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**INDICATORS OF ATTITUDES TOWARD
 INCLUSION OF STUDENTS WITH
 PHYSICAL DISABILITIES IN PE IN THE
 “ATIPDPE – SL” INSTRUMENT FOR
 PROSPECTIVE SLOVENE PHYSICAL
 EDUCATORS AND GENERAL EDUCATORS**

**KAZALCI ODNOSOV BODOČIH UČITELJEV
 RAZREDNEGA POUKA IN POUKA
 ŠPORTNE VZGOJE DO INKLUZIJE OTROK
 IN MLADOSTNIKOV Z GIBALNIMI
 OVIRAMI V ŠPORTNO VZGOJO,
 PREDSTAVLJENI Z “ATIPDPE – SL”**

Abstract

The purpose of this study was to translate and adapt the ATIPDPE-R attitudinal scale (Kudláček, Válková, Sherrill, Myers, & French, 2002), an instrument based on the theory of planned behavior (TPB) of Ajzen (2000) and to examine the structure of the translated Slovene version, ATIPDPE-R-SL. The participants were 175 prospective educators: 124 females (average age = 22.47) and 51 males (average age = 23.78) enrolled in physical and general education teacher preparation programs in Slovenia. The conclusions are based on the ATIPDPE-R-SL analysis attitudinal scale of measurements of three psychological properties (components) of behavioural beliefs (attitudes toward inclusion). Three components, which came from principal component analysis, explain more than 55 % of the variance. The components were the same as in original the study: a) positive outcomes for students, b) negative outcome for teachers, and c) negative outcome for students.

Key words: adapted physical education, theory of planned behaviour, attitudes, inclusion, physical disability.

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Izvleček

Raziskava predstavlja prevod, prilagoditev in preverjanje strukture ocenjevalne lestvice ATIPDPE -R (Kudláček, Válková, Sherrill, Myers, & French, 2002), ki podaja odnose do inkluzije otrok in mladostnikov z gibalnimi ovirami v redno športno vzgojo. Lestvica temelji na teoriji načrtovanega obnašanja, Ajzen (2000). Za potrebe slovenskega prostora smo ocenjevalno lestvico poimenovali ATIPDPE-R-SL. V vzorec smo vključili 175 bodočih učiteljev razrednega pouka in športne vzgoje, med katerimi je bilo 124 ženskega (povprečna starost = 22.47) in 51 moškega spola (povprečna starost = 23.78). Vsi udeleženci so bili v zadnjem letu svojega študija. Rezultati nakazujejo tri strukture osebnih prepričanj, ki pojasnjujejo 55% variance. To so: a) inkluzija otrok in mladostnikov z gibalnimi ovirami v pouk športne vzgoje pomeni pozitivno izkušnjo za sovrstnike brez gibalnih ovir, b) inkluzija pomeni negativno izkušnjo in težave za učitelja, in c) inkluzija pomeni negativno izkušnjo za otroke z in brez gibalnih ovir. Vse tri strukture so bile izpostavljene tudi v študiji Kudláček, Válková, Sherrill, Myers, & French, 2002).

Ključne besede: prilagojena športna vzgoja, teorija načrtovanega obnašanja, odnosi, inkluzija, gibalna oviranost.

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Components of Attitudes toward Inclusion of students with physical disabilities in PE

Inclusion of students with disabilities in general education is a relatively new phenomenon in Slovene education (Lah, Herlec, Mohoric, 2005). The process of change toward more inclusive schools occurs at four levels: a) individual, b) organizational, c) regional and d) national. At the national level there is legislation and financing regarding group size, staffing ratios and the training of professionals. In 1995, a small centre for leadership in education was established, which delivers compulsory programs, seminars for heads and whole staff training. It also organizes national conferences on education management (Herlec, 2000).

At the regional and organization level we can find some forms of education of children with special needs: a) special institutions, b) special units in ordinary schools or day-care centres, c) ordinary classes or groups with periodic special treatment or instructions for children with special needs by the class teacher, special educator, psychologist, d) ordinary classes with additional assistance within or outside the classroom by a special educator, psychologist, social pedagogue, e) ordinary classes with a higher degree of additional assistance by the teacher and special educator, f) ordinary classes with normal additional assistance by the teacher and g) ordinary classes without any assistance (Herlec, 2000).

