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ATTITUDES OF PRE-SERVICE TEACHERS IN AN AUSTRALIAN UNIVERSITY TOWARDS INCLUSION OF STUDENTS WITH PHYSICAL DISABILITIES IN GENERAL PHYSICAL EDUCATION PROGRAMS

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Attitudes of teachers are an important determinant of behaviour in educational settings (Avramidis & Norwich, 2002). The aim of this study was to describe the attitudes and determine predictors of intentions in pre-service teachers in Australia toward inclusion of students with physical disabilities in general physical education classes. The *Attitudes Towards Individuals with Physical Disabilities in Physical Education - Revised* (ATIPDPE-R) instrument, based upon the Theory of Planned Behaviour (Ajzen, 1991) was used to measure the attitudes of pre-service teachers from first and fourth year primary and physical education courses at a University in Australia. 230 participants, including 177 females, 53 males with an average age of 20.94 years took part in the study. Although no significant differences were found between year groups or subject majors, results found positive attitudes of pre-service teachers towards inclusion (Primary ATT (attitude) mean = 78.41; PE ATT mean = 75.27). Attitudes were found to account for 20% of variance of intentions ($r^2 = 0.208$), and when attitudes, subjective norm and gender were combined, these accounted for 26% of prediction of intention ($r^2 = 0.258$).

KEYWORDS: Adapted Physical Activity, physical disability, integration, inclusion, attitudes, Theory of Planned Behaviour.

INTRODUCTION

Australia has a population comprised of approximately 20% of people with disabilities, and this rate is on the increase (Australian Bureau of Statistics, 2008). The country has a national 'Disability Discrimination Act' stating that it is unlawful to discriminate against any person with a disability especially in relation to education. Australia also has a national legislation instigating equal opportunities to all people (Australian Human Rights Commission, 2008). Thus the notion of inclusion of people with disabilities is an extremely important issue to address.

Inclusion consists of educating all students, regardless of their ability or disability level, together in one educational environment, while meeting the needs of each of these individuals (Kudlacek, 2001). In such cases, "the general physical education teacher will make all necessary changes in didactics, pedagogy and curriculum to assure that all students will achieve their physical education goals and feel safe, happy, comfortable, and successful in the physical education setting" (Kudlacek, 2001, p.190). The aim of inclusion is to ensure that all students receive adequate instruction and physical activity without any student's skills or cognition being negatively affected (Block & Zeman, 1996; Vogler, Koranda & Romance, 2000). This will in turn remove all distinctions between special education and general education and as such will require a restructuring of educational systems in order to provide facilities, resources and support for all students, regardless of their ability level (Konza, 2008). It is important to note that while inclusion may provide benefits to many people with disabilities. This may not be relevant for people with more severe disabilities. Disability-specific opportunities will also be

beneficial to many people with disabilities (United Nations, 2006).

A review of research conducted in 2003 found that a number of countries had instilled large changes in legislation, aiming for inclusion of students with disabilities into general education classes (Hutzler, 2003). Although the notion of inclusion seems optimal in cases where persons with disabilities would benefit from such an environment (United Nations, 2006), many barriers have been noted such as inadequate teacher training and professional development, perceived lack of competence, lack of support, large class sizes, time and administrative demands, as well as low efficacy to teach individuals with disabilities when in an unfamiliar environment (Kodish, Kulinna, Martin, Pangrazi & Darst 2006; Konza, 2008). Attitudes of teachers are an important determinant of behaviour in educational settings and hence one of the most influential factors upon successful implementation of inclusion in general physical education (Avramidis et al., 2002). It is therefore advantageous to investigate and understand the attitudes of pre-service teachers prior to the commencement of their career as educators.

Attitude refers to whether a person is in favour of performing a certain behaviour or not, and is a function of psychological behavioural beliefs. According to Ajzen (2005) attitude toward certain behaviour is determined by accessible (salient) beliefs. Behavioral beliefs link the behavior of interest to expected outcomes. A behavioral belief is the subjective probability that the behavior will produce a given outcome. Ajzen (1991) also claims that although a person may hold many behavioral beliefs with respect to any behavior, only a relatively small number are readily accessible at a given moment. Behavioral beliefs consist of two components: (a) Behavioural beliefs: include perceived consequences of behaviour, and (b) Outcome evaluations: refer to the corresponding positive or negative judgements about the consequences (Francis, et al., 2004). Intention is an indication of a person's readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior (Ajzen, 2005). According to theory of planned behaviour intentions have strong relationship with actual behaviours and are usually influenced by attitudes, subjective norm and perceived behavioural control.

It has been suggested that attitude is a connotation of behaviour (Meegan & MacPhail, 2006), and as such, can be considered a persuasive influence on a range of behaviours (Ajzen, 2005). Much literature therefore lends support to the notion that it is possible to predict behaviours of individuals from their attitudes towards performing such behaviours (Ajzen, 2005). One of the most significant theories relating to this attitude-behaviour relationship is the Theory of Planned Behaviour (TPB) developed by Ajzen (1991), evolving from the Theory of Reasoned Action (TRA) (Fishbein, 1967). The TPB attempts to predict behaviour by assuming that the intention to perform a given behaviour is the best predictor of that behaviour (Francis et al., 2004; Meegan & MacPhail, 2006; Verderber, Rizzo & Sherrill, 2003). This theory proposes that attitude toward behaviours, as well as subjective norm and perceived behavioural control, all influence intention to perform certain behaviours (Kudlacek, Valkova, Sherrill, Myers & French 2002; Kodish et al., 2006), and as such are considered to be the underlying aggregates of behaviour (Hodge, Ammah, Casebolt, Lamaster, & Sullivan, 2004). Therefore when given sufficient control and opportunities to engage in certain behaviours, individuals are more likely to carry out certain actions (Hodge et al, 2004), and the stronger the intention, the more likely the behaviour or action will be executed (Ajzen, 1991). In relation to teaching students with disabilities in physical education, the TPB suggests that teaching is influenced by several psychological factors including; beliefs of teachers regarding the behavioural outcomes and evaluations of the students, the expectations placed upon them and their motivation to comply with such expectations, as well as the presence or absence of factors

and resources that may help or impede these students and the teaching. As such, when applying the TPB, it is believed that teachers will have more favourable intentions towards teaching students with disabilities when they possess more favourable accessible beliefs, attitude, subjective norm and perceived control about teaching these students (Tripp & Rizzo, 2006).

