

# **The Influence of the Traditional APE Course on the Attitudes of Pre Service Physical Educators in Saudi Arabia towards Teaching Students with Physical Disabilities**

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### Abstract

This study aimed to determine the influence of the traditional Adapted Physical Education (APE) course on the attitudes of sixty three undergraduate physical education students toward teaching students with physical disabilities (N= 63). All participants were enrolled in traditional undergraduate APE course at the College of Sport Science and Physical Activity in King Saud University in Saudi Arabia. Data were collected through the administration of The Attitudes towards Individuals with Physical Disabilities in Physical Education-Revised (ATIPDPE-R) instrument, based on the theory of planned behavior (Ajzen, 2000). Pre-test and post-tests were administered in this study. Based on the results, pre-test and post-test scores indicated that there was no significant change of the participants' attitudes towards teaching students with physical disabilities after taking the APE course. However, results showed positive attitudes by analyzing the scores of pre-test and post-test separately for each statement. Specifically, participants showed more positive attitudes in the post-test in the statements of 6, 9 and 12, which were related to the effect of inclusion on the development of personalities of students with physical disabilities, level of knowledge for persons with disabilities, and the quality of teaching in the implementation of the inclusion in PE. Results of this study concluded that the traditional APE course cannot positively affect the attitudes of the future physical educators toward teaching students with specific disabilities.

**Keywords:** APE, ATIPDPE-R, theory of planned behavior, physical disability.

## تأثير مقرر التربية البدنية الخاصة التقليدي على اتجاهات طلاب البكالوريوس في التربية البدنية نحو تدريس طلاب ذوي الإعاقة الحركية

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### الملخص

تهدف هذه الدراسة إلى التعرف على مدى تأثير مقرر التربية البدنية الخاصة التقليدي على اتجاهات طلاب التربية البدنية في مرحلة البكالوريوس نحو تدريس طلاب ذوي الإعاقة الحركية وذلك على عينة قوامها (٦٣) طالباً من المنتظمين والمسجلين بمقرر التربية البدنية الخاصة في كلية علوم الرياضة والنشاط البدني بجامعة الملك سعود بالمملكة العربية السعودية. استخدم الباحث استبانة ATIPDPE-R لقياس الاتجاهات والتي تم تصميمها بناءً على نظرية السلوك المخطط. وعند تطبيق الاختبار القبلي والبعدي أشارت النتائج إلى عدم وجود تغيير ملحوظ في اتجاهات أفراد العينة نحو تدريس طلاب ذوي الإعاقة الحركية قبل وبعد الانتظام في مقرر التربية البدنية الخاصة التقليدي، غير أن مقارنة النتائج القبلي والبعدي لكل عبارة على حدة أظهرت وجود اتجاهات إيجابية لدى المشاركين في الاختبار البعدي تحديداً في العبارات ٦، ٩، ١٢. وقد خلصت الدراسة إلى أن مقرر التربية البدنية الخاصة التقليدي ليس له تأثير إيجابي على اتجاهات طلاب البكالوريوس في التربية البدنية تجاه تدريس طلاب ذوي الإعاقة الحركية.

الكلمات المفتاحية: التربية البدنية الخاصة، استبانة ATIPDPE-R، نظرية السلوك المخطط، الإعاقة الحركية.

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### Introduction:

Teacher's attitude is one of the most important factors that helps the success of including 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; 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 success of including children and youth with disabilities into general and physical education classes (Elliott, 2008; Hodge & Jansma, 2000; Rizzo & Vispoel, 1991). Researchers also have reported that the implementation of the inclusion concept in physical education classes can positively affect learning for both students with and without disabilities (Block & Zeman, 1996; Combs & Elliott, 2010; Schoffstall & Ackerman, 2007).

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), and

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Direct contact strategies were used in the studies by Chen and Jin (2006); Papadopoulou (2004).

After the Theory of Reasoned Action has been modified and developed into the Theory of Planned Behavior; it indicates that the experience can be a strong factor that affects the individuals' attitudes towards others (Fishbein & Ajzen, 1975). In addition, people feel afraid or uncomfortable when they work with unknown people or individuals who have not had experience working with them (Schoffstall & Ackerman, 2007).

Experience through universities, schools, and other academic institutions is very important for preparing physical educators to have positive attitudes toward teaching students with disabilities (Schoffstall & Ackerman, 2007). Students physical education majors who receive greater preparation programs and experiences working with students with disabilities such as the APE course tend to have more confidence and more favorable attitudes toward working with special education students (Rizzo & Vispoel, 1991; Schmidt-Gotz et al., 1994). Rizzo and Kirkendall (1995) explained that systematic interventions incorporate a multifaceted approach of information, various experiences, direct contact, and persuasion. These 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).