These changes have not only occurred in general education, but also in physical education. In accordance with Sherrill (2004), it is important to prepare future physical education (PE) for inclusion of students with disabilities in general physical education (GPE) settings and, in order to work effectively with prospective teachers, we must understand their attitudes towards the inclusion of children with disabilities into mainstream general education. According to planned behaviour theory (Ajzen, 1991, 2005), behaviour (e.g., including students with disabilities) is predicted by intention. Intention is influenced by attitudes toward the behaviour, subjective norms (social pressures), and perceived behavioural control (see Figure 1). These components, in turn, are influenced by behavioural beliefs, normative beliefs, and control beliefs. Attitudes are an evaluative summary of the accessible beliefs related to the consequences of behaviour.

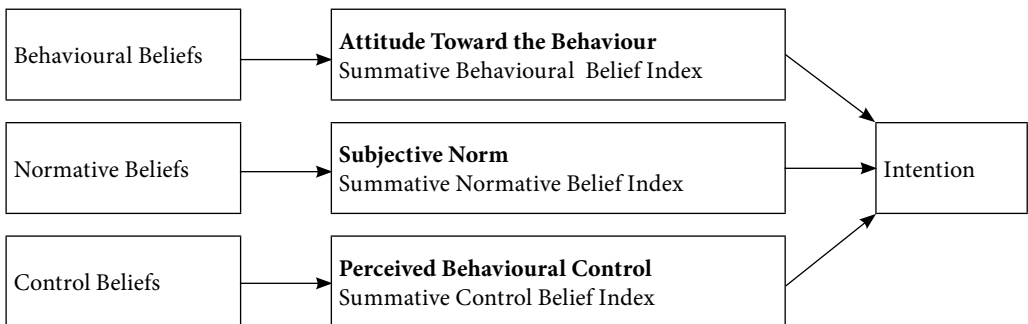


Figure 1. Diagram of the Theory of Planned Behaviour. Adapted from "The Theory of Planned Behaviour," by I. Ajzen, 1991, *Organizational Behaviour and Human Decision Processes*, 50, p. 182.

The most frequently studied component of TPB is behavioural beliefs, because this component is used to infer ATTITUDES toward the intention to perform a specific behaviour. Attitudes are often cited as important factor in successful work with students with disabilities (Downs & Williams, 1994; Folsom-Meek & Rizzo, 2002; Hodge & Jansma, 1999; Hutzler, 2003; Kozub & Lienert, 2003; Rizzo, 1985; Rizzo & Kirkendall, 1995). Rizzo (1984) was the initiator of theoretically-based research on attitudes toward teaching individuals with disabilities in GPE. Rizzo developed an instrument, now entitled the Physical Educators' Attitudes toward Teaching Individuals with Disabilities (PEATID), which is based on the theory of reasoned action (TRA) (Ajzen & Fishbein, 1980), the theory upon which TPB was built.

The main difference between TRA and TPB is the number of components influencing intentions toward specific behaviour. While TRA is based on the influence of two components: (a) attitudes, and (b) subjective norms, TPB also includes third component: (c) perceived behavioural control. PEATID uses a 5-point Likert-type scale to measure 12 behavioural beliefs about the outcomes of teaching children with disabilities in GPE. Without doubt, PEATID has become the most commonly used attitude instrument in adapted physical education (see DePauw & Karp, 1990; Downs & Williams, 1994; Folsom-Meek, Nearing, Groteluschen, & Krampf, 1999; Hodge & Jansma, 1999; Meegan & MacPhail, 2006; Schmidt-Gotz, Doll-Tepper, & Lienert, 1994).

In each of the studies using PEATID or its earlier form, PEATH, an attitude score was inferred by averaging the Likert-type ratings of 12 belief statements. PEATID has been released in its third version, examined for its structure by Folsom-Meek and Rizzo (2002), who found that PEATID-III has three factors: (a) Outcomes of teaching students with disabilities in regular classes (b) Effect on student teaching (c) Need for more academic preparation to teach students with disabilities.

The Attitude toward Inclusion of Individuals with Physical Disabilities into Physical Education (ATIPDPE) scale was developed based on TPB (Kudláček, Válková, Sherrill, Myers, & French, 2002) to assess intentions and belief systems and to use the results to personalize teacher preparation so that university students develop positive attitudes and strong intentions toward inclusion.

The results showed that the 23% of variance in intentions can be explained by three belief components based on TPB. Kudláček, Válková, & Sherrill (2002) explored the structure of the ATIPDPE instrument and found that it measures three psychological properties (components) of behavioural beliefs (attitudes toward inclusion). The three components were: a) positive outcomes for students, b) negative outcome for teachers, and c) negative outcome for students. However, the findings of Kudláček et al. (2002) and Kudláček, Válková, & Sherrill (2002) suggested that the instrument should include more items to be more balanced. Based on these suggestions, we have decided to re-examine the original ATIPDPE pilot study and have included two more items from the list based on the frequency of their occurrences, thus creating a revised version of the ATIPDPE-R attitudinal scale.