A substantial number of studies have been conducted (eg. Hodge et al., 2004; Kodish et al., 2006; Kudláček et al., 2002; Lienert, Sherrill & Myers, 2001; Tripp et al., 2006) regarding the attitudes of both non-disabled peers, teachers and pre-service teachers towards inclusion of students with disabilities in general physical education. Research has found that attitudes of students without disabilities towards students with disabilities varied depending on the type of disability (Verderber et al., 2003); attitudes towards peers with physical disabilities were more positive than those towards peers with learning or behaviour disabilities (Tripp, French & Sherrill, 1995). Higher levels of exposure and contact were also found to positively affect the attitudes of students without disabilities towards inclusion (Murata & Jansma, 1997). In relation to the attitudes of teachers, a review of the literature from 1995-2005 found that overall, general physical education teachers have negative feelings toward inclusion (Block & Obrusnikova, 2007). These feelings often pertained to a perception of inadequate training as well as lack of experience and knowledge of successful inclusion practices, and little support from the school (Hodge, et al., 2004, LaMaster, Gail, Kinchin & Siedentop, 1998; Lienert et al., 2001). Findings also noted that along with the type of disability, teachers' attitudes were also influenced by the severity of disability. Less favourable attitudes were seen towards students with severe disabilities compared to students with moderate disabilities (Block & Obrusnikova, 2007). Yuen & Westwood (2001) also found that negative attitudes were particularly present in relation to the teaching of students with behavioural problems, severe hearing or visual disabilities as well as intellectual disabilities. The small percentage of teachers who possessed favourable attitudes towards including students with more severe disabilities, were shown to have a higher quality of teaching experiences as well as adapted physical education coursework, and higher perceived competence (Block & Obrusnikova, 2007; Tripp & Rizzo, 2006).

In relation to attitudes of pre-service teachers towards inclusion, research has noted that these individuals form opinions, known as pre-judgements, towards teaching students with disabilities without actually experiencing this. It is believed that when a person is exposed to favourable and equal status contacts and experiences, their pre-judgements will likely change (Hodge, Murata & Kozub, 2002). It is therefore essential that future teachers be exposed to credible evidence to support inclusion of students with disabilities, in ways such as informed lectures or discussions or films showing students with disabilities successfully engaging in an inclusive physical education class as well as meaningful, positive and practical experiences. This will then contribute to more positive judgments about inclusive teaching. This should occur in the earlier stages of teacher development rather than later on (Hodge et al., 2002). Tripp and Rizzo (2006) also found that academic preparation relating to students with disabilities result in more favourable intentions about teaching these students. It can therefore be concluded that pre-service preparation and practical experiences that will prepare individuals to effectively teach a diverse population, including students with disabilities, is a necessity for future teachers.

A study conducted in 2000 (Avramidis, Bayliss & Burden, 2000), investigating the attitudes of student teachers towards inclusion of children with special educational needs in the United Kingdom revealed that the future teachers held positive general attitudes towards the inclusion philosophy, although favourable attitudes decreased according to the severity of the disability. It was also seen

that the teachers held less positive attitudes towards those children with emotional and behavioural disabilities in comparison to other types of disabilities. Teachers from this study also identified several factors that would affect the success of inclusion; class size, inadequate resources, the extent to which all students would benefit from inclusion and lack of adequate teacher preparation. Researches found that throughout inclusion programs, teachers became more confident and committed to the success of the program as they gained experience and expertise required to implement successful inclusion programs. Avramidis et al (2000) found that there were slightly more positive attitudes towards inclusion from female pre-service teachers compared to males. This research found no significant relationship between factors such as; age, phase taught, size of school, size of classroom, and teachers' attitudes towards inclusion. They did find that the severity of the disability had a significant impact upon the teachers' attitudes, and that students with more severe disabilities received a less favourable attitude towards inclusion by the teacher. The evidence from the research demonstrates that with systematic subject area coursework, it is possible to change both beliefs and attitudes of pre-service physical educators in a positive way (Tripp & Rizzo, 2006). As inclusive practices continue to be implemented throughout the world, it is therefore necessary that further research into the attitudes of pre-service teachers be conducted to understand current beliefs and attitudes and where necessary, make positive changes towards them (Hodge et al., 2002).

Within Australia, education for students with disabilities has developed from institutional care, to special schools, to mainstreaming, to inclusive education where possible. In most states and territories in Australia, physical education is mandatory for all students up until and including year ten, at approximately 16 years of age, after which it becomes optional. Physical education in secondary schools is taught by specialist physical education teachers. Syllabuses make it clear that education should be inclusive of all students, and as such students of all abilities should receive equal levels of physical education by specialist teachers (Board of Studies New South Wales, 2008a; Board of Studies New South Wales, 2008b). This is supported by the Disability Discrimination Act which makes any form of disability discrimination unlawful, and aims to promote recognition and acceptance of equal opportunities, and access to premises and facilities to all people with disabilities within Australia including education (Attorney General's Department, Canberra, 1995). The Disability Standards for Education 2005 (Australian Government; Department of Education, Employment and Workplace Relations, 2005) are a further extension of the Disability Discrimination Act, which focuses on access and participation of students with disabilities in all educational settings. Of the 320,000 children with a disability in Australia (Australian Bureau of Statistics, 2009), only 12-20% were recognised as having special needs and only around 2% as requiring individualised education programs (Australian Special Education Principal's Association, 2006).

After viewing these statistics, along with previously mentioned findings relating to the need for pre-service teachers to receive adequate information, training, positive experiences and contact in order to form positive attitudes towards teaching students with disabilities, it is necessary to conduct similar research within Australia. Therefore this study aims to investigate and describe the attitudes of pre-service teachers at a particular university in Australia as well as attempting to predict the intentions of these pre-service teachers in relation to inclusion of students with physical disabilities in general physical education classes. Attitudes and intentions will be compared between year levels of participants as well as by gender and subject major. Hence, by understanding the attitudes, subjective norms and perceived behavioural control of the participants in this study, feedback can be provided to teacher-training institutions, which have been identified as

strong influencers on the pre-service teachers. This will then ensure that they provide appropriate and successful training and practical experiences to pre-service teachers which may then contribute to the implementation of successful inclusive physical education classes throughout their career. The aim of this study was to describe the attitudes and determine predictors of intentions in pre-service teachers in Australia toward inclusion of students with physical disabilities in general physical education classes.

METHOD

Procedure

Ethical approval for this research was granted by the SESIAHS Humanities, Social Science and Behavioural Human Research Ethics Committee of the University in Australia. The collection of data was completed during the first semester of 2009.

