدارس العامة مع الطلاب الغير معاقين، (العزل) مثال: تعليم الطلاب المعاقين في مدارس خاصة بعيداً عن الطلاب الغير معاقين.
- الخبرة (مثال: خبرة في تدريس الطلاب المعاقين لعدة سنوات).

Appendix E

Letters in English to Request  
Participating in the Study

Dear Student,

You are invited to participate in a research study related to comparing the attitudes of undergraduate physical education students toward teaching students with disabilities. We hope to learn about the attitudes of undergraduates in both countries toward teaching students with disabilities. You are being asked to participate in this study because you are the undergraduate physical education student who will be studied.

If you decide to participate in the project, please complete the attached survey and write your responses as you believe without asking any help from any student. If you have any questions concerning the rights of subjects involved in research studies, please call the Office of Sponsored Programs at 940-830-1935. Your voluntary completion of the survey constitutes consent to participate. Thank you for assisting us with this study.

Sincerely,

Tariq Ali Alsallhe, ABD  
Texas Woman's University  
Denton, TX, USA  
940-830-1935  
[talsalhe@twu.edu](mailto:talsalhe@twu.edu)



## Appendix F

### Letters in Arabic to Request Participating in the Study

عزيزي الطالب

السلام عليكم ورحمة الله وبركاته

أنت مدعو للمشاركة في دراسة تهدف إلى مقارنة اتجاهات طلاب البكالوريوس في تخصص التربية البدنية نحووا  
تدريس الطلاب المعاقين في حصص التربية البدنية في المدارس العامة. نحن نطمح للتعرف عن مدى شعورك  
وانطباعك تجاه موضوع هذه البحث.

أنت مدعو للمشاركة لأنك طالب في كلية التربية البدنية والرياضة في جامعة الملك سعود. إذا قررت المشاركة في  
هذه الدراسة، الرجاء الإجابة على الأسئلة في النموذج المرفق بدون الاستعانة بأي مساعدة لأن الأسئلة تتعلق بشعورك  
وليس شعور وانطباع الآخرين. عند المشاركة، الرجاء عدم كتابة اسمك في الاستبيان ووضع فقط رمز لأسمك لضمان  
سرية إجاباتك.

شكراً للمشاركة وأرجو إرسال أي استفسار أو آراء على عنوان الباحث في الأسفل.

طارق علي الصالحي

جامعة امرأة تكساس

تكساس\ الولايات المتحدة الأمريكية

هاتف 001 903 830 1935

البريد الإلكتروني: tariq\_alsalhe@hotmail.com

1421 Eufemia Street

Denton, TX, the USA

Appendix G

Institutional Review Board (IRB) Approval

November 15, 2010

Mr. Tariq Alsalha  
1421 Eufemia  
Denton, TX 76207

Dear Mr. Alsalha:

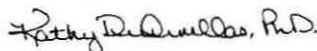
*Re: Comparison of the Attitudes between Undergraduate Physical Education Students in Saudi Arabia and the United States toward Teaching Students with Disabilities (Protocol #: 16277)*

The above referenced study has been reviewed by the TWU Institutional Review Board (IRB) and was determined to be exempt from further review.

If applicable, agency approval letters must be submitted to the IRB upon receipt PRIOR to any data collection at that agency. Because a signed consent form is not required for exempt studies, the filing of signatures of participants with the TWU IRB is not necessary.

Any modifications to this study must be submitted for review to the IRB using the Modification Request Form. Additionally, the IRB must be notified immediately of any unanticipated incidents. If you have any questions, please contact the TWU IRB.

Sincerely,



Dr. Kathy DeOrnellas, Chair  
Institutional Review Board - Denton

cc. Dr. Charlotte Sanborn, Department of Kinesiology  
Dr. Ron French, Department of Kinesiology  
Graduate School

## Appendix H

Permission by Email from Dr. Rizzo

From:  
"Terry Rizzo" <[trizzo@csusb.edu](mailto:trizzo@csusb.edu)>  
To:  
"Tariq Alsalhe" <[talsalhe@twu.edu](mailto:talsalhe@twu.edu)>  
Sent: Monday, December 13, 2010 11:56 AM

Hi Tariq,

Please note that you can use any version of the survey for your research endeavors.