This revised instrument showed the same structure as the original ATIPDPE (Kudláček, Válková, Sherrill, 2002): a) positive outcomes for students (6 items), b) negative outcomes for teachers (2 items), and c) negative outcomes for students (4 items).

The purposes of the current study were to translate and adapt the revised ATIPDPE-R attitudinal scale, based on the theory of planned behaviour (TPB) of Ajzen (2000) and examine structure of the translated Slovene version ATIPDPE-R-SL.

METHOD

Participants

The participants were 175 prospective educators: 124 females (average age = 22.47) and 51 males (average age = 23.78) enrolled in physical and general education teacher preparation programs in Slovenia. The sampling goal was to obtain as many participants as possible. The sampling design was targeted, meaning all students were surveyed who met the criteria of (a) enrolment in PE and general education teacher preparation programs, and (b) willingness of the course instructor to allow class time for the survey.

Instrument

We used the ATIPDPE-R instrument based on the theory of planned behaviour by Ajzen (1991, 2000) as it was developed to predict the intentions of Czech students in physical education teacher preparation programs to include students with physical disabilities in general physical education classes. The Attitude Toward Teaching Individuals with Physical Disabilities in Physical Education (ATIPDPE-R) was constructed both in Czech and English languages using standard translation procedures. In 2005, we made the standard translation procedure (Banville, Desrosiers, & Genet-Volet, 2000) that led to an ATIPDPE-R version in the Slovene. Two translators were asked to independently translate the English version of ATIPDPE-R into Slovene. After that, they made one version of the Slovene ATIPDPE-R-SL questionnaire. Another two persons were asked to translate this version back into English and then again made one version. This English version was compared with the original version of ATIPDPE-R and no factual mistakes were found.

The instrument used in this study is adapted for purpose of the study. It contains an introduction to questionnaire, definitions of terms student with physical disabilities and inclusion, and detailed instructions for filling out the questionnaire. The questionnaire itself is composed of two items asking about understanding of definitions, four intention statements, 12 behavioural belief statements, two normative belief statements, two control belief statements, and 14 questions concerning the demographic data. Each ATIPDPE-R item is accompanied by a 7-point scale, as recommended by Ajzen (2000).

Table 1: Sample Item from the Attitudinal Scale

Behavioural Belief (Outcome Belief)
<p><u>Likelihood</u> Including students with physical disabilities in my PE class will help students without disabilities to learn to interact with persons with physical disabilities. Extremely Unlikely Outcome : ____: ____: ____: ____: ____: ____: ____: Extremely Likely Outcome 1 2 3 4 5 6 7</p> <p><u>Evaluation</u> Students without disabilities learning to interact with persons with physical disabilities is an: Extremely Bad Outcome : ____: ____: ____: ____: ____: ____: Extremely Good Outcome -3 -2 -1 0 +1 +2 +3</p>

The scoring system required use of two 7-point scales: a) 1 to 7 for likelihood construct, and b) -3 to +3 scale for evaluation construct. Scores for each statement were then multiplied to create item belief scores as shown in TABLE 1. The results of the multiplications were summed and thereafter referred to as the Summative Belief Index (Attitudinal Score). This index represents the state of attitude toward target behaviour. Scores for intention statements were also summed and used to create the summative intention index. The questions about normative beliefs and control beliefs were created as direct measures and they are reduced in comparison with original questionnaire, because we focused on behavioural beliefs as the main component influencing attitudes.

We argue that students cannot relate to the situation at schools and also that the perceived competence could be very distorted without personal experience (Kudláček, 2001). The scores for them were summed and were used to create a summative normative belief index and control belief index. Much research has been conducted outside of adapted physical education that uses this or a similar scoring system as well as this terminology (e.g. Baker, Morrison, Carter, & Verdon, 1996; Yordy & Lent, 1993). The scoring systems and the logic of these studies that applied the recommendations of Ajzen (2000) were followed. The internal consistency of behavioural beliefs (attitude) in ATIPDPE-R-SL reported using Cronbach Alpha was 0.73. ATIPDPE-R-SL also showed solid construct validity by determining known group differences (attitudes of APE and PE majors) in the study of Blanková (2006).