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; 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

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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 positive student attitudes is the development of an infusion-based curriculum model (Barrette, Holland Fiorentino, & Kowalski, 1993; Bartoðová, Kudláèek, & Bressan, 2007; DePauw & Goc Karp, 1994a; Lepore & Kowalski, 1992). The fundamental principle of infusion is that specialized courses in APE serve an important role in teacher preparation programs (Shaver et al., 1989). 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).

In Saudi Arabia, undergraduate physical education students across the country do not have any experience learning or working with students with disabilities except through traditional APE courses if their universities offer them. Therefore, this study investigates the influence of the traditional APE course on the attitudes of male undergraduates in the physical education toward teaching students with disabilities. This study focuses on just males because there is no APE course for female students in Saudi Arabia until this recent study. The results of this study will determine if the traditional APE course can affect the students' attitudes toward teaching students with disabilities or not.

**Traditional APE Course:**

The APE course that was reviewed in this study was the only course provided by the College of Physical Education and Sports at King Saud University in Saudi Arabia. This 2 credit hours course weekly offers one theoretical lecture through its textbook, which includes: introduction in APE, differences between APE and general PE, IEP, brief APE general assessment, and introduction in teaching intellectual disability, physical disability, visual impairments, and hearing impairments. The Professor in this course uses oral presentation, PowerPoint, weekly homework, and midterm and final exams. However, this course does not provide any kind of practiced experiences. Specifically, students in this course do not have the opportunity of being involved, participate, or even watch videos about teaching students with disabilities in the PE class along the semester.

**Purpose:**

The purpose of this study was to determine the influence of the traditional Adapted Physical Education (APE) course on the attitudes of Saudi Arabian pre service physical educators toward teaching students with physical disabilities.

**Methods:**

Participants involved in this study were sixty three undergraduate physical education male students from King Saud University in Saudi Arabia (N=63). Participants was all enrolled in two courses of APE introductory. The age of participants was between 20 to 35 years old (m=27 years). All participants surveyed in this study have not completed an APE or special education courses before this investigation.

**Instrument:**

The Attitudes toward Inclusion of Children with Physical Disabilities in Physical Education – Revised (ATIPDPE-R) survey (Martin Kudláček, 2007) was used in this study. The attitudinal scale of ATIPDPE-R was developed to find components by using principal component analysis and to compare these with components of original ATIPDPE (Kudláček,

Válková, & Sherrill, 2002). The statements of the ATIPDPE-R scale use to measure behavioral beliefs of PE educators toward teaching students with physical disabilities in physical education. The survey consists of 12 statements, such as “Including students with physical disabilities in my PE class will help students without disabilities to learn to interact with persons with physical disabilities, and “Students without physical disabilities will experience discrimination in my regular physical education classes”. According to Kudláček, (2007) “The scoring system required the use of two 7 point scales: (a) 1 to 7 for the likelihood construct, and b) –3 to +3 scale for the evaluation construct” (p.14). An example of ATIPDPE-R scores for each statement is provided in Table 1. The scores of all the 12 statements are listed in Table 2.

**Table 1**

Example item from ATIPDPE-R scale							
Including students with physical disabilities in my PE class will help students without disabilities to learn to interact with persons with physical disabilities:							
Extremely unlikely outcome _____:_____:_____:_____:_____:_____:							
Extremely good outcome    1    2    3    4    5    6    7							
Students without disabilities learning to interact with persons with physical disabilities is an: Extremely unlikely outcome							
_____:_____:_____:_____:_____:_____:_____:							
Extremely good outcome							
1    2    3    4    5    6    7							

There were six positive and six negative phrased statements. To gain proper scale means, scores for negative phrased items were reversed.

**Reliability and Validity of the ATIPDPE-R:**

Validity and reliability of the ATIPDPE-R was assessed in this study due to the instrument translated from English into Arabic. Before the survey was presented to the participants, the survey was completed twice within one week period by 50 undergraduate physical education students at the Education Department in King Saud University in the fall of 2012. Specifically, cronbach’s Alpha was calculated for each subscale based on the test administration of the 12 statements of ATIPDPE-R to the same 50 students from the Education Department at King Saud University. The



estimation of reliability was ascertained using the coefficient alpha and was reported at .80 for the total scale, which is considered “good” (Cohen, 1960).

For the validation, the researcher sent the survey to three experts 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 statements after translating them into Arabic had the same meaning of the original statements.

### **Procedures:**

The survey was completed twice before and after the semester for each participant. Specifically, in the beginning of the first adapted physical education class, the course professor described the study to all students, and asked each participant to write a sample in his survey to remember his survey in the end of the semester. The sample was such as, signature, nickname, last 5 numbers of the cell phone, etc. The course professors explained to the participants that they had the option to either complete or not complete the survey.