Participants

Participants included 230 pre-service teachers (177 females and 53 males) with an average age of 20.94 years. 64 participants (36 females and 28 males) with an average age of 19.14 years were enrolled in the first year study of Bachelor of Physical Education. 32 participants (24 females and 8 males) with an average age of 23.08 years were enrolled in the fourth year study of Bachelor of Physical Education. 111 participants (96 females and 15 males) with an average age of 21.03 years were enrolled in the first year study of Bachelor of Primary Education. 24 participants (22 females and 2 males) with an average age of 22.57 years were enrolled in the fourth year study of Bachelor of Primary Education. Each of these courses was realised in one university in New South Wales, Australia. Note: the number of participants stated includes only the pre-service teachers who were present on the day of data collection and completed each question of the ATIPDPE-R instrument.

Table 1
Participants in the Study

	Males n (Mean Age - yrs)	Females n (Mean Age - yrs)	Combined total n (Mean Age - yrs)
1st Year Primary Education	15 (22.50)	96 (20.80)	111 (21.03)
4th Year Primary Education	2 (28.50)	21 (22.00)	23 (22.57)
1st Year Physical Education	28 (19.20)	36 (19.10)	64 (19.14)
4th Year Physical Education	8 (21.50)	24 (23.60)	32 (23.08)
Combined Total	53 (20.83)	177 (20.98)	230 (20.94)

n = number of participants

The sampling goal was to obtain as many participants as possible within the four mentioned tertiary courses. The purposive sampling was performed; therefore all pre-service teachers were surveyed who met the criteria of (a) enrolment in the pre-service programs mentioned above, (b) willingness of the course instructor to allocate class time for the survey, and (c) willingness of students to participate in the study.

Instrument

The Attitude Toward Teaching Individuals with Physical Disabilities in Physical Education - Revised (ATIPDPE-R) was used to measure the attitudes of pre-service teachers towards teaching students with physical disabilities in general physical education. The ATIPDPE was developed by Kudláček, Válková, Sherrill, Myers and French in 2002 in the Czech Republic. This instrument is based upon the Theory of Planned Behaviour (Ajzen, 1991) and was written in the English language. This questionnaire includes statements of intention and of behavioural, normative, and control beliefs, and for the purpose of this study, attitude was inferred from behavioural beliefs. This tool was designed to assess the attitudes of pre-service teachers in order to provide tertiary institutions with feedback regarding intentions of students towards inclusion and hence information that may contribute to the development of successful educational training programs.

Content validity of this instrument was established by experts in both the United States and the Czech Republic as well as through pilot studies in which the accessible beliefs and intentions of 96 university students were elicited. Construct validity evidence was obtained from data collected from three universities within the Czech Republic including data from 145 pre-service physical educators and 47 pre-service adapted physical educators. Bivariate correlations, hierarchical regression analysis, and ANOVA were used to examine the construct validity of the ATIPDPE-R. It was revealed that the test-retest scores showed no significance difference (Kudláček et al, 2002).

Questionnaire Construct

The introduction to the questionnaire provides information and definitions related to physical disabilities as well as detailed instructions towards completing the questionnaire. The questionnaire is composed of items relating to the level of understanding of the definitions (2), intention statements (4), behavioural beliefs (12), normative belief statements (2), control belief statements (2), and questions relating to demographic data (14). Accompanying each statement is a 7-point Likert scale, as recommended by Ajzen (1991). The scoring system requires the use of two 7-point scales: a) 1 to 7 for likelihood construct, and b) -3 to 3 scale for the evaluation construct. Once evaluation beliefs scores were collected, they were transformed from unidirectional (1, 2, 3, 4, 5, 6, 7) to bi-directional (-3, -2, -1, 0, 1, 2, 3). Item belief scores were then calculated by multiplying the scores for each statement, as seen in TABLE 2, hence results may range from -21 to +21. The results were then collated and subsequently referred to as the summative belief index or attitudinal score. This summative belief index represents the overall attitudes towards the target behaviour. The summary intention, as well as the subjective norm and perceived behavioural control index was also calculated from adding the scores for intention statements together.

Questionnaire collection and scoring

The ATIPDPE-R was distributed and collected by a lecturer at the University in Australia, to first and fourth year students in both Physical Education and Primary Education courses, during class time. Enclosed with the questionnaire was a participant information sheet (PIS) providing information on the study as well as contact details, should participants have questions or require further information. Respondents remained anonymous and were identified only by their year group, subject major and gender. Respondents were given the option to complete the questionnaire or not. They were in no way penalised if they did or did not complete the questionnaire.

Table 2
Sample Items from the Attitudinal Scale

Behavioural belief (outcome belief)

Likelihood

Inclusion will have a positive effect on the development of personalities of students with physical disabilities (e.g. self esteem, feeling of belonging, etc.)

Extremely Unlikely Outcome: ____:____:____:____:____:____:____: Extremely Likely Outcome

1 2 3 4 5 6 7

Evaluation

Positive effect on the development of personalities of students with physical disabilities is:

Extremely Bad Outcome: ____:____:____:____:____:____:____: Extremely Good Outcome

1 2 3 4 5 6 7

Data analysis

To compare the attitudes between the groups of pre-service teachers from Australia, in relation to year level and subject major, a one-way analysis of variance (ANOVA) was used. Software package SPSS PC 13.0 was used to determine if there were any significant differences between students in relation to their attitudes, subjective norm, perceived behavioural control and intention to include students with physical disabilities in general physical education classes. The level of significance was set at 0.05. Analysis was also carried out on the 12 individual belief statements, comparing responses between primary and physical education pre-service teachers. It is important to note that preliminary data analysis was performed comparing results between genders, although with insufficient numbers of males in the study, it was not plausible to include such data. It was therefore decided that attitudes between genders would not be compared during this study, but that the focus would be between year levels and subject majors.

RESULTS

Demographics

Results from the demographic data study (TABLE 3) found that there were substantially more female participants (177) than male participants (53) in the study. Of the two subject majors, there was a considerable difference among the number of students who had completed a course at University relating to adapted physical activity (APA). While only 9.6% of primary students had completed such a course, 38.1% of PE participants indicated that they had completed a related course (although it was evident that the students were undertaking the course at the time of questionnaire completion and were therefore only part of the way through and not completely finished the course). It was also reported that 65.4% of primary and 59.8% of PE students had not received any form of information related to physical education and sport for individuals with physical disabilities outside of their university studies.

