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Relationship among Students' Attitudes, Intentions and Behaviors towards the Inclusion of Peers with Disabilities, in Mainstream Physical Education Classes

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Abstract

Students' attitudes, intentions and behaviours towards their peers with disabilities are important to their mutual co-existence and development. The aim of this study was to investigate a) whether students' attitudes and intentions towards their schoolmates with disabilities are related to their general and modified behavior in mainstream physical education classes, and b) if the former variables could serve as predictors of the latter. The participants, 172 children without disabilities (M_{age}=11.15, *SD*=.70), completed the revised version of the Planned Behavior Theory questionnaire (PBT) and the Children's' Attitudes towards Inclusion in Physical Education – Revised questionnaire (CAIPE-R). Although results revealed several correlations among the variables under study, only general attitudes accounted for both general and modified behavior, and attitudes for modified behavior. These findings could assist in educating students to develop and perform appropriate behaviours towards their peers in order to facilitate their co-existence, and their mutual development and learning.

Keywords: Attitudes, General Behavior, Modified Behavior, Elementary School.

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Introduction

Over the past years inclusion has become increasingly the focus of many national and international policies of education (Armstrong, 1998). Inclusion has been identified as placing students with disabilities in mainstream classes, including physical education, and educating them with their non-disabled peers (Block, 2000, 2007; Murata, Hodge, & Little, 2000). In this frame, school societies try to support full participation of students with disabilities in all areas of their lives on equal terms and conditions (Campbell & Gilmore, 2003). In line to this policy, the Greek government voted the Public Law 2817/2000. Based on this law, a child with disabilities can study in an ordinary school class with parallel support by the special education teacher or in specifically organized and appropriately staffed classes of inclusion, which function in the schools of mainstream and technical professional education.

According to Buswell and Schaffner (1990), primary schools are the best way to fight discrimination since they provide students with the appropriate space and experiences to achieve the learning objectives but also to enhance their social skills. Specifically, the embodiment offers many benefits to both children with and without disabilities, some of which reflect on their social development and specifically on their ability to ask, discuss, and interact with each other (Chesley & Calaluce, 1997; Lipsky & Gartner, 1997). Likewise, literature indicates that all students with disabilities should experience positive interactions with their peers in the physical education class as part of their growth and development (BAALPE, 1996).

The endeavor towards understanding whether positive interactions and social behaviors are related to attitudes and intentions of people, in general, who have daily contact with children with disabilities resulted in the development of many models, i.e. the model of planned behavior (Ajzen & Madden, 1986). According to Planned Behavior Theory (Ajzen, 1987; 1988), the performance of a behavior is related but not limited to the person's intention. Although a behavior can be totally under a person's control, in most cases various obstacles are present which impinge on the person's decision to perform it. Such obstacles can be internal factors such as agility, knowledge, and planning, or external factors such as time, opportunity, and cooperation with others (Ajzen & Madden, 1986).

In particular, the probability of performing a specific behavior is referred to as "behavioral intention". Intention is determined by a combination of two factors: (i) attitude towards the behavior (that is, a positive or negative predisposition towards a specific behavior); and (ii) subjective norms (Ajzen & Fishbein, 1972). These subjective norms are of two kinds: (i) behavioral beliefs (which affect attitude towards the behavior); and (ii) normative beliefs (which reflect social factors). Each behavioral belief reflects whether important others would approve or disapprove a specific behavior (Tesser & Shaffer, 1990). According to Ajzen and Fishbein (1980), the stronger the intention of a subject the greater the likelihood is that the subject will behave according to his or her intention.