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

This study used one group pre-test and post-test which was designed to compare the participants’ attitudes toward teaching students with physical disabilities before and after taking the APE course. The pretest and post-test -intervention attitudinal scores by utilizing the attitudes toward inclusion of children with physical disabilities in physical education – were revised (ATIPDPE-R) surveyd (Martin Kudláček, 2007). Independent t test was used to examine pre-test and post test scores by analyzing the differences between and within scores. These scores were input into Statistical Package for Social Sciences (SPSS, 2011) to determine the descriptive statistics. The scoring system required the use of 7 point scales (1 to 7). Higher scores indicated a more positive attitude and lower scores indicated a more negative attitude.

**Table 2**  
**Compression between pre-test and post-test**

	Components/Item	Pre-test		Post-test		Sig
		M	SD	M	SD	
1.	Including students with physical disabilities in my PE class will help students without disabilities to learn to interact with persons with physical disabilities.	4.73	1.880	4.35	1.676	.472
2.	Including students with physical disabilities in my PE class will make teaching physical education more difficult.	3.64	1.829	3.58	1.833	.861
3.	Including students with physical disabilities in my PE class will encourage students to learn to help others.	3.35	2.048	3.60	1.594	.462
4.	Including students with physical disabilities in my PE class will make lesson planning and preparation much more difficult.	3.92	1.989	3.77	1.717	6.47
5.	Including students with physical disabilities in my PE class will teach students greater tolerance.	5.96	1.467	5.75	1.543	.480
6.	Inclusion will have a positive effect on the development of personalities of students with physical disabilities (e.g. self esteem, feeling of belonging, etc.).	5.18	1.415	5.87	1.499	.026
7.	Students with physical disabilities will experience discrimination in my regular physical education classes.	4.04	2.009	4.25	1.797	.460
8.	Students with physical disabilities will slow down instruction and progress in my PE class.	5.45	1.588	5.23	1.409	.396
9.	Inclusion will cause my students to have better knowledge about persons with disabilities.	3.11	1.685	3.85	1.704	.017
10.	Including students with physical disabilities in my PE will teach students cooperation.	5.76	1.866	5.18	1.847	.113
11.	Students without physical disabilities will experience discrimination in my regular physical education classes.	4.58	1.941	4.56	1.686	.948
12.	Including students with physical disabilities in my PE class will reduce the quality of teaching.	4.85	2.004	4.04	1.791	.003

**Results:**

The results of pre-test and post-test “within” each statement are provided in Table 2, while Table 3 provides the description of the means, standard deviations, and significant difference “between” the total statements scores of pre-test and post-test. Based on the results, there was no significant difference “between” pre-test and post-test ( $t = 1.303$ ,  $p = 1.98$ ). However, there was significant difference “within” the pre-test and post-test in the statements of 6 ( $t = 2.294$ ,  $p = .026$ ), 9 ( $t = 2.470$ ,  $p = .017$ ), and 12 ( $t = 3.066$ ,  $p = .003$ ).

**Discussion:**

The purpose of this study was to determine the influence of the traditional APE course on the attitudes of Saudi Arabian pre-service physical educators toward teaching students with disabilities. This study compared the participants’ attitudes toward teaching students with physical disabilities before and after taking the traditional APE course. The results “between” the scores of the pre-test and post test indicated that there was no change in the attitudes of the pre-service after they took the “traditional” APE course. This finding was supported by many researchers such as, Rizzo and Kirkendall (1995), Rizzo & Vispoel, (1991), Schmidt-Gotz et al., (1994) who reported that receiving high quality preparation programs and experiences in working with students with disabilities such as the APE course tend to have more positive attitudes towards working with students with disabilities. In addition, the “traditional” APE course in which the participants were enrolled, did not allow them to have experience with students with disabilities. Therefore, the findings by those researchers were focused on the effective APE course not the traditional APE course. Moreover, other researchers such as, Hodge & Ammah, (2005); Hodge, Davis, Woodard, & Sherrill, (2002); and Stewart, (1990) reported that educational institutions can change the attitude of PE teachers towards students with disabilities by providing them appropriate coursework, training, and experience, which the traditional courses cannot provide such opportunities to students.

The results of the pre-test and post test “within” each statement showed

that there was significant difference in the statements of 6, 9 and 12. By analyzing the meaning of these statements, it was clear that these statements are related to issues, such as, the effect of inclusion on the development of personalities of students with physical disabilities, how inclusion can make better knowledge about persons with disabilities, and the inclusion will not reduce the quality of teaching. In addition, the positive attitudes of the participants regarding these statements seem sensible due to the fact that all these statements are related to knowledge and general information about the benefit of the inclusion concept, which can be provided in any of the traditional courses.

However, there was no significant difference in the other 9 statements, which required experience working with students with disabilities to affect the pre-service educators' attitudes toward disabled students. Specifically, statements such as first statement, which stated "Including students with physical disabilities in my PE class will help students without disabilities to learn to interact with persons with physical disabilities" required experience working with students with physical disability to help the participants decide about their feeling after they had been involved with students with physical disability.

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