Table 3
Demographic Data – Primary and Physical Education Subject Majors

Variable	Primary %	PE %
Female	87.30	62.50
Male	12.70	37.50
Personal experience with people with physical disabilities (PD)	69.90	71.10
Evaluation of experience with PD:		
Not good	1.50	1.00
Satisfactory	25.00	25.80
Very good	41.20	38.10
Outstanding	6.60	10.30
Completion of a university APA course	9.60	38.10
Provided with information on PD and PE outside of university	33.80	40.20
Perceived competence to teach participants with PD today:		
Not at all	42.60	12.40
Somewhat	51.50	77.30
Very	5.90	9.30
Perceived competence to teach participants with PD after graduation:		
Not at all	2.20	1.00
Somewhat	58.80	44.30
Very	38.20	53.60
Intention to teach PE after graduation	74.30	100.00

Legend: PD = Physical Disabilities; PE = Physical Education; APA = Adapted Physical Activity.
Note: Evaluation of experience with PD had low response rates as most participants did not complete this question if they had no experience with people with PD.

Participant's experience of people with disabilities

Approximately 70% of participants in both primary and physical education (PE) courses reported having some personal experience with people with physical disabilities (PD). Only 3 students from the combined participants found this experience to be *not good*, while 25% and 25.8% of students from primary and PE respectively found their experiences to be *satisfactory*, 41.2% and 38.1% informed of *very good* experiences and 6.6% and 10.3% respectively noted that their experience with persons with physical disabilities was *outstanding.*

Perceived Competence

When asked how competent the pre-service participants felt at the current time to teach physical education to students with physical disabilities, primary education students replied with 42.6% indicating *not at all,* 51.5% indicating *somewhat,* and only 5.9% indicating that they felt *very* prepared. Of the PE students, 12.4% felt *not at all* competent, 77.3% felt *somewhat* competent, and 9.3% felt *very* competent. Responses varied somewhat when asked about their perceived competence to teach students with PD after graduation. Of primary and PE courses respectively, 58.8% and 44.3% replied that they would feel *somewhat* competent, while 38.2% and 53.6% replied that they would feel *very* confident to teach students with physical disabilities in physical education after completing their teacher preparation course. 74.3% of respondents from the primary major and all of the respondents from the PE major indicated that they intend to teach after graduation. It is important to note that preliminary analysis was performed on participants who had partially completed and had not completed an adapted physical activity course in university, results were insignificant and hence this variable was not examined further.

Table 4
Overall Attitudes Towards Inclusion Among All Primary and All PE Students

	Primary Mean (SD)	PE Mean (SD)	F	p
Attitudes	78.41 (35.83)	75.27 (37.29)	0.42	0.52
Subjective Norm	12.56 (1.76)	12.46 (2.10)	0.14	0.71
Perceived Behavioural Control	10.01 (2.06)	9.86 (1.73)	0.35	0.55
Intention	26.24 (2.61)	26.28 (2.24)	0.12	0.91

p = < 0.05 statistical significance
SD = Standard Deviation

Table 5
Primary Education – Attitudes Towards Inclusion of First and Fourth Year Students

	1st year Mean (SD)	4th year Mean (SD)	F	p
Attitudes	77.77 (35.56)	82.79 (37.62)	0.39	0.54
Subjective Norm	12.68 (1.77)	12.00 (1.69)	2.92	0.09
Perceived Behavioural Control	10.15 (2.03)	9.42 (2.12)	2.55	0.11
Intention	26.35 (2.43)	26.00 (3.13)	0.37	0.54

p = < 0.05 statistical significance
SD = Standard Deviation

Attitudes

In relation to overall attitudes towards teaching students with physical disabilities in physical education, when comparing primary and PE pre-service teachers, no significant differences were found between the groups in relation to attitude, subjective norm, perceived behavioural control, or intention. Overall, on a scale with a maximum score of 14, subjective norm was found to be very high, as did intention, while perception of behavioural control was also found to be relatively lower. Results can be seen in TABLE 4.

When comparing attitudes of first and fourth year students within Primary education, again there are no significant differences between groups. Results are displayed in TABLE 5.

When comparing attitudes of first and fourth year PE students, including subjective norm, perceived behavioural control and intentions, again there are no significant differences in the results as can be seen in TABLE 6.

Comparison of groups and descriptive statistics for the behavioural belief component

As noted previously in TABLE 4, no significant differences between overall attitudes of primary and physical education students were found during this study. In order to investigate the foundation of participant attitudes in more detail, a one-way analysis of variance (ANOVA) was performed on the responses of each of the twelve behavioural belief items within the ATIPDPE-R instrument. The scores on behavioural beliefs can be found in TABLE 7. Intention toward behaviour can be inferred from the summative behavioural belief index. Scores relating to likelihood used a 1 to 7 scale, while scores related to evaluation of a positive or negative outcome used a -3 to 3 scale, as explained previously in the methods section.

When looking at the positive outcomes for students, results showed that both groups expressed that including students with physical disabilities in PE will help other students to interact with and increase knowledge about people with disabilities as well as encouraging students to learn to help others, cooperation, to foster the learning of greater tolerance, while developing the

personalities of students with physical disabilities. Results demonstrated that the likelihood of this occurring in the participants' classes is quite high, as is their evaluation of this as a positive outcome of inclusive education. Within the positive outcomes for students, significant differences were observed as primary pre-service teachers had significantly stronger beliefs ($F = 7.95$, $p = 0.01$) that including students with physical disabilities in their PE class will help students without disabilities learn to interact with persons with disabilities as well as encouraging students to learn to help others ($F = 11.1$, $p = 0.00$) than PE pre-service teachers hold.

When considering belief items relating to negative outcomes for students, it can be noted that while the likelihood of events such as students experiencing discrimination in PE classes, as well as students with PD slowing down PE class and reducing the quality of the PE class, data shows that the pre-service teachers did not seem to display either a high likelihood or a low likelihood of this happening. They did however express that these outcomes were not desirable, the most negative outcome being that both students with and without physical disabilities would experience discrimination in the participants' PE class. Significant differences were found between the two groups within the negative outcomes for teachers area, relating to lesson preparation and teaching becoming more difficult should students with physical disabilities be included in the general physical education class, considering both evaluation and belief index.

Table 6
Physical Education – Attitudes Towards Inclusion of First and Fourth Year Students

	1st year Mean (SD)	4th year Mean (SD)	F	p
Attitudes	76.19 (39.51)	71.97 (32.40)	0.27	0.60
Subjective Norm	12.67 (1.91)	12.03 (2.44)	1.98	0.16
Perceived Behavioural Control	10.16 (1.58)	9.25 (1.90)	6.14	0.15
Intention	26.13 (2.29)	26.53 (2.18)	0.69	0.41

$p = < 0.05$ statistical significance
SD = Standard Deviation

In order to predict the intention of participants to include students with physical disabilities into general physical education classes, a multiple regression analysis was performed. Results found that both perceived behavioural control (PBC) and attitudes (ATT) are statistical predictors of intention. Attitude was found to be the strongest predictor of intention with 20% predictability ($r^2 = 0.208$). When combining subjective norm and attitudes, prediction was increased to 24% ($r^2 = 0.242$). Gender also provided a slight effect on prediction, and when combined with attitude and subjective norm, prediction was further increased to 26% ($r = 0.258$). It may be important to note that the effect of gender on prediction may be misleading due to the very low number of male participants in this study.