Please give my kindest personal regards to Dr. French.

tr

-----Original Message-----

From: Alsalhe, Tariq [<mailto:TAlsalhe@mail.twu.edu>]

Sent: Sunday, December 12, 2010 5:57 PM

To: [trizzo@csusb.edu](mailto:trizzo@csusb.edu)

Subject: PHATID-III

## Appendix I

### Consent to Participate in Research

TEXAS WOMAN'S UNIVERSITY  
CONSENT TO PARTICIPATE IN RESEARCH

**Title: Comparison of the Attitudes Between Undergraduate Physical Education Students in Saudi Arabia and the United States Toward Teaching Students with Disabilities.**

Investigator: Tariq Alsalhe ..... talsalhe@twu.edu 903/830-1935

Advisor: Lisa Silliman-French, PhD ..... LSillimanFrench@mail.twu.edu 940/898-2594

Explanation and Purpose of the Research

You are being asked to participate in a research study for Mr. Alsalhe Dissertation at Texas Woman's University. The purpose of this research is to compare the attitudes between undergraduate physical education students in Saudi Arabia and the United States toward teaching students with disabilities. You have been asked to participate in this study because you are undergraduate physical education students from either King Saud University in Saudi Arabia, University of North Texas, Stephen F. Austin State University, State University of New York at Cortland, University of Wisconsin-La Crosse, or the University of Utah in the United States

Description of Procedures

As a participant in this study you will be asked to spend 10 to 15 minutes of your time to complete the survey. The volunteer administrator will ask you to complete the survey which will be administrated the second day of your adapted physical education class in January 25, 2011. The volunteer administrator will ask you to sit at individual desks, and the administrator will provide you specific steps about how to take the survey. At the completion of the questionnaires, please place the survey inside the large, self-addressed envelope, and the last participant will seal the envelope and sign his/her name across the sealed portion In order to be a participant in this study, you must be between 18 to 40 years old and you have not completed any APE courses before the study. Any participants who decline to participate must to leave the class.

Potential Risks

A possible risk in this study is discomfort with this survey you are asked. You have the right to take breaks as any time If you feel tired or upset. Participation in this study is voluntary and you can discontinue participating at any time you want, and not participating will not impact your grade. If you feel you need to talk to a professional about your discomfort, the researcher has provided you with a list of resources. "Participation in this study will mean a loss of anonymity". To reduce the passable lose of the anonymity, the name of the participants will be coded, and all students will be given the survey even if they do not want to complete it. The volunteer administrators will leave the class, so the participants who will not participate can feel



comfortable to put the incomplete survey inside the envelope. This way also will reduce losing of the anonymity of the study for those who complete and do not complete the survey.

### Participation and Benefits

Your involvement in this study is completely voluntary and you may withdraw from the study at any time. There is no direct benefit for your participation. If you would like to know the results of this study we will mail or email them to you.\*

### Questions Regarding the Study

If you have any questions about the research study you should ask the researchers; their phone numbers are at the top of this form. If you have questions about your rights as a participant in this research or the way this study has been conducted, you may contact the Texas Woman's University Office of Research and Sponsored Programs at 940-898-3378 or via e-mail at [IRB@twu.edu](mailto:IRB@twu.edu).

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Date

\*If you would like to know the results of this study tell us where you want them to be sent:

Email: \_\_\_\_\_

or

Address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Appendix J

Data of the Reliability

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .832             | 53         |