Also, information has often been mentioned as an important factor in understanding how behavior is consistent with attitude (Ajzen & Madden, 1986; Krosnick, Boninger, Chuang, Berent, & Carnot, 1993; Theodorakis, 1994). Limited information and knowledge about the behavior in question can represent a serious obstacle in carrying it out (Theodorakis, 1994) and, consequently, in assessing it with accuracy. Despite that, information is a construct that has not received much attention in recent research based on Planned Behavior Theory. It is frequently reported as an important factor in the literature on attitude, but few studies provide a clear definition of it—although Krosnick and his colleagues did define information (or, rather, *interest in* relevant information, to use their terminology) as being 'the extent to

which an individual is motivated to gather information about an attitude object' (Krosnick, et al., 1993, p. 1133).

Another factor that influences a person's attitude towards a specific behavior is the perceived subjective control of this behavior that a person has. Literature identifies as "perceived behavioral control" how easy or difficult it is for an individual to adopt a certain behavior (Conner & Norman, 1995). Perceived behavioral control is influenced by internal and external factors. The internal factors include variables such as skills, abilities and individual differences. External factors include time, opportunity and dependence on others.

Although research has been conducted in the area of including students with disabilities in primary schools, research directly associated with physical education is fairly new (O'Brien, Kudláček, & Howe, 2009). However, there is evidence that the inclusion in physical education can work effectively for children with disabilities (Goodwin & Watkinson, 2000), and this can be achieved without negative peer experience on behalf of children without disabilities (Faison-Hodge & Porretta, 2004; Obrusníková, Válková, & Block, 2003). This is really important since Hutzler and Levi (2008) suggested that most students would not consider as an outcome a behavior in which they are expected to lower their own performance in favor of the student with disabilities. Besides, the claim to concede individual performance in favor of a student with disability has never been considered as an inclusion objective; on the contrary, most researchers insist that inclusion can be conducted without negative effects to the non-disabled students (Block, 2007; Sherrill, 2004).

Block and Malloy (1998) investigated the attitudes of students without disabilities on the inclusion of peers with mental disabilities, in a softball team, and their opinion as to the adjustments of the exercise that needs to be done to enable disabled students to follow up. The findings were encouraging and showed that students without disabilities had positive attitudes towards the participation of children with disabilities in their group(s) with appropriate exercise adjustments. Also, research evidence (Hutzler, 2003) dealt with depicting barriers associated with professional, personal, and peer attitudes toward the participation of children with disabilities in physical education classes, showed that female students (Block, 1995; Loovis & Loovis, 1997; Woodward, 1995; Tripp, French & Sherrill, 1995; Slininger et al., 2000) and individuals with a family member or a close friend with a disability (Block, 1995), had more positive attitudes.

At the same time, in Greece limited research used the model of Planned Behavior in order to identify the attitudes and intentions of students and physical education teachers towards their collaboration with students with disabilities in class (Batsiou, et al., 2006) and recreation environments (Magouritsa, Kokaridas, & Theodorakis, 2005). As Theodorakis et al. (1995) mentioned the main determinant of a behavior is the intention of the individual to accept to yield this behavior, which is for example to accept the presence of students with disabilities in the regular physical education class. In another study by Magouritsa et al. (2005), the examination of Planned Behavior Theory in the context of inclusion in physical activity and/or physical education showed that children's intentions of including peers with disabilities are an outcome of their attitudes, normative beliefs, and perceptions of control or competence, during and after an activity. Results also indicated that the application of an intervention program improved students' attitudes, verifying Sable's (1995) point of view that a person may learn attitudes through social and environmental experiences.

A more recent study which was based on the same theory (Kalyvas, Koutsouki, & Skordilis, 2011) pointed out that University students exhibited positive attitudes and intentions towards integrating disabled individuals in school while female students scored higher than their male peers. On the subject of teachers' opinion and intention (Batsiou et al., 2006),

results revealed that past experience, specific subject education (physical education for disabled students), knowledge and information are the main elements for more positive attitudes.

Although attitudes and intention may affect people's behavior, research identified the need for developing and using specific instruments to measure behavioral outcomes. One of the most frequently used instruments to measure peers' behavior towards inclusion in physical education is the "Children's' Attitudes towards Inclusion in Physical Education – Revised" questionnaire (CAIPE-R: Block, 1995; Block & Malloy, 1998; Sherill, 1998). This instrument was developed to measure how children without disabilities feel about having children with disabilities in their physical education class (Block, 1995). More specifically, the particular tool investigates two factors; general and modified behaviour, through children's beliefs.