Table 7
Behavioural belief scores including individual belief items

Beliefs about the outcome	Scale	Primary Students (n=134) M (SD)	PE Students (n=96) M (SD)	F	Sig.
Positive outcomes for students					
1) Including students with physical disabilities in my PE class will help students without disabilities to learn to interact with persons with physical disabilities	Likelihood	6.02 (1.02)	5.71 (1.1)	4.84	0.03
	Evaluation	2.61 (0.70)	2.38 (0.83)	5.14	0.02
	Like x Eval	15.99 (5.47)	13.87(5.96)	7.95	0.01
3) Including students with physical disabilities in my PE class will encourage students to learn to help others	Likelihood	6.06 (0.93)	5.72 (1.12)	6.33	0.01
	Evaluation	2.85 (0.48)	2.63 (0.74)	7.85	0.01
	Like x Eval	17.43 (4.17)	15.33(5.43)	11.11	0.00
5) Including students with physical disabilities in my PE class will teach students greater tolerance	Likelihood	5.73 (1.07)	5.70 (1.11)	0.04	0.85
	Evaluation	2.68 (.067)	2.52 (0.95)	2.51	0.11
	Like x Eval	15.60 (5.34	14.98(5.76)	0.72	0.40
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)	Likelihood	6.21 (0.97)	6.11 (1.04)	0.49	0.49
	Evaluation	2.77 (0.66)	2.59 (0.79)	3.79	0.05
	Like x Eval	17.40 (5.05)	16.23(5.80)	2.69	0.10
9) Inclusion will cause my students to have better knowledge about persons with disabilities	Likelihood	6.15 (0.89)	6.17 (0.83)	0.01	0.93
	Evaluation	2.70 (0.60)	2.58 (0.83)	1.68	0.20
	Like x Eval	16.93 (4.92)	16.24(5.86)	0.95	0.33
10) Including students with physical disabilities in my PE class will teach students cooperation	Likelihood	5.96 (0.97)	5.78 (1.08)	1.63	0.20
	Evaluation	2.75 (0.69)	2.72 (0.64)	0.10	0.75
	Like x Eval	16.55 (5.25)	15.85(4.96)	0.78	0.38

Table 7 continued

Negative outcomes for students					
7) Students with physical disabilities will experience discrimination in my regular physical education classes	Likelihood	3.20 (1.74)	3.51 (1.78)	1.72	0.19
	Evaluation	-2.29 (3.91)	-2.51(1.22)	0.28	0.60
	Like x Eval	-7.05(10.19)	-8.35(6.99)	1.20	0.28
8) Students with physical disabilities will slow down instruction and progress in my PE class	Likelihood	4.02 (1.44)	4.14 (1.34)	0.43	0.51
	Evaluation	-0.74 (1.17)	-0.73(1.23)	0.01	0.95
	Like x Eval	-2.89 (5.47)	-2.96(5.54)	0.01	0.93
11) Students without physical disabilities will experience discrimination in my regular physical education classes	Likelihood	2.50 (1.64)	2.60 (1.64)	0.20	0.65
	Evaluation	-2.44 (1.36)	-2.23(1.51)	1.28	0.26
	Like x Eval	-5.70 (5.30)	-4.36(6.30)	3.08	0.08
12) Including students with physical disabilities in my PE class will reduce the quality of teaching	Likelihood	2.75 (1.54)	2.73 (1.58)	0.00	0.99
	Evaluation	1.93 (1.26)	1.74 (1.23)	1.78	0.18
	Like x Eval	5.31 (4.95)	4.75 (4.60)	0.05	0.82
Negative outcomes for teachers					
2) Including students with physical disabilities in my PE class will make teaching physical education more difficult	Likelihood	4.93 (1.33)	4.81 (1.39)	0.44	0.51
	Evaluation	0.00 (0.00)	0.52 (1.28)	6.53	0.01
	Like x Eval	0.57 (7.34)	2.44 (6.49)	4.04	0.05
4) Including students with physical disabilities in my PE class will make lesson planning and preparation much more difficult	Likelihood	4.83 (1.43)	4.82 (1.44)	0.00	0.97
	Evaluation	-0.32 (1.29)	0.15 (1.37)	7.40	0.01
	Like x Eval	-1.49 (6.86)	1.00 (6.92)	7.37	0.01

Legend: M (SD) – mean (standard deviation); PD – physical disability; Sig = Significance
Note: The possible range of scores of every item from -21 (-3 on evaluation and 7 on likelihood) to +21 (+3 on evaluation and 7 on likelihood).

DISCUSSION

Attitudes and intentions

Previous reviews of the literature including Block and Obrusnikova (2007) found that overall, general physical education teachers had negative attitudes toward inclusion. Hutzler (2003) also found that attitudes of pre-service Physical Education teachers towards inclusion had not improved since the instillation of relevant legislation two decades earlier. In contrast, Hodge and

colleagues (2004) found that teachers expressed mostly favourable beliefs towards teaching students with disabilities. This current study found that participants held positive attitudes (primary mean = 78.41, PE mean = 75.27) towards including students with physical disabilities into general physical education classes. Overall, on a scale with a maximum score of 14, subjective norm was found to be very high (Primary = 12.59, PE = 12.46), as did intention (primary = 26.24, PE = 26.28), while perception of behavioural control was also found to be relatively lower (primary = 10.01, PE = 9.86; maximum score of 14). This suggests that while pre-service teachers demonstrate high intentions to include students with physical disabilities in their physical education programs and confidence in regards to conforming to the social expectations to perform such behaviours, their perceived behavioural control suggests that they do not feel that they have full control over factors that may affect the inclusion process.

Year level

One aim of this study was to compare the attitudes of participants by year level. No significant differences were found. Demographic results showed that fourth year physical education students had a higher rate of completion of a university course related to students with disabilities than first year students, they have also had increased practical experience in schools and overall teacher preparation. While one might assume that this would produce more positive attitudes, this is not the case. A suggested reason might be that first year students are more optimistic about the possibilities of teaching, while fourth year students are more realistic and have experienced the challenges of teaching. Perhaps this result can be related to findings by Avramidis et al. (2000), who found that younger teachers and teachers with fewer years experience held more positive attitudes towards inclusion than did their older, more experienced peers (Avramidis et al., 2000). These results may be affected by internal variances that have not been investigated during this study such as recent changes in degree structures affecting first year PE students, as well as first year PE students receiving a lecture relating to teaching students with disabilities prior to the completion of their questionnaires, and only some of the fourth year PE students having completed their practical experiences at a school with students with disabilities.