### Item-Total Statistics

| Items  | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Reliability<br>Cronbach's Alpha if Item Deleted |
|--------|----------------------------|--------------------------------|----------------------------------|---|
| Ques1A | 180.2667                   | 409.651                        | .461                             | .827  |
| Ques1B | 180.5667                   | 395.082                        | .645                             | .821  |
| Ques1C | 180.5667                   | 401.909                        | .484                             | .825  |
| Ques1D | 180.5667                   | 402.806                        | .463                             | .825  |
| Ques2A | 180.3000                   | 406.286                        | .522                             | .825  |
| Ques2B | 180.7667                   | 401.151                        | .599                             | .823  |
| Ques2C | 180.9000                   | 398.852                        | .632                             | .822  |
| Ques2D | 181.3000                   | 397.114                        | .525                             | .823  |
| Ques3A | 180.4333                   | 401.702                        | .553                             | .824  |
| Ques3B | 180.5333                   | 405.775                        | .506                             | .825  |
| Ques3C | 180.5000                   | 406.052                        | .507                             | .825  |
| Ques3D | 180.5333                   | 404.051                        | .489                             | .825  |
| Ques4A | 181.4333                   | 398.599                        | .553                             | .823  |
| Ques4B | 181.6333                   | 401.826                        | .510                             | .824  |
| Ques4C | 181.6000                   | 402.317                        | .486                             | .825  |
| Ques4D | 181.6000                   | 407.972                        | .340                             | .828  |
| Ques5A | 180.1667                   | 411.040                        | .349                             | .828  |
| Ques5B | 180.1667                   | 404.282                        | .517                             | .825  |
| Ques5C | 180.2333                   | 410.323                        | .347                             | .828  |
| Ques5D | 180.3667                   | 397.620                        | .542                             | .823  |
| Ques6A | 180.2667                   | 410.892                        | .373                             | .828  |
| Ques6B | 180.5000                   | 402.328                        | .589                             | .824  |
| Ques6C | 180.4333                   | 404.737                        | .541                             | .825  |
| Ques6D | 180.5333                   | 399.223                        | .614                             | .823  |
| Ques7A | 179.9000                   | 408.783                        | .549                             | .826  |
| Ques7B | 180.1000                   | 401.679                        | .576                             | .824  |
| Ques7C | 180.0333                   | 404.585                        | .562                             | .825  |
| Ques7D | 180.2000                   | 403.476                        | .503                             | .825  |
| Ques8A | 180.5000                   | 406.672                        | .516                             | .826  |
| Ques8B | 179.6000                   | 414.248                        | -.087                            | .899  |
| Ques8C | 180.6333                   | 406.309                        | .521                             | .825  |
| Ques8D | 180.6667                   | 405.333                        | .545                             | .825  |
| Ques9A | 180.8000                   | 418.441                        | .169                             | .831  |
| Ques9B | 181.1000                   | 414.783                        | .300                             | .829  |
| Ques9C | 181.2333                   | 413.564                        | .346                             | .828  |

|            |          |         |       |      |
|------------|----------|---------|-------|------|
| Ques9D     | 181.0000 | 416.552 | .297  | .829 |
| Ques10A    | 180.6667 | 412.506 | .348  | .828 |
| Ques10B    | 180.7000 | 411.252 | .408  | .827 |
| Ques10C    | 180.7333 | 412.202 | .373  | .828 |
| Ques10D    | 180.8000 | 409.545 | .428  | .827 |
| Ques11A    | 181.9333 | 439.237 | -.347 | .841 |
| Ques11B    | 181.6000 | 437.214 | -.298 | .841 |
| Ques11C    | 181.6000 | 434.593 | -.243 | .839 |
| Ques11D    | 181.6333 | 432.102 | -.190 | .838 |
| Ques12A    | 181.7000 | 412.493 | .211  | .830 |
| Ques12B    | 182.0667 | 412.616 | .269  | .829 |
| Ques12C    | 182.0333 | 410.378 | .323  | .828 |
| Ques12D    | 181.9667 | 412.861 | .248  | .829 |
| Religion   | 181.1333 | 415.430 | .212  | .830 |
| Culture    | 181.4000 | 415.559 | .184  | .831 |
| EDsetings  | 181.5667 | 417.289 | .126  | .832 |
| Experience | 181.9667 | 407.964 | .287  | .829 |
| Gender     | 181.6333 | 432.102 | -.190 | .838 |

Appendix K  
Participants' Raw Data

| Partici<br>pants | Q1 A | Q1 B | Q1 C | Q1 D | Q2 A | Q2 B | Q2 C | Q2 D | Q3 A | Q3 B | Q3 C | Q3 D | Q4 A |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1                | 3    | 5    | 1    | 3    | 1    | 5    | 2    | 3    | 3    | 1    | 3    | 2    | 1    |
| 1                | 4    | 3    | 5    | 3    | 2    | 3    | 5    | 3    | 4    | 4    | 3    | 3    | 1    |
| 1                | 2    | 5    | 3    | 2    | 2    | 5    | 1    | 3    | 3    | 1    | 4    | 3    | 1    |
| 1                | 2    | 4    | 5    | 5    | 2    | 3    | 4    | 3    | 4    | 3    | 4    | 5    | 2    |
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| 1                | 2    | 3    | 1    | 4    | 2    | 3    | 1    | 4    | 1    | 2    | 1    | 4    | 1    |