Additionally, Panagiotou, Evaggelinou, Doulkeridou, Koidou, and Mouratidou (2009) pointed out that students' general behavior might change and become more positive towards integration of children with disabilities, unlike their modified behavior, where the element of winning in sports, makes them be selective towards the teammates that they want to have (in order to win). Nevertheless, education and especially school curriculum subject matters like physical education play a major and very important role in changing students' behaviors toward disability in general and disability in sports in particular, contributing this way to the successful inclusion of students with disabilities into primary schools and social communities (Evaggelinou, 2006; Sherrill, 1998).

Although the aforementioned studies provide valuable information on the subject of inclusion of disabled students in the mainstream school, they examined either students' attitudes or behaviors. Also, although students' attitudes are considered to lead towards the performance of a behavior, there is no research evidence, to our knowledge, which proves a direct relation between attitudes and behaviors. The identification of such a relation is considered significant because attitudes could serve as a diagnostic tool for the performance of students' behaviors towards their disabled peers in mainstream classes. Such a diagnosis could assist professionals and physical education teachers in designing and implementing the curriculum, according to all students' behavioral needs, within the dynamic, social environment of physical education.

Therefore, this study was conducted in an attempt to investigate (a) whether there are any relations between the variables of PBT (attitudes, intention, perceived behavioral control, moral satisfaction, information, and general attitudes), and CAIPE-R (general behavior, and modified behavior), and (b) the extent to which the former variables account for the latter. The study addressed the following questions:

- Is there any relation between the variables of PBT (attitudes, intention, perceived behavioral control, moral satisfaction, information, and general attitudes) and CAIPE-R (general behavior and modified behavior)?
- Which one(s) of the aforementioned variables of PBT account for the variables of CAIPE-R?

Method

Participants

The sample consisted of 172 primary grade school children; 78 boys and 94 girls, between 10 to 12 years of age (*M*=11.15, *SD*=.70) (Table 1).

Table 1. Partic*ipants' Descriptive Characteristics*

Sex		Age		Grade	
Boys	78 (45.3%)	10	31 (18%)	5th	87 (50.6%)
Girls	94 (54.7%)	11	85 (49.4%)	6th	85 (49.4%)
		12	56 (32.6%)		

Instruments

Students completed the revised version of the Planned Behavior Theory (Magouritsa et al., 2005), and the Greek version of the Children's' Attitudes towards Inclusion in Physical Education – Revised questionnaire (CAIPE-R) (Panagiotou, 2006). Before completing the second questionnaire, students were introduced to a hypothetical scenario: *"Before we begin I would like to talk to you about a child whose name is John. John has the same age as you. But has moderate mental retardation and therefore he cannot be taught things and learn them as fast as you can. Because he has moderate mental retardation, he cannot speak very clearly and that is why it is sometimes difficult to understand what he says. John likes to play the same games you play when you exercise, but he is not very good at these games. Although he can run, he is slower than you and gets tired easily. He likes football but he cannot kick the ball very well. He also likes basketball but he is not very good at shooting and dribbling the ball and he cannot understand the rules of the game very well"*.