Academic preparation

Some literature emphasises the importance of academic preparation relating to people with disabilities and school programs, in the form of lectures, discussions, viewing successful inclusion programs, interaction and participation with students with disabilities in order to acquire understanding, meaningful, positive and practical experiences and hence develop more positive attitudes towards inclusion of students with physical disabilities in general educational settings (Hodge et al., 2002; Tripp & Rizzo, 2006). Due to insignificant results during preliminary analysis of data comparing students who had partially completed and had not completed a course related to students with disabilities at university, no significant differences were recorded. This variable was not examined further and hence cannot be compared to previous literature at this time.

Gender

While Avramidis and colleagues (2000) found that there were slightly more positive attitudes towards inclusion from female pre-service teachers compared to males, this finding was also supported by Meegan and MacPhail (2006) who found that female teachers in Ireland held more positive attitudes than did male educators in relation to teaching students with special educational needs. Unfortunately the sample size of males in the current study was insufficient for correct statistical use and therefore it was not possible to investigate the attitudes between male and female pre-service teachers.

Prediction of intensions

In relation to predicting intentions of participants to perform certain behaviours, in this case to include students with physical

disabilities in physical education programs, attitudes were found to be the strongest predictor with 20% predictability. Ajzen (2005) reports that much literature lends support to the notion that it is possible to predict behaviours of individuals from their attitudes towards performing such behaviours and that behaviour specific attitudes have been shown to correlate well with the corresponding behaviour. The current research provides evidence that attitude towards performing such a behaviour has a 20% correlation towards the intention to carry out this behaviour, and hence this provides minimal support to the notion mentioned above that by measuring attitudes, it is possible to somewhat predict the intention of an individual to perform a certain behaviour. This study found that when combining attitude with subjective norm and gender, this accounts for 26% of predictability of intention. When comparing this with other literature whose results explain from 17 to 69% of variance (Sheeran & Taylor, 1999), 49% (Norman, Connor & Bell, 1999), or 45% (Hagger, Chatzisarantis & Biddle, 2002), this explanation of predictability of intention by three components of the theory of planned behaviour in this study is low, perhaps suggesting that there are other components which have a stronger effect on the predictability of intention that have not been identified here. Results may also be affected by a number of variables when compared to the original participants who completed the ATIPDPE-R, being students in the Czech Republic. Possible reasons for such variances may include; different participant populations including number, age and gender ratios; different cultures between Czech Republic and Australia.

ATIPDPE-R instrument

Responses to the ATIPDPE-R instrument have been influenced by the following (a) internal variances within groups, by looking at four different base groups and then comparing between and within these, it was difficult to understand the effect of factors such as confidence, experience, and other such factors which may have an impact upon participant responses and attitudes, (b) demographic data found that the majority of participants had not completed a university course relating to teaching students with disabilities or had not received any information about this outside of university. It could then be suggested that the participants who had not been exposed to such information or experiences may not have had the chance to fully comprehend and come to appropriate beliefs, subjective norm and perceived behavioural control relating to teaching students with physical disabilities in physical education, (c) the hypothetical nature of the ATIPDPE-R instrument may not evoke accurate decision making while completing the survey. This may therefore result in inaccurate responses, or responses that may be socially expected rather than true personal beliefs and attitudes.

Perceived competence

According to the Review of Literature from 1995-2005 (Block et al, 2007), one of the greatest problems with inclusion seems to be the competence of the general physical education teacher to provide successful inclusive experiences that are beneficial for the students with disabilities. Research conducted by Block and Rizzo (1995) found that consistently, Physical Education teachers have reported limited competence in teaching students with disabilities in an inclusive environment. Findings of this current study somewhat support these previous findings as at the time of data collection, 42.6% of Primary students and 12.4% of Physical Education students expressed that they felt *not at all* competent to teach children with physical disabilities. Only a small number of participants (Primary: 5.9%, PE: 9.3%) indicated that they felt very competent to teach students with physical disabilities, thus supporting previous literature as mentioned.

When comparing responses of participants of the current study between how competent they felt at the time of data collection and their perceived competence to teach students with disabilities after graduation, results suggest the experiences that will occur between these time frames will

have a positive impact upon the participant's ability to teach students with physical disabilities in inclusive environments.

CONCLUSION

Inclusion is an increasingly observed phenomenon throughout the world today. It is therefore necessary to have competent and confident teachers to implement successful programs ensuring that all students receive equal and adequate opportunities for developing and learning within a safe and encouraging environment. While there were no significant differences in attitudes between first and fourth year students, or physical education and primary education students, results according to belief statement responses from this research showed that the pre-service teacher participants in this study have generally positive attitudes towards teaching students with physical disabilities in general physical education classes. Although these generally positive attitudes were apparent, there is still room for improvement. A suggestion to further improve the attitudes of these pre-service teachers towards teaching students with physical disabilities in general physical education classes may be to incorporate education relating to inclusion throughout more core subjects within the degree structure as well as increasing the positive practical experiences that the pre-service teachers are exposed to throughout their training. As has been previously noted, the university in this research has recently implemented such changes to the course curriculum and the successfulness of this may be confirmed with further research in the future. At the present time, with the findings presented in this paper, it is not possible to fully predict the intentions of pre-service teachers towards teaching students with physical disabilities in inclusive general physical education classes.

Results in this study show that pre-service teachers do in fact have positive attitudes towards inclusive physical education, therefore contradicting/disagreeing with the Review of Literature from 1995-2005 that found generally negative attitudes towards this practice (Block et al, 2007). While there is still room for improvement in these attitudes, ongoing research needs to be conducted to continue to revise university teacher preparation courses in order to provide valuable feedback to these institutions which may contribute to even more positive attitudes and hence more successful learning experiences for students with physical disabilities.

Recommendations for future research

Recommendations for future research may include a sample size of equal males and females, as well as year level and subject major groups, so as to ensure suitable data for statistical analysis. Using a different factor analysis on each sample group; Primary, Physical Education, First Year and Fourth Year may also provide useful information that would allow more meaningful comparisons. It may also be interesting to further explore the differences among pre-service teachers who have and have not completed a course relating to teaching students with disabilities as this may provide valuable feedback and further understanding about the effectiveness of such a course on the attitudes of the teachers in training. The university in this study has recently implemented inclusive education across the core pedagogy and movement subjects in the Bachelor of Physical and Health Education Degree. It may therefore be beneficial to conduct another similar study in four years, comparing attitudes of students between the two subject majors to evaluate the effectiveness of this new course structure. A pre and post study may also be useful in comparing the attitudes of students at the beginning and end of their university career. This research was only conducted in one university in Australia, in order to achieve a stronger overall understanding of attitudes of pre-service teachers towards inclusion within Australia it would be necessary to complete similar research across a number of teacher preparation institutions throughout a variety of geographical locations and students across the country.