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| 2 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 2 |
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| 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
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| 2 | 4 | 2 | 2 | 4 | 4 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 1 |
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| Q 4 B | Q 4 C | Q 4 D | Q 5 A | Q 5 B | Q 5 C | Q 5 D | Q 3 6 A | Q 6 B | Q 6 C | Q 6 D | Q 7 A | Q 7 B | Q 7 C |
|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|-------|-------|-------|-------|
| 4     | 2     | 3     | 2     | 4     | 1     | 3     | 3       | 5     | 2     | 4     | 5     | 5     | 4     |
| 3     | 1     | 2     | 3     | 5     | 2     | 4     | 4       | 3     | 4     | 4     | 5     | 5     | 5     |
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| Q 7 D | Q 8 A | Q 8 B | Q 8 C | Q 8 D | Q 9 A | Q 9 B | Q 9 C | Q 9 D | Q 10 A | Q 10 B | Q 10 C | Q 10 D |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
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| 5 | 4 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 5 | 5 | 5 | 5 |
| 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 5 | 2 | 2 | 2 | 2 | 2 | 5 | 1 | 4 | 5 | 4 | 1 | 5 |
| 3 | 4 | 4 | 2 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 4 |

| Q 11<br>A | Q 11<br>B | Q 11<br>C | Q 11<br>D | Q 12<br>A | Q 12<br>B | Q 12<br>C | Q 12<br>D | Religion | Culture | Educational<br>setting | Experience |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|---------|------------------------|------------|
| 4         | 2         | 5         | 2         | 2         | 4         | 1         | 3         | 5        | 3       | 3                      | 4          |
| 5         | 4         | 4         | 3         | 1         | 1         | 1         | 2         | 5        | 3       | 3                      | 5          |
| 5         | 5         | 5         | 5         | 2         | 2         | 3         | 1         | 2        | 2       | 2                      | 2          |
| 3         | 4         | 3         | 2         | 2         | 3         | 4         | 5         | 3        | 3       | 2                      | 4          |
| 5         | 3         | 5         | 5         | 1         | 1         | 1         | 1         | 3        | 3       | 3                      | 3          |
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| 4         | 4         | 4         | 3         | 1         | 1         | 1         | 1         | 3        | 3       | 2                      | 4          |
| 2         | 3         | 3         | 3         | 1         | 1         | 1         | 1         | 2        | 2       | 3                      | 1          |
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| 5         | 5         | 5         | 5         | 2         | 2         | 2         | 2         | 4        | 4       | 3                      | 3          |
| 4         | 3         | 4         | 2         | 1         | 1         | 1         | 1         | 5        | 5       | 2                      | 5          |
| 3         | 3         | 3         | 3         | 4         | 4         | 3         | 4         | 4        | 4       | 5                      | 5          |
| 5         | 4         | 5         | 5         | 5         | 5         | 5         | 5         | 2        | 1       | 4                      | 3          |
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| 5         | 5         | 5         | 5         | 1         | 1         | 1         | 1         | 5        | 5       | 1                      | 1          |
| 1         | 1         | 1         | 1         | 2         | 2         | 2         | 2         | 5        | 5       | 5                      | 5          |
| 3         | 3         | 3         | 3         | 2         | 2         | 2         | 2         | 4        | 4       | 4                      | 4          |
| 3         | 1         | 3         | 1         | 3         | 4         | 3         | 4         | 5        | 5       | 4                      | 5          |
| 4         | 4         | 5         | 1         | 1         | 5         | 2         | 4         | 4        | 5       | 2                      | 4          |
| 4         | 5         | 4         | 5         | 2         | 1         | 2         | 4         | 4        | 3       | 3                      | 5          |
| 4         | 4         | 5         | 5         | 1         | 1         | 2         | 1         | 5        | 4       | 4                      | 5          |
| 5         | 4         | 4         | 4         | 3         | 4         | 3         | 4         | 3        | 4       | 4                      | 4          |
| 4         | 2         | 2         | 3         | 2         | 1         | 1         | 2         | 5        | 5       | 3                      | 4          |
| 4         | 4         | 4         | 4         | 3         | 3         | 3         | 3         | 1        | 1       | 1                      | 1          |
| 2         | 2         | 2         | 2         | 1         | 1         | 1         | 1         | 5        | 5       | 1                      | 5          |

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