1. The Planned Behavior Theory questionnaire consists of questions of the following seven factors:

a) A*ttitudes* were estimated by the mean score of responses to the question "For me to accept a student with disabilities in my class, is…". Responses were rated on a 7-point Likert type scale, on six bipolar adjectives (7=good to 1=bad, 1=unethical to 7=ethical, 7=smart to 1=foolish, 7=useful to 1=unuseful, 7=nice to 1=ugly, 7=pleasant to 1=unpleasant).

b) *Intention* was estimated by the mean score of the responses to three different questions: "I intend/I will try/I am determined to accept a student with disabilities in my class" were rated on a 7-point scale from 1=very unlikely to 7=very likely. A 7-point Likert type scale with endpoints labelled 1=definitely no to 7=definitely yes, was used for the other two questions.

c) *Perceived Behavioral Control* for the specific behavior was estimated by the mean score of four questions. Examples of questions are: "For me to accept a student with disabilities in my class is", "If I wanted I could accept a student with special needs in my class", "Is totally up to me, if I will accept or not a student with disabilities in my class", and "How much is under your control, to accept or not a student with special needs in your class?". A 7-point Likert type scale was used, ranging from 1=difficult to 7=easy for the first question, from 1=incorrect to 7=correct for the second, from 1=disagree to 7=agree for the third and 1=not at all to 7=complete control for the forth.

d) *Moral satisfaction* was estimated by the mean score of three questions: "I wouldn't feel guilty if I didn't accept a student with special needs in my class", "To not accept in class a student with special needs, is against my principles", and "It would be unethical to me, if I wouldn't accept a student with special needs in my class". A 7-point Likert type scale was used, ranging from 1=incorrect to 7=correct for the first question, from 1=impossible to 7=possible for the second, and from 1=disagree to 7=agree for the third question.

e) *Subjective Norms* were estimated by the mean score of responses to four questions: "Some individuals, who are important in my life, believe that I must accept a student with disabilities in my class", "Some very important people to me, would accept a student with disabilities in the class", "Some people to whom I value their opinion, would agree the idea of having a student with disabilities in my class", and "Some very important people would approve the idea of having a student with special needs in my class". A 7-point Likert type scale was used, ranging from 1=I must not to 7=I must for the first question, from 1=incorrect to 7=correct for the second and forth, and from 1=disapprove to 7=approve for the third question.

f) *Information* was measured by four questions: "Some individuals told me that they pay attention to different information about inclusion of students with disabilities to regular classrooms. How much attention do you pay to different information about inclusion of students with disabilities to regular classrooms?"; "How often do you pay attention to different information about inclusion of students with disabilities to regular classrooms?"; "I am very interested in any information regarding the inclusion of students with disabilities to regular classrooms"; "How often do you pay attention to information regarding inclusion of students with disabilities to regular classrooms?". Responses were given on 7-point Likert type scales, ranging from 1=I never pay attention to 7=I very much pay attention for the first, from 1=never to 7=very often for the second, from 1=I strongly disagree to 7=I strongly agree for the third, and from 1=I never pay attention to 7=I pay a lot of attention for the fourth question.

g) Additionally, a factor named *General Attitudes* was added to the questionnaire (Nikolaraizi & Reybekiel, 2001) which was translated into Greek by Magouritsa, Kokaridas and Theodorakis (2005). It was measured by nine questions in an effort to explore not only the attitude of the students' planned behavior in school activity, but the overall students' attitude without disabilities and their willingness to approach, build a relationship, and accept students with disabilities in their classroom. Before the questions, the students were presented with a scenario: *"Lets hypothesize that a student with disabilities comes in your class for this school year"*, and then they were asked: "Will you have him/her become your best friend?". Responses were given in a 5-point Likert type scale, ranging from 1=definitely not to 5=definitely yes.

2. The (CAIPE-R) questionnaire consists of eleven questions that concern General and Modified Behavior. Specifically, *General Behavior* is measured with six questions (e.g., "It would be OK having *John* come to my Physical Education class"), whereas the remaining five questions concern *Modified Behavior* (e.g., "If you were playing basketball would you be willing to make a pass to *John*?"). A 4-point Likert type scale, from 1=no to 4=yes, was used.

At the end of both questionnaires the students were asked to indicate their sex, age and grade. Responses were given in a numerical format. Their participation was voluntary.

Data analyses

Person Correlation analyses were conducted to identify any possible correlation between the seven variables of the PBT and the two variables of CAIPE-R. Also, Hierarchical Regression

Analyses were used to identify whether PBT's variables account for General Behavior and Modified Behavior of CAIPE-R.