Data Analysis

Data were analyzed using SPSS PC 13.0 statistical software. First, it was necessary to determine if there were significant differences on the TPB components between females and males and among students in different years of study; one-way ANOVA revealed that there were no significant differences between the groups. This finding provided the justification for combining data for gender and year of study in the subsequent data analysis. Principal component analysis was used because this procedure analyzes all variance in shared variables and was used in comparable study of attitudes by Folsom-Meek and Rizzo (2002). Components were required to have eigenvalues above 1.0 to be included.

RESULTS

Analyses reveal that the attitudinal scale of ATIPDPE- R-SL measures three psychological properties (components). Detailed information for each item can be found in Table 2.

Three components, which came from principal component analysis, explain more than 55 % of the variance. The three components are same as in ATIPDPE-R: a) positive outcomes for students, b) negative outcome for teachers, and c) negative outcome for students.

Table 3 depicts component loadings of the 12 items. Each of the items loaded higher than the 0.40 cut off point. Most items showed excellent loadings (above 0.70). Two items loaded at 0.61 and 0.66 (Items 6, 9) and two items loaded on 0.51 and 0.58 (Items 12, 11).

Table 2: Description of the 12 Items on the Attitudinal Scale of ATIPDPE-R-SL

Component/ item.	Description	M	SD
<i>Positive outcomes for students</i>			
1.	Including students with physical disabilities in my PE class will help students without disabilities to learn to interact with persons with physical disabilities.	14.85	7.52
3.	Including students with physical disabilities in my PE class will encourage students to learn to help others	17.32	4.88
5.	Including students with physical disabilities in my PE class will teach students greater tolerance	15.61	6.83
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.)	14.49	6.54
9.	Inclusion will cause my students to have better knowledge about persons with disabilities	16.58	5.66
10.	Including students with physical disabilities in my PE will teach students cooperation.	16.36	6.26
<i>Negative outcome for teachers</i>			
2.	Including students with physical disabilities in my PE class will make teaching physical education more difficult.	0.17	7.08
4.	Including students with physical disabilities in my PE class will make lesson planning and preparation much more difficult.	- 0.12	7.17
<i>Negative outcome for students</i>			
7.	Students with physical disabilities will experience discrimination in my regular physical education classes.	- 10.58	6.27
8.	Students with physical disabilities will slow down instruction and progress in my PE class	- 4.80	6.65
11.	Students without physical disabilities will experience discrimination in my regular physical education classes.	- 7.48	6.41
12.	Including students with physical disabilities in my PE class will reduce the quality of teaching.	- 5.94	5.48

Note: Scores of all items are multiplications of evaluation and likelihood of beliefs about outcomes of inclusion of students with PD in general PE class. The possible range of scores of every item is from -21 (-3 on evaluation and 7 on likelihood) to + 21 (+3 on evaluation and 7 on likelihood)

Table 3: Component loadings, eigenvalues and percentages of variance using principal components extraction with Varimax Rotation for Total Composite Scores

Item #	Varimax components		
	1	2	3
<i>Positive outcomes for students</i>			
1	0.73		
3	0.81		
5	0.71		
6	0.61		
9	0.66		
10	0.76		
<i>Negative outcomes for teachers</i>			
2		0.88	
4		0.88	
<i>Negative outcomes for students</i>			
7			0.73
8			0.58
11			0.51
12			0.73
Eigenvalue	3.19	1.75	1.74
Percent variance	26.62	14.54	14.51

DISCUSSION

The purposes of this study was to translate the revised ATIPDPE-R attitudinal scale and examine structure of the translated Slovene version ATIPDPE-R-SL. Prospective teachers seem to be evaluating possible outcomes of inclusion (Ajzen, 2000) as both positive and negative, which is in line with the revised ATIPDPE-R scale of original ATIPDPE of Kudláček et al. (2002) as well as with instrument PEATID-III of Folsom – Meek and Rizzo (2002) also based on the Theory of Planned Behaviour. Negative outcomes are divided into outcomes of teachers (teaching and preparation more difficult) and outcomes of students (students with PD and students without disabilities). It is interesting to notice that the results of negative outcomes for teachers were not rated as badly as negative outcomes on students. However these items were evaluated more realistically as the items of the original ATIPDPE instrument.

ATIPDPE-R-SL is a solid instrument with a clear structure of its components, which match the original ATIPDPE-R. The Slovene version of ATIPDPE-R-SL also has a desirable internal consistency and is able to distinguish known group differences (attitudes of APE and PE majors) in the study of Blanková (2006).

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