REFERENCES

Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes, 50,* 179-211.

Ajzen, I. (2005). *Attitudes, Personality and Behaviour* (2nd ed.) Berkshire, England: Open University Press.

Attorney General's Department, Canberra. (1995). *Disability Discrimination Act 1992.* Retrieved March 24, 2009, from http://scaleplus.law.gov.au/html/pasteact/0/311/pdf/DDA1992.pdf.

Australian Bureau of Statistics. (2009). *4102.0 – Australian Social Trends, 2008.* Retrieved on March 25, 2009, from http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Chapter4002008.

Australian Bureau of Statistics. (2008). *4221.0 – Schools, Australia, 2008.* Retrieved on March 23, 2009, from http://www.abs.gov.au/ausstats/abs@.nsf/mf/4221.0?OpenDocument.

Australian Government; Department of Education, Employment and Workplace Relations. (2005). *Disability Standards of Education 2005.* Retrieved on October 31, 2009 from http://www.dest.gov.au/sectors/school_education/programmes_funding/forms_guidelines/disability_standards_for_education.htm

Australian Human Rights Commission. (2008). *About Disability Rights.* Retrieved on March 23, 2009 from http://www.hreoc.gov.au/disability_rights/about_disability.html.

Australian Special Education Principal's Association. (2006). *Disability into the Future and Impact on Schools.* Retrieved March 25, 2009, from http://www.asepa.org.au/PDF/Disability%20Into%20the%20Future.pdf.

Avramidis, E., Norwich, B. (2002). Teachers' attitudes towards integration / inclusion: a review of the literature. *European Journal of Special Needs Education, Volume 17,* Number 2, 1 June 2002, 129-147(19)

Avramidis, E., Bayliss, P., & Burden, R. (2000). Student teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school. *Teaching and Teacher Education, Volume 16* (3), April 2000, 277-293.

Block, M. E., & Obrusnikova, I. (2007). Inclusion of Physical Education: A Review of the Literature from 1995-2005. *Adapted Physical Activity Quarterly, 24,* 103-124.

Block, M. E., & Rizzo, T. L. (1995). Attitudes and attributes of GPE teachers associated with teaching individuals with severe and profound disabilities. *Journal of the Association for Persons with Severe Handicaps, 20,* 80-87.

Block, M. E., & Zeman, R. (1996). Including students with disabilities in regular physical education: Effects on nondisabled children. *Adapted Physical Activity Quarterly, 13,* 38-49.

Board of Studies New South Wales. (2008a). *PDHPE A Guide to the New Years 7-10 Syllabus.* Retrieved March 23, 2009, from http://www.boardofstudies.nsw.edu.au/syllabus_sc/pdf_doc/pdhpe_710_guide.pdf.

Board of Studies New South Wales. (2008b). *Personal Development, Health and Physical Education Years 7-10 Syllabus.* Retrieved March 23, 2009, from http://www.boardofstudies.nsw.edu.au/syllabus_sc/pdf_doc/pdhpe-7-10-syllabus.pdf.

Fishbein, M. (1967). A consideration of beliefs, and their role in attitude measurement. In M. Fishbein (Ed.), *Readings in attitude theory and measurement* (p. 257-266). New York: John Wiley & Sons.

Francis, J. J., Eccles, M. P., Johnston, M., Walker, A., Grimshaw, J., Foy, R., Kaner, E. F. S., Smith, L., & Bonetti, D. (2004). Constructing Questionnaires Based on the Theory of Planned Behaviour; A Manual for Health Services Researchers. 2004. Centre for Health Services Research, University of Newcastle upon Tyne, UK.

Hagger, M. S., Chatzisarantis, N, L, D., & Biddle, S. J. H. (2002). A meta-analytical review of the theories of reasoned action and planned behaviour in physical activity: Predictive validity and the contribution of additional variables. *Journal of Sport & Exercise Psychology, 24,* 3-32.

Hodge, S. R., Ammah, J. O. A., Casebolt, K., Lamaster, K., & Sullivan, M. (2004). High School General Physical Education Teachers' Behaviours and Beliefs Associated with Inclusion. *Sport, Education and Society, 9*(3), 395-419.

Hodge, S. R., Murata, N. M., & Kozub, F. M. (2002). Physical Educators' Judgements About Inclusion: A New Instrument for Pre-Service Teachers. *Adapted Physical Activity Quarterly, 19*, 435-452.

Hutzler, Y. (2003). Attitudes Toward the Participation of Individuals With Disabilities in Physical Activity: A Review. *Quest, 2003, 55*(347-373).

Kodish, S., Kulinna, P. H., Martin, J., Pangrazi, R., & Darst, P. (2006). Determinants of Physical Activity in an Inclusive Setting. *Adapted Physical Activity Quarterly, 23*, 390-409.

Konza, D. (2008). Inclusion of students with disabilities in new times: responding to the challenge. In Kell, P., Vialle, W., Konza, D., & Vogle, G (eds), *Learner and the learner: exploring learning for new times,* University of Wollongong, 2008, p.39-64. Available from http://ro.uow.edu.au/edupapers/36/.

Kudláček, M. (2001). *An attitude toward inclusion instrument based on the theory of planned behaviours for prospective Czech physical educators.* Unpublished doctoral dissertation, Texan Women's University, Denton.

Kudláček, M., Válková, H., Sherrill, C., Myers, B., & French, R. (2002). An Inclusion Instrument Based on Planned Behaviour Theory for Prospective Physical Educators. *Adapted Physical Activity Quarterly, 19*, 280-299.

LaMaster, K., Gail, K., Kinchin, G., & Siedentop, D. (1998). Inclusion practices of effective elementary specialists. *Adapted Physical Activity Quarterly, 15*(1), 64-81.

Lienert, C., Sherrill, C., & Myers, B. (2001). Physical Educators' Concerns About Integrating Children with Disabilities: A Cross-Cultural Comparison. *Adapted Physical Activity Quarterly, 18*(1), 1-17.

Meegan, S., & MacPhail, A. (2006). Irish physical educators' attitude toward teaching students with special educational needs. *European Physical Education Review, 12*(1), 75-97.

Murata, N. M., & Jansma, P. (1997). Influence of support personnel on students with and without disabilities in general physical education. *Clinical Kinesiology, 51*, 37-46.