Results

Descriptive statistics

Descriptive statistics were computed for all assessed variables and are presented in Table 2. The results indicated that all scales showed acceptable internal consistency since Cronbach's alpha was higher than .70.

Table 2. *Internal reliability and Descriptive statistics of all variables.*

Variable	*M*	*SD*	Cronbach's alpha
Attitudes	5.6	.96	.80
Intention	5.9	1.2	.74
Perceived Behavioral Control	5.3	1	.87
Moral Satisfaction	4.2	1.8	.71
Subjective Norms	6	1	.76
Information	4.6	1.2	.86
General Attitudes	3.9	1.1	.78
General Behavior	3.8	1.3	.71
Modified Behavior	4.1	1.5	.77

Pearson Correlations

Table 3 shows the Pearson correlations between the variables of PBT questionnaire and the variables of CAIPE-R questionnaire. Specifically, General Behavior was significantly correlated with General Attitudes and Moral Satisfaction whereas Modified Behavior was significantly correlated with General Attitudes, Attitudes, Intention, Perceived Behavioral Control, Subjective Norms, and Information.

Table 3. *Pearson Correlation Matrix among questionnaire for Planned Behavior Model and CAIPE-R.*

Variables	General Behavior	Modified Behavior
1. General Attitudes	.47*	.24*
2. Attitudes	n.s.	.27*
3. Intention	n.s.	.22*

Table 3 (Continue). *Pearson Correlation Matrix among questionnaire for Planned Behavior Model and CAIPE-R.*

Variables	General Behavior	Modified Behavior
4. Perceived Behavioral Control	n.s.	.27*
5. Moral Satisfaction	.27*	n.s.
6. Subjective Norms	n.s.	.24*
7. Information	n.s.	.20*

*$p<.001$

Hierarchical Regression Analyses

1. Results from hierarchical regression analysis that concern General Behavior are presented in Table 4. In the analysis, General Attitudes was entered at Step 1; Attitudes was entered at Step 2; Intention was entered at step 3; Perceived Behavioral Control were entered at Step 4; Moral Satisfaction was entered at Step 5; Subjective Norms was entered at Step 6; and Information was entered at Step 7. Only the variable General Attitudes, in Step 1, significantly accounted for the 22% of the total variance of General Behavior, R^2 Change=.22, $F(1,17)=46.35$, $p<.001$. Overall, the variables accounted for the 24% of the total variance of General Behavior.

Table 4. *Hierarchical Regression Analysis for General Behavior.*

	Variables Entered	B	β	R^2 Change	*SE* B
Step	Prediction of "General Behavior"				
1	General Attitudes	0.32	.48*	.22	.05
2	General Attitudes	0.33	.48		.05
	Attitudes	0.02	.03	n.s.	.03
3	General Attitudes	0.32	.47		.05
	Attitudes	0.01	.08		.04
	Intention	0.03	.10	n.s.	.03
4	General Attitudes	0.32	.47		.05
	Attitudes	0.04	.08		.04
	Intention	0.04	.10		.03
	Perceived Behavioral Control	0.01	.01	n.s.	.03

Table 4 (Continue). *Hierarchical Regression Analysis for General Behavior.*

	Variables Entered	B	β	R^2 Change	*SE* B
Step	Prediction of "General Behavior"				
5	General Attitudes	0.29	.42		.05
	Attitudes	0.03	.07		.04
	Intention	0.03	.10		.03
	Perceived Behavioral Control	0.001	.001		.03
	Moral Satisfaction	0.03	.13	n.s.	.02
6	General Attitudes	0.29	.42		.05
	Attitudes	0.04	.08		.04
	Intention	0.03	.08		.03
	Perceived Behavioral Control	0.004	.001		.03
	Moral Satisfaction	0.03	.13		.02
	Subjective Norms	0.02	.05	n.s.	.04
7	General Attitudes	0.29	.41		.05
	Attitudes	0.04	.08		.04
	Intention	0.03	.08		.03
	Perceived Behavioral Control	0.007	.02		.03
	Moral Satisfaction	0.03	.14		.02
	Subjective Norms	0.02	.05		.04
	Information	0.01	.03	n.s.	.03

$^{*}p<.001$

2. Results from hierarchical regression analysis that concern Modified Behavior are presented in Table 5. In the analysis, General Attitudes was entered at Step 1; Attitudes was entered at Step 2; Intention was entered at step 3; Perceived Behavioral Control was entered at Step 4; Moral Satisfaction was entered at Step 5; Subjective Norms was entered at Step 6; and Information was entered at Step 7. In Step 1, General Attitudes significantly accounted for the 6% of the variance of Modified Behavior, R^2 Change=.06, $F(1,17)=10.57$, $p<.001$, and in Step 2 Attitudes increased significantly its variance to 12%, R^2 Change=.06, $F(2,17)=10.72$, $p<.001$. Overall, the variables accounted for the 15% of the total variance of Modified Behavior.

Table 5. Hierarchic*al Regression Analysis for Modified Behavior.*

	Variables Entered	B	β	R^2 Change	*SE* B
Step	Prediction of "Modified Behavior"				
1	General Attitudes	0.20	.24*	.06	.06
2	General Attitudes	0.17	.21		.06
	Attitudes	0.13	.24*	.06	.04
3	General Attitudes	0.17	.20		.6
	Attitudes	0.11	.20		.5
	Intention	0.3	.07	n.s.	.4
4	General Attitudes	0.15	.18		.06
	Attitudes	0.9	.17		.05
	Intention	0.02	.04		.04
	Perceived Behavioral Control	0.6	.13	n.s.	.04
5	General Attitudes	0.15	.18		.07
	Attitudes	0.09	.16		.05
	Intention	0.02	.04		.04
	Perceived Behavioral Control	0.06	.13		.04
	Moral Satisfaction	0.003	.01	n.s.	.02
6	General Attitudes	0.15	.18		.07
	Attitudes	0.07	.14		.05
	Intention	0.001	.003		.04
	Perceived Behavioral Control	0.05	.11		.04
	Moral Satisfaction	0.001	.003		.02
	Subjective Norms	0.06	.12	n.s.	.05
7	General Attitudes	0.14	.17		.07
	Attitudes	0.07	.13		.05
	Intention	0.000	.000		.04
	Perceived Behavioral Control	0.04	.08		.04
	Moral Satisfaction	0.008	.03		.02
	Subjective Norms	0.07	.13		.05
	Information	0.05	.10	n.s.	.04

*$p<.001$

Discussion

The aim of the study was twofold: a) to investigate any possible relations between the variables of PBT (attitudes, intention, perceived behavioral control, moral satisfaction, information, and general attitudes) and CAIPE-R (general behavior, and modified behavior), and b) to investigate to which extent the former variables account for the latter that is to children's general and modified behaviour (accepting and interacting with disabled students) in their mainstream physical education class. To our knowledge, no similar studies have been conducted on the specific topic either in physical education or other courses. Therefore, discussion and conclusions from the present study reflect a first attempt to interpret the relation of attitudes, intentions and behaviours of primary students towards the integration of disabled students in a mainstream physical education class.

With regard to the first question of the study, results proved that general behaviour was significantly related to two of the seven PBT variables; general attitudes and moral satisfaction. In contrast, moral satisfaction was the only unrelated variable to modified behaviour. This really interesting but contradictory finding may be attributed to the fact that social admission to children of a certain age group mainly is based on their athletic ability (Ellery & Rauschenbach, 2000; Jesina, Kudlacek, Janecka, Machova, & Wittmannona, 2006; Panagiotou et al., 2009; Van Biesen, Busciglio, & Vanlandewijck, 2006). As a result, children might believe that it is moral to interact with their disabled peers (general behaviour), but when it comes to the point of performing well or even winning in a movement activity or game, they want a teammate that can execute as good as possible (modified behaviour). Nevertheless, the physical education goals (movement, cognitive, health-related fitness, and emotional/social) are strongly interrelated, and should be achieved by all students, regardless of their differences. To this end, individual improvement and social interaction are considered important elements (Derri, 2007; Ministry of Education, Lifelong Learning and Religious Affairs, 2011a, b).