Norman, P., Conner, M., & Bell, R. (1999). The theory of planned behaviour and smoking cessation. *Health Psychology, 18*(1), 89-94.

Sheeran, P. & Taylor, S. (1999). Predicting intention to use condoms: A meta-analysis and comparison of the theories of reasoned action and planned behaviour. *Journal of Applied Social Psychology, 29*, 1624-1675.

Tripp, A., & Rizzo, T. (2006). Disability Labels Affect Physical Educators. *Adapted Physical Activity Quarterly, 23*, 310-326.

Tripp, A., French, R., & Sherrill, C. (1995). Contact theory and attitudes of children in physical education programs toward peers with disabilities. *Adapted Physical Activity Quarterly, 12*, 323-332.

United Nations. (2006). *Convention on the Rights of Persons with Disabilities.* Retrieved on May 29, 2010 from http://www.un.org/disabilities/convention/conventionfull.shtml.

Verderber, J. M. S., Rizzo, T. L., & Sherrill, C. (2003). Assessing Student Intention to Participate in Inclusive Physical Education. *Adapted Physical Activity Quarterly, 20*, 26-45.

Vogler, E. W., Koranda, P., & Romance, T. (2000). Including a child with severe cerebral palsy in physical education: A case study. *Adapted Physical Activity Quarterly, 9*, 316-329

Yuen, M., & Westwood, P. (2001). Integrating students with special needs in Hong Kong secondary schools: Teachers' attitudes and their possible relationship to guidance training. *International Journal of Special Education, 16*(2), 69-83.

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EINSTELLUNGEN VON LEHRAMTSSTUDIERENDEN IN EINER AUSTRALISCHEN UNIVERSITÄT GEGENÜBER DER INKLUSION VON SCHÜLERN MIT KÖRPERLICHEN BEHINDERUNGEN IN DEN ALLGEMEINEN SPORTUNTERRICHT

(Resümee)

Einstellungen von Lehrern sind bedeutsame Verhaltensdeterminanten in Erziehungsettings und fortgesetzte Diskussionen weisen darauf hin, dass es möglich sei, das Verhalten über Verhaltensintentionen vorherzusagen. Die Absicht dieser Studie war es, Einstellungen und Prediktoren von Intentionen bei Lehramtsstudierenden in Australien bezüglich der Inklusion von Schüler/innen mit Körperbehinderungen im allgemeinen Sportunterricht zu beschreiben. Das Instrument ATIPDPE-R (*Attitudes towards Individuals with Physical Disabilities in Physical Education – Revised*), das auf der Theorie des geplanten Verhaltens basiert, wurde zur Messung der Einstellungen von Lehramtsstudierenden des ersten bis vierten Jahrgangs der Kurse für Grundschule (Primary) und Bewegungserziehung (physical education – PE) an einer Universität in Australien angewendet. Mithilfe des Statistikprogramms SPSS 13.0 wurden one-way ANOVAS und multiple Regressionsanalysen berechnet. Obwohl keine signifikanten Unterschiede zwischen Jahrgangsgruppen oder Studienhauptfächern gefunden werden konnten, konnten positive Einstellungen der Lehramtsstudierenden gegenüber Inklusion (Primary ATT (attitude) M = 78.41; PE ATT M = 75.27) sowie sehr hohe subjektive Werte und Intentionen festgestellt werden, während die wahrgenommene Verhaltenskontrolle geringer war. Einstellungen erklärten 20 % der Varianz der Intentionen ($r^2 = 0.208$), und wenn Einstellungen, subjektive Norm und Geschlecht kombiniert wurden, konnten diese 26 % der vorhergesagten Intentionen aufklären ($r^2 = 0.258$). Aus dieser Untersuchung kann geschlossen werden, dass es notwendig ist, Einstellungen und Intentionen von Lehramtsstudierenden gegenüber dem Unterrichten von Schülern mit Körperbehinderungen weiter zu erhöhen, noch vor Beginn ihrer Karriere als Lehrende. Um das zu erreichen, müssen in Universitätsausbildungen effektive Kurse und Praxiserfahrungen, die sich auf das Unterrichten von Schülern mit Behinderungen beziehen, angeboten werden.

SCHLÜSSELWÖRTER: Adapted Physical Activity, Körperbehinderung, Integration, Inklusion, Einstellungen, Theorie des Geplanten Verhaltens.

ATTITUDES DE FUTURS ENSEIGNANTS D'UNE UNIVERSITE AUSTRALIENNE ENVERS L'INCLUSION D'ETUDIANTS HANDICAPES MOTEURS AU SEIN DE PROGRAMMES D'EDUCATION PHYSIQUE ORDINAIRES

(Résumé)

L'attitude des enseignants est un facteur déterminant du comportement en milieu éducatif et le discours actuel suggère qu'il est possible de prédire le comportement des intentions. Le but de cette étude était de décrire les attitudes et déterminer des facteurs de prédiction des intentions de futurs enseignants Australiens envers l'inclusion d'étudiants handicapés moteurs au sein de programmes d'éducation physique ordinaires. Les *attitudes envers les individus handicapés moteurs en éducation physique-Révisé*. L'échelle ATIPDPE-R, basée sur "Theory of Planned Behaviour", a été utilisée afin d'évaluer les attitudes des futurs enseignants de première et quatrième année primaire, et des cours d'éducation physique à l'Université d'Australie. Une ANOVA à un facteur et une analyse par régression linéaire multiple ont été réalisées utilisant le logiciel SPSS 13.0 pour l'analyse statistique des résultats Bien qu'aucune différence significative n'ait été trouvée entre les groupes de différentes années, les résultats révèlent une attitude positive des futurs enseignants envers l'inclusion ((Primary ATT (attitude) moyenne = 78.41; PE ATT moyenne = 75.27) ainsi que

d'élevées norme subjective et d'intentions, tandis que le contrôle comportemental perçu était faible. Les attitudes ont compté pour 20% de la variance des intentions ($r^2 = 0.208$), et quand les attitudes, la norme subjective et les intentions été combinées, cela comptait pour 26% de la prédiction d'intentions ($r^2 = 0.258$). Cette étude permet de conclure qu'il est nécessaire de renforcer les attitudes et les intentions des futurs enseignants envers l'éducation d'enfants handicapés moteurs, antérieurement à leur carrière. Pour atteindre cet objectif, les cours à l'Université doivent fournir des cours efficaces et des expériences pratiques en relation avec l'enseignement des enfants handicapés moteurs.

MOTS CLEFS: Activités physiques adaptées, handicap moteur, intégration, inclusion, attitudes, théorie du comportement planifié.