Although modified behavior was unrelated to moral satisfaction, it was related to the rest of the PBT variables; attitudes, intention, perceived behavior control, subjective norms, information, and general attitudes. This result verifies the perspective that even though attitudes and intention are related to the performance of a behavior (Ajzen, 1987; 1988), there are other aspects such as subjective norms and perceived behavioral control that also influence that behavior (Ajzen & Madden, 1986). Moreover, the relation between modified behavior and information is consistent with previous research (Davidson, et al., 1985; Wilson, et al., 1989; Krosnick et al., 1993; Theodorakis, 1994; Bebetsos & Antoniou, 2004) which indicated that the amount of information available about an attitude could be a determinant of the attitude-action consistency. Finally, results showed that general attitudes are related to both general and modified behavior. In line to the Planned Behavior Theory and previous research (Magouritsa et al., 2005), the final decision of the students to accept disabled peers in the physical education class seems to be a) influenced by their general attitudes on the subject of inclusion, and b) largely determined by their modified behavior (which is directly linked on how easy or difficult they think it is to perform this task).

Nevertheless, when hierarchical chains of the variables were performed in order to answer the second study question, general attitudes played the most important role for both analyses, with the addition of attitudes on modified behaviour. Researchers speculate that the nature of the questions initiated these results; the variable of general attitudes consists of questions that are generalized on students' interaction with a disabled peer in a physical education class, while the variable of attitudes concerns the specific involvement and interaction of students with and without disabilities, within a physical education class.

It is evident that general attitudes of non-disabled students play the most important role in predicting both their general and modified behaviour towards their disabled peers, in the physical education class. Therefore, general attitudes could be used as a diagnostic tool in terms of unveiling non-disabled students' corresponding behaviors. On the other hand, taking into account the percentage of explained behavior by general attitudes, it seems that other factors play also an important role on student behaviour. Such factors could concern teacher attitudes and past experience, student education, appropriate school facilities, opinion of other important others, information etc.). Former bibliographical research supports the importance of these factors (Ajzen & Madden, 1986; Anderson, Klassen, & Georgiou 2007; Batsiou et al., 2006; Rose, 2001; Smith & Smith, 2000).

Although the study provides useful information for the schedule and the implementation of a physical education lesson that is sensitive to the inclusion of students with disabilities, it focused on children with moderate mental retardation. Therefore, its results concern only this type of disability. Also, students' responses were based on a hypothetical scenario. A real setting scenario with *John* in their class might produce different answers with regard to their attitudes and behaviors towards him.

Conclusion

In this study non-disabled students' attitudes were proved powerful in predicting their behaviour towards their disabled peers in the physical education class. Therefore, physical education teachers should evaluate students' attitudes, and take them into account during planning and teaching in order to provide all students with the appropriate learning experiences, and assist them in achieving the lesson goals. Students' specific training could improve their general attitudes and consequently generate more positive general and modified behaviors towards their peers. Also, the enhancement of teachers' knowledge and skills on the subject of inclusion in physical education, in general, and on attitudes and behaviors, in specific, could further assist the above endeavor and produce the desirable outcomes for all students.

Further research is required to evaluate the relation between students' attitudes and behaviors, by observing them during the conduction of the lesson. Also, this relation should be further studied for different types of disability in order to provide a clear understanding of students' attitudes and behaviors towards their disabled peers. Finally, future studies could investigate the effect of gender and students' previous experience with individuals with a disability on their attitudes and behaviors.

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